

Durham E-Theses

Great Powers and the International Nuclear Weapons Order

MICHAEL WALTON BATES

How to cite:

BATES, MICHAEL WALTON (2025) Great Powers and the International Nuclear Weapons Order. Doctoral thesis, Durham University.

Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a <https://etheses.durham.ac.uk/id/eprint/16349/> is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the [full Durham E-Theses policy](#) for further details.



Title: Great Powers and the Nuclear Order

Author: Michael Walton Bates

Submitted in fulfilment of the requirements for the Degree of:

Doctor of Philosophy: Government and International Affairs

School of Government and International Affairs

Ustinov College

University of Durham

6 August 2025

Table of Contents

Table of content	i
List of Tables	viii
List of Illustrations	ix
List of abbreviations	x
Declaration	xi
Statement of copyright	xii
Acknowledgements	xiii
Dedication	xiv
Abstract	1
Chapter 1. Introduction	
1.1. Context	2
1.2. Contribution	7
1.2.1. Level 1: The International Nuclear Weapons Order (INWO)	7
1.2.2. Level 2: The English School Theory of Primary Institutions	9
1.2.3. Level 3: Case studies	14
1.3. Structure of the thesis	18
Chapter 2. Literature Review	
2.1. The International Nuclear Weapons Order (INWO)	20
2.2. Nuclear Weapons States of the INWO	21
2.3. Is One Enough?	22
2.4. Order in International Society	24
2.5. The English School	27
2.5.1. Why the English school?	28
2.5.2 The Three Traditions	28
2.5.3. The interplay of rationalism	30
2.5.4. Pragmatic historicism	30
2.5.5. Sovereignty	32
2.5.6. Responsibility	33
2.5.7. Legitimacy	36
2.5.8. Membership	38
2.5.9. <i>Raison de systeme</i>	39
2.6. Primary Institutions	39
2.7. Conclusion	40
Chapter 3. Theoretical Framework	
3.1. Primary Institutions in the INWO	42
3.1.1. Selection Criteria for Primary Institutions	44
3.2. Selected Pls of the Nuclear Order	44
3.2.1. Balance of Power	45
3.2.2. Great Power Management	46
3.2.3. War	48
3.3. Norms of the INWO	50
3.4. Secondary Institutions of the INWO	52
3.5. The relationship between Primary and Secondary Institutions	57

3.6. Current models for the INO	63
3.6.1. William Walker	63
3.6.2. Michael Smetana	64
3.6.3. Ashok Kapur	65
3.6.4. Shampa Biswas	66
3.7. Proposing a new model of the INWO	67
3.7.1. Limitations of the new model	69
3.8. Conclusion	71

Chapter 4. Method Statement

4.1. Ontology and epistemology	74
4.1.1. Social Facts	74
4.1.2. Discourse analysis	75
4.2. What are English School Methods?	75
4.3. Research Design	79
4.3.1. Research Questions	79
4.4. Research Methods	81
4.4.1. Mixed methods	81
4.5. Data Collection	81
4.5.1. Archival access	81
4.5.2. Online materials	82
4.5.3. Reliance on United States Sources	83
4.5.4. Case studies	83
4.5.4.1. Limitations of case studies	84
4.5.5. Research interviews	85
4.6. Data analysis	87

Chapter 5. The Evolution of the International Nuclear Weapons Order (INWO)

5.1. Introduction	90
5.2. What do we mean by the INWO?	92
5.3. The race for the bomb begins	93
5.3.1. Science leads the way	93
5.3.2. The Nazi Nuclear programme	94
5.3.3. Alarm raised in Washington	94
5.3.4. British nuclear programme begins	95
5.3.5. The Manhattan Project	96
5.3.6. Sharing with the Soviets?	96
5.3.7. Testing decisions	97
5.3.8. Showdown at Potsdam	98
5.3.9. Hiroshima	99
5.3.10. Nagasaki	99
5.3.11. Reflections on the race	100
5.4. The Nuclear Weapons Order emerges	101
5.4.1. Old friends—new terms	101
5.4.2. UN centre stage and Moscow strains	102
5.4.3. The Acheson-Lilienthal Report	103
5.4.4. The Baruch Plan	103
5.4.5. The Atomic Energy (McMahon) Act (1945)	103
5.5. The Cold War begins	104
5.5.1. Britain goes alone. France follows	105
5.5.2. Soviets join the nuclear club	105

5.5.3. The Korean War	106
5.5.4. Don't get MAD. Get even	107
5.5.5. Extended deterrence, the weakest link?	108
5.5.6. Atoms for Peace	109
5.5.7. Peaceful uses/The Atomic Energy Commission	111
5.5.8. Testing opinion	112
5.5.9. The Irish Question	113
5.6. The Cuban Missile Crisis	114
5.6.1. Background to events	114
5.6.2. The Organisation of American States (OAS)	115
5.6.3. Belief in rationality shaken	116
5.6.4. Never waste a 'good' crisis	117
5.6.5. Lessons learned	118
5.7. The long road to the Non-proliferation Treaty (NPT)	118
5.7.1 Nuclear Free Zones	119
5.7.2. NPT	119
5.7.3. Structure of the NPT	120
5.8. Nuclear salience declines	121
5.8.1. SALT and Light and arms control	121
5.8.2. Peaceful Nuclear Explosions	122
5.8.3. Problems lead to progress	123
5.9. Reagan-Gorbachev Era	124
5.9.1. Star Wars (SDI)	124
5.9.2. Geneva breakthrough	125
5.10. End of the Cold War	126
5.10.1. Second Nuclear Age	126
5.10.2. Golden era for Arms Control	126
5.10.3. Fresh START	128
5.10.4. Consensus complications	129
5.10.5. The Nuclear Security Agenda	129
5.11. Conclusion	131

Chapter 6. Great Power Management and the INWO

6.1. Introduction	134
6.2. Who are the great powers?	135
6.2.1. Indicators of Great Power status	135
6.3. What is 'Great' power in the INWO context?	137
6.3.1. Global Nuclear Weapons Spending Comparison	137
6.3.2. 'More greatness than power'	138
6.3.3. The 'Halo' effect	139
6.3.4. Soft Power	140
6.4. 'Great Power Management' in the INWO	141
6.5. Great Power Responsibility	144
6.5.1. 'absolute power corrupts absolutely'	145
6.6. Trust in the INWO	146
6.6.1. 'trust and verify'	147
6.6.2. The Chemical Weapons Convention	148
6.6.3. UK leadership on verification	149
6.6.4. IPNDV	150
6.7. Great Power Restraint	151
6.7.1. Upholding institutions	153
6.7.2. Great Power Management Scorecard	154
6.7.3. Vienna 'nerve centre' of INWO	154

6.7.4. Nuclear sharing	155
6.7.5. Great power transitions	157
6.8. Great Power Practice in the INWO	158
6.8.1. NPT RevCon--Preparatory Committee	158
6.8.2. TPNW negotiations	161
6.8.3. The IAEA	164
6.9. The Way forward?	166
6.10. Conclusion	169

Chapter 7. Case Study 1: The Prague Agenda

7.1. Introduction	170
7.2. Comparison of theory and empirics	171
7.2.1. Presidential transitions	171
7.3. The Road to Prague	173
7.3.1. Nuclear terrorism	173
7.3.2. Obama the realist, rationalist or idealist	174
7.3.3. 'Partnership' with Russia	175
7.4. The 'Other Agenda' <i>Wall Street Journal</i> (2007)	176
7.4.1. <i>WSJ</i> Global 'fall-in'	177
7.5. The Promise of Prague	180
7.5.1. Wall Street and Main Street clouds	181
7.5.2. The Speech takes shape	181
7.5.3. Great Expectations	182
7.5.4. Pyongyang tries to derail speech	183
7.6. The Prague Speech	184
7.6.1. Pledges of Prague	184
7.6.2. Comparing Prague with DePaul (2007)	185
7.6.3. Comparing Prague with the <i>WSJ</i> (2007)	186
7.6.4. Comparing Prague with NPT (2000)	187
7.7. The 'Prague Spring'	188
7.7.1. The Moscow Summit (2009)	188
7.7.2. UNSC Special Session (2009)	189
7.7.2.1. Comparing Prague with UNSC 1887	190
7.7.3. The Nobel Peace Prize (2009)	191
7.7.4. New START (Old realities)	193
7.7.5. Nuclear Posture Review (NPR)	195
7.7.5.1. Comparing Prague with the NPR	197
7.7.5.2. NPR: Key Word Analysis	198
7.7.6. Nuclear Security Summits	198
7.7.6.1. U.S. 'net favourability' changes	199
7.7.6.2. 'House Gifts' concept	201
7.7.7. NPT Review Conference 2010	203
7.8. Iran Sanctions	
7.8.1. Why Iran?	208
7.9. Lisbon Summit/ NATO-Russia Council	208
7.10. The 'defenestration' of Prague	209
7.10.1. The White House v Congress	209
7.10.2. The President's delivery problem	210
7.10.3. Libya (2011)—'The tipping point'	211
7.11. Conclusion	213
7.11.1. The Prague Scorecard	213

Chapter 8. Case Study 2. The P-5 process

8.1. Introduction	219
8.2. Context and approach	220
8.2.1. Decline in P-5 relations (2003-2009)	220
8.2.2. Limited sources	221
8.2.3. UK thought leadership	222
8.2.4. Contribution to the literature	223
8.3. The Road to London (2009)	224
8.3.1. UK a unique nuclear power	224
8.3.2. The U.S.-UK special 'nuclear' relationship	224
8.4. The origins of the P-5 process idea	226
8.4.1. UK Trident renewal (2006)	226
8.4.2. Tribulations over Trident (2007)	227
8.4.3. Motivations in Whitehall	227
8.4.4. The Beckett Speech in Washington (2007)	229
8.4.5. The Browne Speech in Geneva (2008)	230
8.4.6. Text analysis Browne (2008)	231
8.4.7. Text analysis Beckett (2007)	232
8.4.8. Comparison with Obama's Prague agenda	233
8.5. P-5 process 'all things to all men'	234
8.5.1. The British approach	235
8.5.2. 'A slow train coming'	235
8.5.3. Bringing the P-4 on board	236
8.5.3.1. The Russian Federation	237
8.5.3.2. The United States	238
8.5.3.3. People's Republic of China	239
8.5.3.4. France	241
8.5.4. Patient British diplomacy	242
8.5.5. Part of the Prague Agenda	244
8.6. First Meeting of the P-5 process (2009)	244
8.6.1. Transparency and trust	245
8.7. The 2010 NPT Review Conference	246
8.8. P5-process work agenda	249
8.8.1. Confidence building	249
8.8.2. 'Inside the Room'	250
8.8.3. Working Groups	252
8.8.4. Glossary of Terms	252
8.8.5. Nuclear doctrines	254
8.9. Assessments of P-5 performance	256
8.10. Next steps—P-5 goes to Washington	257
8.11. How does the P-5 process affect the concept of GPM?	261
8.12. Conclusion	262
8.12.1. Findings v thesis claims	264

Chapter 9. Conclusions.

9.1. Main argument	265
9.1.1. Research questions	265
9.2. Main findings	266
9.2.1. The construction of order in the INWO	266
9.2.2. The INWO logic—n+1	266

9.2.3. Testing unity	267
9.2.4. Shared interests	268
9.2.5. Stigma and social facts	269
9.2.6. Empirical evidence for findings	270
9.3. Theoretical findings—The English School of IR	271
9.3.1. Pragmatic historicism	271
9.3.2. Rationalism	272
9.3.3. Institutionalism	274
9.3.4. Explaining ‘baffling complexity’	274
9.3.5. The consensus challenge	276
9.3.6. Security dilemma	276
9.3.7. Epistemological limitations	278
9.3.8. Order v Justice in the INWO	279
9.4. Primary Institutions and the INWO	281
9.4.1. War <i>avoidance</i>	281
9.4.2. Balance of Power	284
9.4.3. Great Power Management	287
9.4.5.1. Great Power Responsibility	289
9.4.5.2. Great Power Index	290
9.4.5.3. Great Power Institutions	291
9.4.5.4. ‘Goodnight Vienna?’	291
9.5. Case Studies. Main findings	292
9.5.1. The Prague Agenda	292
9.5.2. The P-5 process	294
9.5.2.1. Passing the baton to Washington?	296
9.6. Limitations of the research	298
7.6. Concluding reflection	300

Appendix:

Appendix 1. Institutions of The International Nuclear Weapons Order	304
---	-----

Bibliography:

	307
--	-----

List of Tables

Table 1: Comparative Summary of the Primary Institutions	40
Table 2. Norms of the International Nuclear Weapons Order	47
Table 3. Civil Society/ NGOs of the INWO	65
Table 4. Indicators of Great Power	125
Table 5. Uranium/Plutonium Production	128
Table 6 Great Power Management Scorecard	142
Table 7. NPT national delegation size	147
Table 8. IAEA budget shares of major powers	153
Table 9. Nuclear weapons dialogues	156
Table 10. Comparison of findings with Prague Agenda case study.....	160
Table 11. The Pledges of Prague.....	173
Table 12. Prague v DePaul University speech (2007).....	173
Table 13. Prague v Wall Street Journal opinion (Schultz et al.) (2007).....	174
Table 14. Prague v NPT RevCon ‘Thirteen Steps’ (2000).....	175
Table 15. Prague v UNSC 1887 (2009).....	178
Table 16. Prague v Nuclear Posture Review (2010).....	185
Table 17. Keyword analysis—NPR 2010.....	186
Table 18. ‘Net favourability’ attitudes to the United States (2009)	187
Table 19. Prague v NPT Review Conference (2010).....	193
Table 20. Correlation Summary to Prague Agenda.....	199
Table 21. The Prague scorecard	200
Table 22. Textual analysis of Des Browne (2008) speech.....	217
Table 23. Textual Analysis of Margaret Beckett’s (2007) speech.....	218
Table 24. Comparison of UK Initiatives with Prague Agenda	219
Table 25. Comparison of research findings with P-5 case study.....	248

Legend
Full match between pledges
Partial match between pledges
No match between pledges
Additional pledge

List of Illustrations

1: Conceptualisation of the thesis	5
2. Estimated Nuclear Warhead Inventories (FAS, 2024)	22
3. The Three Traditions.....	27
4. Nuclear Explosion Yields Compared.....	50
5. A timeline of new nuclear weapons states (SIPRI).....	51
6. How U.S. and Russian Nuclear Arsenals Have Evolved.....	52
7. Composite Model of World Order (Navari, 2020: 262).....	55
8. William Walker’s schematic of the international nuclear order (2012:84).....	58
9. Michal Smetana’s nested nuclear order (2020: 100).....	60
9. Shampa Biswas’s nuclear non-proliferation regime (2014: 37).....	62
10. A new model of the INWO.....	63
11. The shape of the International Nuclear Weapons Order.....	85
12. Annual Change in the Size of the U.S. Nuclear Stockpile (1945-2016).....	103
13. Global Nuclear Weapons Spending (ICAN, 2023).....	127
14. U.S. v China United Nations contributions (Stimson Center, 2022).....	157
15. The Prague Agenda Speech Thematic Analysis	172
16. The Structure of the P-5 process (ELN, 2022).....	235

List of Abbreviations

ABM	Anti-ballistic Missile Treaty
AWE	Atomic Weapons Establishment
BCC	Bilateral Consultative Commission
BMD	Ballistic Missile Defence
TPNW	Treaty on the Prohibition of Nuclear Weapons
CD	Conference on Disarmament
CBW	Chemical and biological weapons
CEND	Creating and Environment for Nuclear Disarmament
CTBT	Comprehensive Test Ban Treaty
CTBTPrepCom	Comprehensive test Ban Treaty—Preparatory Commission
EMDC	Eighteen Member Disarmament Commission
FCDO	Foreign Commonwealth and Development Office
FMCT	Fissile Material Cut-off Treaty
HI	Humanitarian Initiative
HCOC	Hague Code of Conduct on Ballistic Missile Proliferation
IAEA	International Atomic Energy Commission
ICBM	Inter-continental Ballistic Missile
ICJ	International Criminal Court
IMS	International Monitoring System
INF	Intermediate-Range Nuclear Forces Treaty
IPNDV	International Partnership for Nuclear Disarmament Verification
JCPOA	Joint Comprehensive Plan of Action
LANFZ	Latin America Nuclear Free-Zone Treaty
LTBT	Limited Test Ban Treaty
MAD	Mutually Assured Destruction
MDA	UK-U.S. Mutual Defence Agreement
MTCR	The Missile Technology Control Regime
New	START New Strategic Arms Reduction Treaty
NPT	Nuclear Non-Proliferation Treaty
NPTRevCon	Non-Proliferation Review Conference
NPTPrepCom	Non-Proliferation Preparatory Committee
NSA	Negative Security Assurance
NSG	Nuclear Suppliers Group
NWS	Nuclear Weapons States
NNWS	Non-Nuclear Weapons States
NPDI	Non-proliferation and Disarmament Initiative
OEWG	Open-ended Working Group
PNE	Peaceful Nuclear Explosions Treaty
SALT	Strategic Arms Limitation talks
START	Strategic Arms Reduction Treaty
SLBM	Submarine Launched Ballistic Missile
SORT	Strategic Offensive Reductions Treaty
TPNW	Treaty on the Prohibition of Nuclear Weapons
TTBT	Threshold Test Ban Treaty
UNODA	United Nations Office of Disarmament Affairs
WMD	Weapons of Mass Destruction

Declaration

This thesis is the result of my own work. Material from the published or unpublished work of others which is used in the thesis is credited to the author in question in the text. The copyright of the thesis rests with the author. No quotation from it should be published without the author's written consent and information derived from it should be acknowledged.

Signed: _____

Printed Name: Michael Walton BATES

Date: 06/08/2025

Statement of Copyright

Copyright in text of this Independent Study rests with the author. Copies (by any process) either in full, or extracts, may be made only in accordance with instructions given by the author. Details may be obtained from the appropriate Faculty Office. This page must form part of any such copies made. Further copies (by any process) of copies made in accordance with such instructions may not be made without permission (in writing) of the author.

This copy has been provided under licence to the University to share in accordance with the University's Open Access Policy, and is done so under the following terms:

- this copy can be downloaded for personal non-commercial research or study, without prior permission or charge.

- any quotation from the work (e.g. for the purpose of citation, criticism or review) should be insubstantial, should not harm the rights owner's interests, and must be accompanied with an acknowledgement of the author, the work and the awarding institution.

- the content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.

Copyright © Michael Bates 2025

Acknowledgments

First, I would like to thank my supervisors, Professor John Williams and Professor Clive Jones who have been outstanding. I could not have made it this far without their support and encouragement. More than once I have come close to giving up, and they encouraged me to keep going. They were demanding in terms of academic standards but clear in what needed to be done. The thesis and I benefited greatly from their active engagement, and I am immensely grateful to them both.

I wish to thank the SGIA and Ustinov College, especially my fellow PhD candidates in the SGIA-PhD-Association from whom I learned so much. Also to Dr Maria Dimova-Cookson, Directors of PGR Studies and Lauren Todd, PGR Co-ordinator for creating a team spirit in what can be a long and lonely endeavour.

Finally, I want to thank my family and friends. Most of all, I want to thank Xuelin for supporting and encouraging her husband in the pursuit of yet another 'crazy dream'.

As a (very) mature student, I am immensely grateful to the University of Durham for granting me an academic second-chance at the PhD journey, which I first began in 2006. Being a student in your sixties is an unusual experience, but it shouldn't be. I believe returning to formal education late in life can be a mutually beneficial experience for the student, the university and wider society.

I am very grateful to the forty-two individuals who agreed to be interviewed for this research. Their insights, generosity of time and interest, and openness have strengthened the research and conclusions. Education, especially research, relies on human goodwill, and it is incredible how often that is forthcoming and how rare it is not.

P.S. I uploaded this thesis for examination at 8:15 AM (local time) on 6 August 2025 from the City of Hiroshima at the commencement of a 289.86-mile solo walk to Nagasaki to mark the 80th anniversary of what I hope and pray will always be the first and last time atomic bombs were used in warfare.

Dedication:

Ruth Bates

1938-2023

Abstract

This research takes the English School approach to the study of international relations and applies it to the international nuclear order. It finds evidence for the existence of classical primary institutions identified by Hedley Bull, but argues that some, especially War, Balance of Power and Great Power Management, need to be understood in different ways in the context of the nuclear order. The thesis argues that what makes the international nuclear order unique amongst other global orders is the power of nuclear weapons—‘the absolute weapon’--and that it is an order maintained by and for states. It is, therefore best examined as an Inter-national Nuclear Weapons Order (INWO) rather than a Global Nuclear Order. It argues that, despite much of the current research claiming the nuclear order is in decline, it remains stable and rational. This stability is based on a shared interest between Nuclear Weapons States and Non-Nuclear Weapons States in nuclear non-proliferation and nuclear security. These interests are evident in the ‘baffling complexity’ of secondary institutions and initiatives in the non-proliferation and nuclear security area. Moreover, cooperating as nation-states to prevent proliferation, the order displayed a remarkable sense of rationality, restraint and responsibility. Finally, the research applies some of the claims made about the INWO to two case studies: The Prague Agenda and the formation of the P-5 process. Regarding the Prague Agenda of Barack Obama, it is claimed that it was misunderstood from the outset as a disarmament agenda that failed to deliver its intended results. However, it actually focused on a non-proliferation and nuclear security agenda, and it achieved most of what it set out to accomplish. This was because of the unique role of United States leadership in the INWO: with the U.S., anything is possible; without them, nothing is possible. The P-5 process was a U.K. initiative aimed at building confidence between NWS. Remarkably, the P-5 process is still ongoing, but its prospects have weakened because the leadership is not drawn from the United States. However, paradoxically, this may also explain why it is one of the few that continues to function in the current geopolitical setting. This underlines the argument for an INWO that is both more stable and more rational than claimed elsewhere in the literature. However, the fact that nuclear weapons have not been used in combat for almost eighty years is more down to ‘luck’. The increasing sophistication of command-and-control systems involving AI, the shortening of reaction times due to hypersonic missile technologies, and the growing threats of cyberattacks mean that the likelihood of an accident or miscalculation is rising rapidly. The final argument is, therefore, that maintaining 3904 deployed nuclear warheads on alert is irresponsible, strategically unnecessary and counter-productive to the wider non-proliferation and nuclear security agenda.

Chapter 1. Introduction

1.1 Context

The purpose of this thesis is to engage with one, if not the most profound, questions facing humanity: the aversion to nuclear war. Jonathan Schell in his book *The Fate of the Earth* (1982) wrote of nuclear weapons:

They grew out of history, yet they threaten to annihilate man. They are a pit into which the whole world can fall—a nemesis of all human intentions, actions and hopes. Only life itself, which they threaten to swallow-up, can give a measure to their significance. Yet in spite of the immeasurable importance of nuclear weapons, the world has declined, on the whole, to think about them very much.¹

The conclusion that ‘the world has declined, on the whole, to think about them very much’ is also borne out by recent public opinion research carried out for The Elders into existential threat perceptions. It found that nuclear threats ranked below climate change, pandemics and AI.² On the eightieth anniversary of the first and last time nuclear weapons have been used in military conflict, this is the aim of the research: to encourage IR scholars, policymakers and the public to ‘think more about nuclear weapons’. This is the motivation for this research.

The metaphorical *Doomsday Clock* has been set by the Bulletin of the Atomic Scientists annually since 1947 to indicate how close humans are to destroying our world with nuclear weapons. Following the near miss of the Cuban Missile Crisis (1962), it was set at 12 minutes to Midnight. This year (2025), the Clock was set at 89 seconds to Midnight, the closest to an extinction event humanity has ever been.³ The Editor of the Bulletin, John Mecklin, concluded the 2025 statement:

Blindly continuing on the current path is a form of madness. The United States, China, and Russia have the collective power to destroy civilisation. These three countries have the prime responsibility to pull the world back from the brink⁴

Yet, public opinion research carried out by the Pew Research Centre also finds that China, Russia and the United States are the countries most widely viewed as international threats.⁵ So the countries representing the greatest threat are also those we rely on to

¹ Schell, J., 1982. *The fate of the Earth*. New York: Alfred A. Knopf, p.3-4.

² The Elders, 2024. Existential Threats published 20 September 2024 (Climate change 76%; Pandemics 71%; AI 60% and nuclear weapons 58%).

³ Bulletin of Atomic Scientists, 2025. ‘[Closer than Ever](#)’, the 2025 Doomsday Clock Statement, published 28 January 2025.

⁴ Ibid.

⁵ Pew Research Centre, 2025. [Who do people think is their country’s greatest threat?](#) By Janell Fetterolf, Laura Clancy and Jordan Lippert, published 8 July 2025

avert that threat. This highlights the core problem which this thesis grapples with great power management and the nuclear order. How do great powers maintain order in the world of nuclear weapons? Or are they the causes of disorder? To some, this is simply a question of measuring and balancing capabilities and power. To others, this is an issue so great and impactful on humanity as a whole that it cannot be left to three nations, no matter how powerful, to resolve alone. Nuclear weapons directly threaten all nations, all life, not just those with nuclear weapons.⁶

In answer to the former position, i.e. that the great powers fulfil a management role in the order, the P-5 nuclear weapons states⁷ jointly declared as recently as January 2022, ‘We affirm a nuclear war cannot be won and must never be fought.’⁸ Yet, less than two months later, following the invasion of Ukraine, former Russian president Dmitry Medvedev warned that continued NATO military support for Ukraine risks starting a “fully fledged nuclear war”.⁹ In August 2025, U.S. President Donald Trump issued a post on Truth Social that he was ordering two nuclear-capable submarines to the ‘appropriate region’ to counter the Russian ‘nuclear threat’.¹⁰ And still the clock ticks ‘closer than ever’.

The ‘rules-based order’ was founded on the United Nations Charter, which declared the ‘equal rights of men and women and of nations large and small’.¹¹ Member states may point to the first resolution of the UN General Assembly that called for ‘the elimination from national armaments of atomic weapons and all other weapons adaptable to mass destruction’.¹² On 21 January 2021, the Treaty on the Prohibition of Nuclear Weapons (TPNW) entered into force in international law. The TPNW currently has 95 signatories and 74 state parties.¹³ And still the clock ticks ‘closer than ever’.

Yet, there is a paradox: In 1960, John F. Kennedy predicted a world of “10-15 or 20” nuclear weapons states; instead, there are currently nine. Moreover, four countries, Belarus, Kazakhstan, South Africa and Ukraine gave up nuclear weapons and joined the Nuclear Non-

⁶ Sagan, C. 1985. Nuclear War and Climate Catastrophe, Chapter 2, in Holroyd, F.C. (eds.). Thinking about Nuclear Weapons published by Croom Helm Limited (Routledge).

⁷ United States, Russia, China, France and the United Kingdom recognised nuclear weapons states under the Nuclear Non-Proliferation Treaty (1968).

⁸ The White House Archive: [Joint Statement of the Leaders of the Five Nuclear Weapons States on Preventing Nuclear War and Avoiding Arms Races](#), published 3 January 2022.

⁹ House of Commons Library, 2024. [Russia’s use of nuclear threats during the Ukraine conflict](#) by Clair Mills, published 20 December 2024 (No. 9824, p.4).

¹⁰ The Guardian, News Report, 2025. [Trump moves nuclear submarines after ex-Russian president’s menacing Tweet](#) by Andrew Roth, published 2 August 2025.

¹¹ [Preamble to the United Nations Charter](#).

¹² UNGA Resolution [A/RES/L \(I\)](#) 24 January 1946 and agreed to unanimously (47-0-0).

¹³ UNODA. [Treaty on the Prohibition of Nuclear Weapons](#). ICAN, ‘[TPNW signature and ratification status](#)’ accessed 4 October 2025.

proliferation Treaty. The number of nuclear warheads has reduced from a peak of 70,481 (1986) to 12,200 (2025). Between 1945 and 1996, when the Comprehensive Test Ban Treaty was signed 1996 there were 2044 nuclear weapons tests carried out. Since 1996, there have only been 12; only North Korea has carried out nuclear weapons tests this century.¹⁴

To complete the nuclear conundrum we need to consider 'the dog that didn't bark': In 1960, the British novelist C. P. Snow wrote on the front page of *The New York Times* that unless the nuclear powers drastically reduced their nuclear armaments, thermonuclear warfare within the decade was a "mathematical certainty." They did not. The nuclear stockpiles doubled from 20,000 to 40,000, and the number of nuclear-weapon states doubled too. Forty-five years later, Thomas C. Schelling used Snow's quote in his Nobel Prize acceptance speech for the 2005 prize in economics, stating: The most spectacular event of the past half century is one that did not occur. We have enjoyed sixty years without nuclear weapons exploding in anger.¹⁵ The 'spectacular event' to which Schelling referred has now been extended to eighty years. Why?

The hypothesis that this thesis will test is that the international nuclear order is more stable than we may think, and its actors are more rational. What holds it together? It is proposed that what unites all nuclear 'haves' and 'have-nots' is an absolute agreement on the need to avoid nuclear proliferation. It is the one thing, the only thing on which they can agree. If you are a nuclear weapons state, then another nuclear weapons state is only going to dilute your advantage in the system. If you are a non-nuclear weapons state, then another nuclear weapons state is only going to heighten your disadvantage in the system. Those without nuclear weapons may be willing to tolerate the inequalities and injustices of the system, provided that the nuclear non-proliferation order is maintained. In this sense, the order is as rational as it is also socially constructed.

To test this, we need a theoretical framework that is flexible enough to capture the interactions of states in a highly complex and often opaque order. The theoretical framework chosen was the English School. Whereas *realism* emphasises the protection and projection of national and vital interests, *revolutionism* seeks global social justice, the English school draws on the tradition of *rationalism*, where states adhere to shared

¹⁴ SIPRI, 2025. Yearbook, Stockholm International Peace Research Institute.

¹⁵ Schelling, T. C., 2005. [An Astonishing Sixty Years: The Legacy of Hiroshima](#) published by the Nobel Prize Organisation

values, acknowledge certain pre-existing primary institutions, and cooperate to achieve common interests. Hedley Bull¹⁶ described this phenomenon as international society:

A society of states (or international society) exists when a group of states, conscious of certain common interests and common values, form a society in the sense that they conceive themselves to be bound by a common set of rules in their relations with one another, and share in the working of common institutions.¹⁷

In Hedley Bull's celebrated essay 'Society and Anarchy' written when he was only 29 years old, he argued that 'The salient fact of international relations' was not conflict amongst states 'but co-operation among sovereign states' (2019: 58).¹⁸

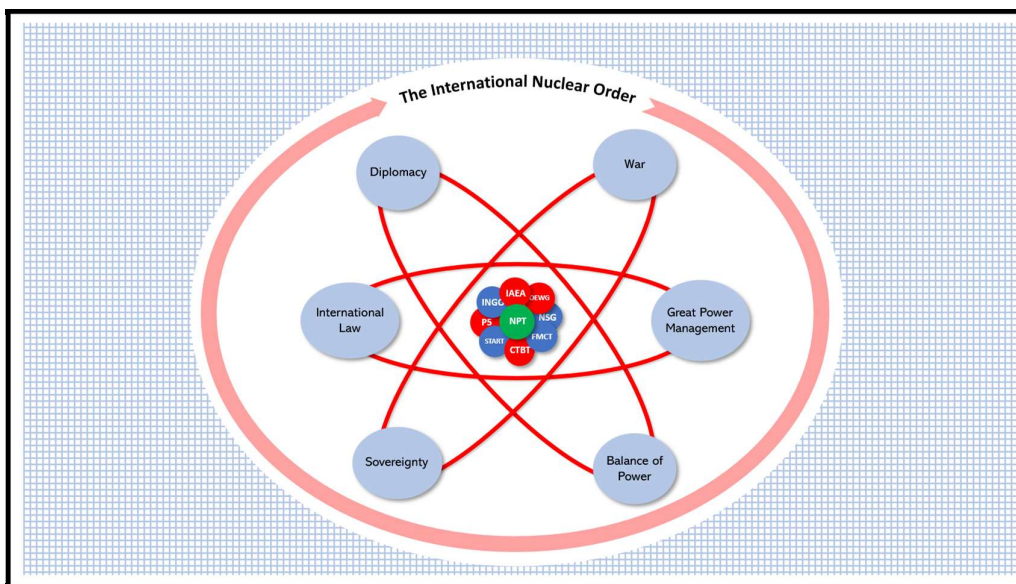


Illustration 1: Conceptualisation of the thesis

The conceptualisation of the international nuclear weapons order (Illustration 1, above) sets the order within wider international society, but it is distinctive, both in terms of the role of certain primary institutions, the creation of secondary institutions that result and the interactions between both. It is these institutional interactions and the context of international society that give rise to order. Here, we acknowledge two of the defining

¹⁶ Hedley Bull (1932-1985) was a member of British Committee on the Theory of International Politics from which the English school would evolve and later held the Montague Burton Chair of International Relations at the University of Oxford (1977-1985). His seminal work, *The Anarchical Society: A Study of Order in World Politics* published by Palgrave (1977) is the foundational text of the thesis—the edition used is the Third Edition (2002).

¹⁷ Bull, H., 1977. *The Anarchical Society*: London, p.13.

¹⁸ Chapter 2 in *Diplomatic Investigations* (Butterfield and Wight eds., 1967) using the 2019 version published by Oxford University Press.

characteristics of the English school: order and institutions. "Order" is the chief preoccupation of the English School writers (Linklater and Suginami, 2006: 56).

Order is seen as the primary public good of the nuclear order. For Bull, order, was the pre-eminent problem for international relations and the objective of enquiry was that of 'identifying and strengthening the foundation' of order.¹⁹ Bull defined 'order' as 'a pattern of human activity that sustains elementary, primary or universal goals' (Bull, 1977: 5).

The goals of the nuclear weapons order are, it is argued, twofold: first to avoid a nuclear war and second, to avoid horizontal proliferation.²⁰ As Hedley Bull put it succinctly, in the international nuclear order, 'questions of justice are less important than questions of order' (Alderson and Hurrell, 2000: 219). This is important because that is not his conclusion about order in international society as a whole, which sought to balance order and justice, in a 'great society of all mankind' (Bull, 1977: 21), but specifically about the nuclear order. Hence, the nuclear order is claimed to be distinctive/unique.

The thesis explores and tests this conceptualisation of the international nuclear weapons order through two case studies. The case studies chosen were the Prague Agenda of Barack Obama and the UK-initiated strategic dialogue of nuclear weapons states, the P-5 process. The reasons for selecting these cases, and their limitations, are discussed further below.

The English school's understanding of an international society emphasises that such a society is produced and sustained through the ongoing interactions and practices of states, principally, and the thesis argues that the international nuclear weapons order is overwhelmingly a statist order, choosing two recent state-led initiatives makes some initial sense. The goal of understanding how, why, and to what effect these initiatives came about provides an opportunity to explore in detail the workings of the international nuclear weapons order in a way that the English school has rarely done in the past.

1.2. Contribution

The 'English school' and 'International Security Studies' are names that are seldom found in the same sentence. Few if any people working within mainstream international security studies would think about the English school (ES) as a body of either theory or empirical work relevant to Security Studies. (Buzan, 2009: 34)

¹⁹ Vincent, R.J., 1990. 'Order in International Politics' in Miller, J.D.B. and Vincent, R.J. (eds.) Order and Violence, Oxford University Press. Chapter 3, p.38-39.

²⁰ Horizontal proliferation is a term used to refer to nuclear proliferation to other state, or, non-state, actors. It contrasts to vertical proliferation which is that which occurs amongst existing nuclear armed states.

Whilst there is a vast body of literature on nuclear weapons it is heavily weighted to the realist end of security studies spectrum where the focus tends to be on nuclear deterrence, or the idealist end of the International Relations spectrum where the focus tends to be on nuclear disarmament. This research seeks to address a gap in the literature which comes from the rationalist tradition of IR represented by the English School and its focus is on (horizontal) non-proliferation. The research seeks to contribute to the literature at a number of levels:

1.2.1: Level 1: The international nuclear weapons order (INWO)

The nuclear order has been the subject of extensive analysis. Major studies include: Allison (2010); Biswas (2014); Cimbala (1993); Craig (2019); Egeland (2021); Falk (1977); Hurrell (2007); Horsburgh (2015); Kapur (2015); Knopf (2022); Kutchesfahani (2019); Müller (2020); Paul (1998); Ritchie (2019); Smetana (2020); Walker (2012) and Yost (2007). A common approach of the existing literature is to consider the nuclear order in terms of weapons and peaceful civilian uses such as nuclear power.

There is a strong argument for adopting this approach of referring to a global nuclear order: (a) The Nuclear Non-proliferation Treaty (NPT) covers weapons and peaceful uses. (b) Nuclear weapons and nuclear power generation use the same fundamental process of enrichment in the case of uranium, whilst plutonium is a by-product of nuclear power generation and (c) they share common secondary institutions, most notably the International Atomic Energy Agency (IAEA). However, a central claim of this research is that what makes the nuclear order exceptional is nuclear weapons.

They are the 'absolute weapon' (Brodie, 1947). Hans Morgenthau believed the threat of nuclear war "suggests the abolition of international relations" requiring the "merger of all national sovereignties into one world state which would have a monopoly over the most destructive instruments of violence" (1961: 231). "A nuclear war can never be won and must never be fought" declared the P-5 leaders in 2022. Nuclear power generation and the use of radioisotopes in medicine do not require exceptional orders. Nuclear weapons do. This is the basis for making the decision to disaggregate the global nuclear order to examine more closely the international nuclear weapons order.

Through taking this approach of breaking out nuclear weapons from the global nuclear order it is possible to address more closely what holds the order together. Here a further contribution is made and a new model of the nuclear order presented. The claim is that what holds the INWO together is a unity of purpose, a common goal, and that goal is

nuclear non-proliferation. It is the one thing which all states agree upon: they do not want another nuclear weapons state, and certainly do not want nuclear materials to fall into the hands of non-state actors. As Adam Watson would put it, this is the *raison de système* (1992: 14)²¹ of the INWO, the ‘belief that it pays to make the system work’, it is why states cooperate at a deep and sustained level.

In the proposed new model of the INWO, ‘non-proliferation’ is placed at the base of the pyramid as the unifying basis of the INWO. The ‘non-proliferation’ referred to here is the horizontal proliferation to current non-nuclear weapons states, or non-state actors. The claim is made that this is something on which all nuclear weapons states (NWS) and non-nuclear weapons states (NNWS, with the possible exception of Iran) are in agreement, which underpins the claim that the INWO is more robust, more orderly and more rational than has hitherto been acknowledged. The new model of the INWO and the claim of robustness and rationality are the key contributions to the literature in this field.

Finally, at the level of the INWO the research seeks to make a further contribution. This is to map the INWO in all its “baffling complexity” (Walker, 2012: 25). Embarking upon this research, I searched for a table or index which would provide an accurate and up to date summary of the various treaties, agreements, institutions, organisations, dialogues, norms and civil society groups which comprise the INWO. I could not find one source. In the process of the primary research and semi-structured interviews, all participants were sent a list of 64 elements of the INWO compiled from existing sources and were asked ‘What is missing?’. As a result, the list expanded to over 120 elements²² which are listed in Appendix 1. This is further contribution to the literature.

1.2.2: Level 2: The English School Theory of Primary Institutions

The English School holds that there is something prior to organisations of international society such as in the case of the INWO, the United Nations, Nuclear Non-proliferation Treaty or the International Atomic Energy Agency. These are ‘primary’ institutions. They are the ‘social and political processes that underlie international society’ (Simmons and Martin, 2001: 197), ‘historically evolved social ordering practices’ (Schmidt and Williams, 10-11) which sustain international order. Organisations of the INWO or the international

²¹ For a helpful expansion of the concept of *raison de système* see: Terradas, N., 2025. More than a catchphrase: rethinking Adam Watson's *raison de système* in international society. *International Politics*, 62(1), pp.170-196.

²² The table in Appendix 1 lists 93 distinct elements but some of the treaties are summarised such as ‘Hotline Agreements’ and ‘Nuclear Weapons Free Zones’ which comprise multiple regional and bilateral agreements.

order do not appear *ex nihilo*. For Kalevi Holsti, these primary institutions are the 'context within which the games of international politics are played' (2004: 18). This is central to the claims as Charlotta Friedner Parrat states that it is the 'basic wager' of the English School that institutions maintain order in international society (2017: 623). Hidemi Suganami has emphasised the focus of the English school on institutions as being the basis of order:

I called them [English school scholars] 'institutionalists' in view of their interest in identifying, and investigating the workings of, the institutions of international society, or a cluster of social rules, conventions, and practices that provide its members with a framework for identifying what is the done thing and what is not in the day-to-day management of their interactions.²³

The question of what is and is not a primary institution has been keenly debated in the existing literature (see Table 2) and these alternative primary institutions are discussed in Chapter 3. It has even been proposed that the international nuclear order should have its own primary institutions (Smetana, 2020).²⁴ However, the approach taken is that the classical institutions identified by Hedley Bull in what is the foundational text of the research, *The Anarchical Society* (2002) (sovereignty, balance of power, international law, diplomacy, great power management and war) can be applied to help understand the workings of the INWO with certain modifications. Barry Buzan has noted that these five classic institutions represent a 'harmonious set' and they 'complement each other comfortably and contain no necessary contradictions' (2006: 82).²⁵ However, it is argued here that some of these classical institutions need to be understood in different ways in the context of the INWO and this is a contribution to the literature.

To some, the notion of modifying Hedley Bull's classical institutions would amount to academic heresy; however, Bull believed that the institutions were 'society specific' and, as such, if society changed, then the understanding of these institutions could change too (2002: 95, 225-247). It is also the case that the modification of some classical primary institutions strengthens the claim that the INWO is unique within international society. It is argued that three of the institutions, sovereignty, international law and diplomacy work and are understood in ways consistent with other orders of international

²³ Suganami, H., 2003. British Institutionalists, or, the English School, 20 Years On, *International Relations* (London), 17 (3) p. 253. See also Schouenborg, L., 2014. The English School and Institutions: British Institutionalists? In Navari, C., and Green, D. (eds.) 2014, *Guide the English School in International Studies*, Chapter 5, p.77. published by John Wiley & Sons.

²⁴ Michal Smetana proposes new primary institutions of the international nuclear order including: (1) non-proliferation; (2) peaceful use; (3) disarmament; (4) deterrence; (5) military non-use; and (6) universality.

²⁵ Buzan, B., 2006. Chapter 4, 'Rethinking Hedley Bull on the Institutions of International Society' in Williams, J. and Little, R. In *The Anarchical Society in a Globalized World*. London: Palgrave Macmillan.

society, such as finance, trade, communications, health or climate change. This leaves balance of power, great power management and war.

Balance of Power. Traditionally, balance of power has been understood as ‘balancing’ state capabilities or a collection of state capabilities, to ensure that no one power is ‘preponderant’ (Vattel, 1916: 40).²⁶ For Martin Wight, it was the ‘inherent tendency of international politics to produce an even distribution of power’ (2019: 173).²⁷ Nuclear weapons change this calculation. It is argued here that ‘one’ nuclear weapon is enough to change the balance of power between nations. The Russian Federation may currently have 5459 nuclear warheads (SIPRI, 2025), but few believe that if Ukraine had retained even a single nuclear weapon that Russia would have invaded its territory in 2014 and again in 2022.²⁸ The United States may possess 5800 nuclear warheads (SIPRI) but few would believe that the United States would have joined Israel in an attack on Iranian nuclear facilities on 21 June 2025 had Iran developed a nuclear capability by then.

Hedley Bull himself alludes to this when he points out that ‘whereas in a simple or two-power situation a balance requires equality or parity in military strength; a relationship of mutual deterrence does not’ (2002: 117). This points to balance of power being understood or acting differently in the realm of the INWO. That said, it does not fully explain why Russia and the United States maintain nuclear arsenals in the thousands, where ‘one’ would be enough, or why China is presently believed to be expanding its nuclear arsenal from a few hundred to a thousand by 2030.²⁹ Andrew Hurrell would answer this question by arguing that the balance of power is not a ‘mechanical arrangement’ as realists may claim, but rather a ‘conscious and continuing shared practice in which actors constantly debate and contest the meaning of balance of power’ (2002: ix).³⁰ This is a further argument for disaggregating the nuclear order to bring nuclear weapons to the fore as the defining feature of the order.

Great Power Management. The examination of the balance of power and the conclusion that the possession of a nuclear capability is sufficient to alter the calculations of states in relation to one another raises a further question. Does the possession of a nuclear capability constitute a great power in the context of the primary institution of great

²⁶ Cited in Bull, 2002: 97.

²⁷ Chapter 7, ‘Balance of Power’ in *Diplomatic Investigations* (Butterfield and Wight eds.) OUP.

²⁸ For a prescient view on this argument see: Mearsheimer, J.J., 1993. The case for a Ukrainian nuclear deterrent. *Foreign affairs*, pp.50-66.

²⁹ CSIS, 2025. ‘[Parading China’s Nuclear Arsenal out of the Shadows](#)’ by Heather Williams and Joseph Rodgers published by CSIS on 8 September 2025

³⁰ In the Foreword to the Third Edition: *The Anarchical Society 25 Years On*

power management? The answer is 'no'. Why this is so is explored further in Chapter 5. However, Nicola Leveringhaus and Andrew Hurrell argue that great powers possess "special rights and duties," along with "special responsibilities" to provide certain "managerial functions" within the order. Hedley Bull (drawing upon Herbert Butterfield) added two other criteria, first they are 'recognised by others' as having those special rights and duties and second, that their 'own leaders and people' accept those special rights and duties (Bull, 2002: 196).

In an interview with Professor Lawrence Freedman, he opined that often nuclear weapons states tended to concentrate more on 'greatness than the power' (Interview: 12 October 2023). Therefore, in the context of the INWO, whilst North Korea may have a certain parity in terms of balance of power calculations, few would attribute to them special status, rights, duties or responsibilities for the management of the INWO. Great power status in relation to great power management is therefore something which is not self-declared and but recognised by others in international society. As Tim Dunne has put it 'recognition is a necessary element of a conception of society based on legitimacy' (2001: 75).

In his book, *The United States and the Great Powers* (2004), Barry Buzan argues that what distinguishes great powers 'is not just what states say about themselves and others, but how they behave in the wider sense, and how that behaviour is treated by others' (2004: 67). As a result of the research carried out here the claim is made that the United States has a pre-eminent position in the nuclear weapons order, but it stops short of being hegemonic as Rebecca Davis Gibbons has claimed (2016), this is because it relies on the consent of the Russian Federation. But neither is it consistent with the wider global order in that China has a reduced role and Russia has an enhanced role. Also, the Nuclear Non-proliferation Treaty plays a complicating role, particularly in relation to India,³¹ as it is not a member and yet the NPT is regarded as a 'cornerstone' of the INWO.

The conclusion reached is that the United States has special responsibilities which are widely accepted in the INWO, as the nation that first developed and first used atomic weapons. This has been contested, not least by Hedley Bull, who branded the United States and the Soviet Union the 'great irresponsibles' and argued that 'great powers cannot expect to be conceded special rights if they do not perform special duties' (1980: 446). However, this was in the context of nuclear arms racing at the time and as argued

³¹ For a helpful analysis of India's troubled relationship with the NPT see: Weiss, L., 2013. India and the NPT. In *The Nuclear Non-Proliferation Treaty and India* (pp. 72-88). Routledge.

in the new model of the INWO, the United States and Russia have tended to frame their responsibilities more in relation to horizontal rather than vertical non-proliferation.

The research concludes that without the United States nothing is possible, but with the United States anything is possible. This is evidenced through virtually every major initiative from the Baruch Plan (1946), Atoms for Peace (1953) up to and including the Prague Agenda (2009). These were all initiatives of the United States. In this sense, great power management of the INWO has a unique dynamic. This dynamic is explored and revealed through the case studies of the Prague Agenda and the P-5 process. The uniqueness of the practice of great power management in the INWO is a key claim of the research.

War. Hedley Bull noted that 'war has appeared as an instrument of policy, one of the means by which the state's objectives may be achieved' (2012: 180). Yet, Bernard Brodie pointed out in relation to nuclear weapons:

Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose.³²

We have already referred to the P-5 assertion that a 'nuclear war can never be won and must never be fought' (2022). This does not mean that war has been abolished, nor that nuclear weapons states do not fight them (Heuser, 2005). Nor does it mean that the use of nuclear weapons have not been threatened: Berlin Airlift (1946); the Second Taiwan Straits crisis (1958); the Cuban Missile Crisis (1962); Yom Kippur War (1973); NATO Able Archer (1983); Kargil War (1999); Iraq (2002); North Korea (2017) and Ukraine (2022). Nor does it mean that there would no longer be conventional wars by nuclear weapons states fought for ostensibly nuclear non-proliferation purposes, such as Iraq (2003), Iran (2025). But it does mean that nuclear weapons have not been used in warfare since 9 August 1945. A fact which, as already referenced, the great nuclear strategist and game theorist Thomas Schelling referred to as the most 'spectacular event' of the post-World War II era. Hence, in the context of the INWO, the primary institution of war would be better understood as being war avoidance, and in this sense, its meaning is distinct from other orders of international society.

1.2.3: Level 3: Case studies

The final level in which the thesis aims to contribute to the field of knowledge is with respect to the chosen case studies of the Prague Agenda and the P-5 process. There is

³² Brodie, B. (ed.), *The Absolute Weapon* (New York Harcourt Brace, 1946) p. 76.

a general lack of detailed case studies from which to test the application of English School concepts to the world of nuclear weapons. This will contribute to the available literature in two ways: first, through the in-depth semi-structured interviews with a number of key actors, who in a number of cases have not been quoted publicly before, and second, in providing a solid empirical underpinning to the theoretical claims made in the thesis.

The Prague Agenda—The agenda was attributed to President Obama’s first major overseas speech on foreign policy in Prague on 5 April 2009, just a few months after he had assumed office as the 44th President of the United States of America. The Prague Agenda in the current literature is often accompanied by an epithet such as ‘an obituary’ (Smetana, 2018), ‘faltering’ (Pifer, 2015), ‘stalled’ (Joseph, 2014) or even ‘dangerous’ (Rademaker, 2016). However, a fresh look at the origins of the agenda and its intended aims result in key criticism and a reassessment.

The key criticism is that the literature has often conflated the Prague Agenda of Barack Obama with the *Wall Street Journal* (WSJ) opinion piece by George Schultz, Henry Kissinger, William Perry and Sam Nunn titled ‘Towards a World Free of Nuclear Weapons’ (4 January 2007), advocating a pathway to nuclear disarmament. Through speaking with key actors involved in the development of the Prague speech, and textual analysis of several speeches on the presidential campaign trail, it became clear that the Prague Agenda of Barack Obama primarily addressed nuclear security and non-proliferation, rather than disarmament (see Table 11). Gary Samore, President Obama’s WMD co-ordinator told me:

I think he [Obama] had a personal interest in the nuclear security, and in particular the threat of terrorist groups getting access to nuclear material or nuclear weapons. That was really the driving force behind a lot of the Prague Agenda. (Interview: 4 October 2023)

Senator Barack Obama had worked closely with Republican Senator Dick Lugar on the Senate Foreign Relations Committee on issues of nuclear security. Obama referred to his fears that nuclear materials may fall into the hands of non-state actors, especially al Qaeda. For the Obama Administration, the major successes of the Prague Agenda were the UN Security Council Resolution 1887 which focused on non-proliferation and nuclear security issues;³³ the 2010 U.S. Nuclear Posture Review which set at its first priority ‘Preventing nuclear proliferation and nuclear terrorism’; The Nuclear Security Summits

³³ The Resolution (UNSC 1887) was agreed at the 6191st meeting of the United Nations Security Council chaired by Barack Obama.

held in Washington DC (2010, 2016); Seoul (2012); and The Hague (2014) and the Joint Comprehensive Plan of Action (JCPoA) restricting Iran's development of nuclear weapons.

Viewed from what Barack Obama intended the Prague Agenda to be, rather than what others thought it was intended to be, it was a success. What is important for the argument of the thesis is that without the support of the Russian Federation, UNSC 1887, the Nuclear Security Summits and the JCPoA would not have been possible.

This is important because: First, it shows the United States and Russian Federation accepting responsibility for the INWO as great power management envisaged and recognising the first responsibility of great power management being to 'manage relations between themselves' (Bull, 2002: 200). Second, it underscores that the strongest point of agreement in the INWO is to be found in nuclear non-proliferation. Third, it demonstrates the interactions between primary institutions, in this case, great power management, international law and diplomacy, and secondary institutions and organisations, in this case, the United Nations, JCPoA, IAEA and the Nuclear Security Summits.

The P-5 process—This was a UK initiative led by (Lord) Des Browne when he was Secretary of State for Defence (2006-2008). It built on a speech by Margaret Beckett in Washington DC when Foreign Secretary (2006-2007). The proposal for a strategic dialogue was formally made at the Conference on Disarmament in Geneva on 5th February 2008. It differed from the Prague Agenda in that it was intended as a direct link to the disarmament agenda, which had been given new impetus by the *Wall Street Journal* opinion piece of January 2007. Lord Browne told me:

On January 4 2007, George Shultz, Bill Perry, Henry Kissinger, and Sam Nunn published an op-ed titled "[A World Free of Nuclear Weapons](#)". On 25th June, two days before Gordon Brown became Prime Minister, Margaret Beckett, the then Foreign Secretary delivered a speech at the Carnegie Endowment for International Peace in Washington DC also titled "*A World Free of Nuclear Weapons*". It was logical that we, as a government wanted to signal that, from a Defence perspective, we supported Margaret's Carnegie address. I, as Secretary of State for Defence, wanted to do this to show, as it were, that there was a hard-nosed kind of element to this and that the military supported it, which it did. The best place to deliver a complementary speech was somewhere that would get a lot of attention. We chose the Conference on Disarmament,³⁴ as I understood that no

³⁴ [Conference on Disarmament – UNODA](#)

Defence Minister had ever spoken there,³⁵ so I went.³⁶ (Interview: 21 November 2023)

The P-5 process has been notoriously opaque only issuing short communiques following full conference meetings. This is consistent with the objective, which was to build confidence among members in the room to foster understanding and mitigate the risks of miscalculation or misunderstanding.

What made this a strong candidate for the second case study was that it was an initiative taken at a similar time to the Prague Agenda, but from a different source, the UK. The context was different. The Labour government was going through a soul-searching discussion on the renewal of Trident. A key vote in the House of Commons on the issue took place in March 2007 and resulted in the largest Labour rebellion, with 87 MPs voting against their government despite a three-line whip. It was felt that being seen to 'do more on nuclear disarmament' may help heal some of the divisions which the Trident renewal issue had opened up.

The lead official at the Foreign & Commonwealth Office in charge of getting the P-5 process airborne was the highly experienced and respected diplomat, Dame Mariot Leslie who served as Director General, Defence and Intelligence (2007-2010). Dame Mariot was able to offer insights into the diplomatic process of trying to bring the initiative together. What was particularly interesting was the claim that the United States was initially 'one of the most difficult P-5 states to get on board' (Interview: 9 November 2023).

The reasons for this reluctance on the part of the U.S. were not expanded upon, but the timing of events suggests that there was a reluctance in Washington to support initiatives which it was not responsible for. Indeed, although the proposal was made in February 2008, it was not until September 2009 that the first meeting took place, five months after the Prague Agenda commenced. There is a question left hanging as to whether the P-5 would have ever got airborne at all if the Prague Agenda had not happened. This was important because it demonstrates the importance of U.S. leadership and its strong sense of 'ownership' of the agenda in the INWO. Though Hedley Bull would reflect that

³⁵ UK Foreign Minister James Cleverly [addressed the Conference on Disarmament](#) on the UK Integrated Review on 26 March 2021

³⁶ [A disarming proposal | Des Browne | The Guardian](#)

‘in this imperfect world, any international order must be someone’s order, and any order is better than none’³⁷ (Ayson, 2012:65).

Finally, this in-depth analysis of the formation of secondary institutions/organisations such as Nuclear Security Summits, P-5 process and JCPoA enables us to examine more closely the creation, demise and interplay between primary and secondary institutions in maintaining order in the INWO and how they change over time. In doing so, it raises questions relating to the ontological claim that primary institutions are constitutive and secondary institutions are regulative (Dunne, 2001: 78). It also enables us to examine more closely the interactions between primary and secondary institutions (Navari, 2020: 262).

For Christian Reus-Smit, ‘Fundamental institutions are those elementary rules of practice that states formulate to solve the coordination and collaboration problems associated with coexistence under anarchy’ (1997: 557). This is consistent with Barry Buzan (2023:16) who points out that, ‘Secondary institutions thus play in the embedding, reproduction, development and sometime decay of the primary institutions of global society (Spandler, 2015; Navari, 2016; Knudsen and Navari, 2019)’ Hedley Bull and Adam Watson said that secondary institutions are, ‘established by dialogue and consent common rules and institutions for the conduct of their relations, and recognise their common interest in maintaining these arrangements.’ (Bull and Watson, 1984: 1).

Yet these ‘common interests’ can shift and change over time, so do the institutions. This will be explored in more detail in the chapter on the evolution of the international nuclear order. The question of institutional change has been explored in detail by (Mayall, 1990), Holsti (2004) and Buzan (2004) and is not expanded upon here but the role of the United States is. The United States withdrew from the JCPoA in 2018. The Nuclear Security Summits ceased in 2016. The P-5 process hangs on by a thread. At the heart of each of these changes has been the United States which underscores the centrality of its role in the INWO.

The change in the secondary institutions of the INWO is also a cause of its “baffling complexity” (Walker, 2012: 25). This is because it appears to be easier to create new organisations than to reform existing ones. The NPT Review Conferences have failed to reach agreement since 2010; the Conference on Disarmament has been moribund since 1996 and the Comprehensive Test Ban Treaty has yet to enter into force. That said, other

³⁷ Hedley Bull speaking at the Council on Foreign Relations 19 December 1963—cited by Robert Ayson (2012:65)

crucial organisations created to control nuclear materials and technologies, particularly those centred on Vienna, were continuing to function: IAEA, Nuclear Suppliers Group, Zangger Committee and the International Monitoring System of the CTBTPO. Indeed, one of the fears expressed by senior diplomats and officials based in Vienna was that the 'low politics of the UN in New York and Geneva' may arrive in Vienna and disrupt their critical work on nuclear security and non-proliferation. The fact that, as yet it hasn't perhaps underlines the finding that it is 'non-proliferation' which is the strongest 'common interest' of the states forming the INWO.

1.3. Structure of the thesis

The structure of the thesis proceeds as follows: Following this Introduction covering the motivation and contribution of the research, Chapter 2 undertakes a review of the current Literature. In this chapter, we will explore in detail the current literature on the international nuclear order with a focus on how the international nuclear weapons order (INWO) is distinguishable from the international nuclear order (INO). This then leads into Chapter 3, which sets out the English School Theoretical Framework and its central claims about the nature of order, international society and primary and secondary institutions and why this framework was chosen above other possible alternatives. Chapter 4 is the Method Statement, where we will set out the research questions and the proposed methods for answering them. This chapter will explain the reasons for the choice of the specific case studies, examining their strengths but also their limitations. Chapter 5 places the theory in a historical context.

Historical interpretivism is a key method of the English School, and linking the evolution of the order to the events and initiatives which created it can help strengthen the bases for the claims in the research. Chapter 6 takes one of the primary institutions, great power management and seeks to apply it to the historic interpretation of the international nuclear weapons order made in Chapter 5. In this chapter, we also examine great power practice in the INWO more closely.

Chapter 6 is the first of the case studies looking at the development of the Prague Agenda, what it was and what it was not. The central claim is that the Prague Agenda was misunderstood as a disarmament agenda, whereas in fact it was a nuclear security and non-proliferation agenda. Chapter 7, undertakes a similar examination of the development of the P-5 process, which was contemporaneous with the development of the Prague Agenda but differed in two respects: first, it was UK-led rather than United States-led, and second, it reflected a strong disarmament and risk management agenda

rather than a nuclear security and non-proliferation agenda. Finally, in the conclusion of Chapter 8, the various strands of the thesis are drawn together to arrive at some conclusions, policy recommendations, and further questions for the research of this often-neglected field of study within the English School.

Chapter 2: Literature Review

2.1. The Nuclear Weapons Order

The 'orthodox' benchmark dates in international relations are: 1500, 1648, 1919, 1945, and 1989 (Buzan and Lawson, 2012:437). However, 1945 is a benchmark date not only due to the formation of the UN and the post-World War II order but also of the international nuclear weapons order (INWO). At 8:15 AM on 6 August 1945, the U.S.A.F B-29 bomber, *The Enola Gay*, dropped the atomic bomb called 'Little Boy' over the city of Hiroshima. Without warning, a moment in history was created, ushering in a new world. It presented the world with 'an immense international ordering problem' (Walker, 2000: 703). At that time, the 'order' only had one member, the United States of America, which had developed the atomic weapon as a result of the Manhattan Project (1942-46).

The devastating effect of this weapon of mass destruction, which Bernard Brodie called the 'absolute weapon' (1946), sent shockwaves through the international order. It is possible to see from a historical perspective how the traditional primary institutions of international society were thrown into disarray by the revelation of the atomic bomb. For example, in the case of balance of power, only the U.S. possessed the capability and in respect of international law, this technology was not regulated in the same way as other 'weapons of mass destruction' such as chemical and biological weapons through the Geneva Protocol (1925), despite being capable of vastly greater 'mass destruction'.¹

The immediate aftermath of the birth of the nuclear age influenced the shape of the emerging post-WW2 order's institutional framework, recognising the dual-use nature of the technology. First, the United States, anxious to avoid nuclear weapons technology falling into the hands of the Soviet Union, passed the Atomic Energy Act (The McMahon Act) (1946) which banned the sharing of atomic knowhow with foreign countries, including the UK which had been a partner in The Manhattan Project (Jones, 2017:2). Correspondingly, the United Nations General Assembly met for its First Meeting in

¹ The term 'Weapons of Mass Destruction' (WMD) was first used by the Archbishop of Canterbury (Lang) to describe the use of aerial bombardment of Guernica (1937) during the Spanish Civil War, however, for this research we take WMD to have a special status relating to chemical, biological and nuclear weapons which was designated in the first resolution of the UN General Assembly in London on 24 January 1946. It is also a term which will be debated later for its contentious use being selecting used to describe nuclear weapons in the hands on an enemy, whereas nuclear weapons states will refer to their possession, not as WMD, but as a 'nuclear deterrent'.

London in January 1946. It passed a unanimous resolution calling for the elimination of atomic weapons from national armaments (Article 5(c)).²

2.2. Nuclear Weapons States in the INWO

At this point, it would be worth reflecting on why it is that states seek to acquire nuclear weapons, or in the case of Belarus, Kazakhstan, South Africa, Libya and Ukraine, give up nuclear weapons. It is difficult to think of other capabilities which may impact a state's perception of itself and by others as much as nuclear weapons. Yet, others point out that this 'use' is an illusory one 'Nothing lends itself more to the illusion than our perceptions of nuclear weapons. This is so because of the quality of fear they inspire, their special mystery, their relationship to the infinite, and our sense of profound helplessness before them' (Lifton and Falk, 1982: 13). Dean Acheson, Former U.S. Secretary of State during the pivotal period for the nuclear order of 1949-1953, reflected:

Unhappily, we [the United States] had sold the rest of the world two ideas: One was that nuclear weapons were a status symbol. The great powers had them; if you didn't have them, you were a second-rate power. Secondly, if you had them, you could do anything. These were magical weapons..., you could, by nuclear weapons, threaten people, and then they would stop doing these unattractive things which they planned to do. (1963: 13)

Confirmation of this comes in statements made by British political leaders in pursuing thermonuclear weapons: Sir Winston Churchill said, "It's the price we pay to sit at the top table."³ Harold Macmillan said that the nuclear bomb "put us where we ought to be, in the position of a Great Power. The fact that we have it makes the United States pay a greater regard to our point of view, and that is of great importance."⁴ William Walker noted 'the atomic bomb was attributed an exceptional power of persuasion, a power that nation-states might justifiably use for political and military purposes' (2000: 705).

Paul Bracken observes that 'Britain, politically speaking, would hardly like to have France as the only nuclear power in Europe, likewise France. Nuclear weapons thus give Britain and France more than they deserve in the UN, Europe and in the world' (2012: 238). Professor Sir Lawrence Freedman opined that when it came to nuclear weapons, great powers appeared more concerned with the "greatness than the power" (Interview, 12 October 2023). That said, even if the UK and France were motivated in part by great

² UN General Assembly Resolution [A/RES/1 \(1\)](#)—24 January, 1946

³ Maguire, R. (2012) '[Never a credible weapon: nuclear cultures in British government during the era of the H-bomb](#)' published in *The British Journal for the History of Science* Vol. 45, No 4 (page 522)

⁴ Pierre, A.G. (1972) '[Nuclear Politics: The British Experience with an Independent Strategic Force, 1939-1970](#)' published October, 1972 in *International Affairs* vol 48, issue 4, pages 673, p178 and cited in Freedman and Michaels, 2019 page 341.

power 'prestige' calculations, others such as the U.S., Russia, China, Israel, Pakistan and North Korea were motivated primarily by security concerns (Kutchesfahani, 2019: 106).

This is not to conflate prestige with some kind of diplomatic vanity; it can have intrinsic value. 'Prestige' said E.H. Carr, means the 'recognition by other people of your strength. Prestige (which some people scoff at) is enormously important; for if your strength can be recognised, you can achieve your aims without having to use it' (Carr, 1937: 10). Martin Wight said, 'prestige is the halo around power....because prestige is not only something that other people recognise, but also something you assert, wisely or unwisely, necessarily or unnecessarily' (1979: 97-98).

Mark Bell has argued that the possession of nuclear weapons can embolden foreign policy choices with a greater propensity for: aggression, expansion, independence, bolstering and steadfastness (Bell, 2015: 87). Yet, in 1946 the Chinese communist leader Mao Zedong explained his party's stance on nuclear weapons to the American journalist Anne Louise Strong: "The atom bomb is a paper tiger with which the American reactionaries try to terrify the people. It looks terrible, but in fact is not. Of course, the atom bomb is a weapon of mass annihilation: the outcome of a war is decided by the people, not by one or two new weapons" (Hudson, 2019: 389). Well, that might have been the view in 1946, but by 1958, China was developing its nuclear programme with Soviet assistance and conducted its first nuclear weapons test in 1964, but did not join the NPT until 1994. This tension between the power of possession, the threat of use and the grave responsibilities this implies has been central to the international nuclear order. How states have formed institutions and practices that contain and manage these tensions is a major theme of this thesis.

2. 3. Is 'One' enough?

This then leads to another area in which the nuclear order is unique, and that is the quantity of nuclear weapons required to achieve a credible deterrent. In conventional warfare, relative strength is listed in capabilities: numbers of battleships, fighter jets, tanks, soldiers, etc. Yet, in the nuclear realm, one may be enough, or is it?

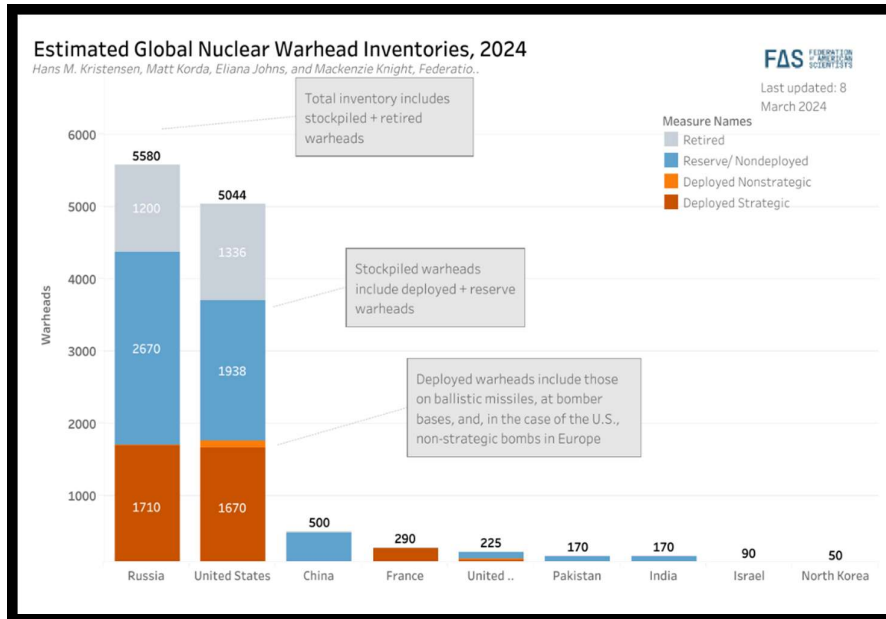


Illustration 2. Estimated Nuclear Warhead Inventories (FAS, 2024)

A study for *Science* estimated that 100 Hiroshima size bombs could plunge the Earth into a nuclear winter, like the last Ice Age and result in the deaths of up to 5 billion people (Toon *et al.*, 2019). However, the average yield of an ICBM nuclear warhead is 300kt meaning 100 nuclear weapons with current average explosive yields would be the equivalent to 30,000kt, 200 times the 1500kt required to destroy the planet.

Based on such incredible destructive capacity, how is the minimum necessary deterrent calculated? Jeffrey Lewis has stated, 'An enemy who *can* be deterred, *will* be deterred by the prospect of a counterattack even if it consists of only a few nuclear weapons' (Lewis, 2008: 38). George Kennan has called 'levels of such grotesque dimensions as to defy rational understanding' (1981).⁵ This may point to different reasons: Former British cabinet minister Denis Healey once quipped that only '5% of the then British nuclear arsenal of 500 warheads were required to deter Moscow, and the other 95% were to reassure the British public.'⁶ In other words, 25 nuclear warheads would suffice as a deterrent, yet today the UK has 225 warheads.

The question of the minimum nuclear deterrent was considered by a group of nuclear specialists at *The Bulletin of Atomic Scientists* who put the figure for the required warheads at a minimum of 100. If nuclear scientists who developed the atomic bomb

⁵ 'A modest proposal' by George Kennan published in the New York Review of Books 16 July 1981

⁶ Published in the [NATO Review](#) 21 April, 2015

believe 100 warheads are adequate, then where is the scientific evidence for 250 to 6,000+ being the required minimum?

The stockpiles of seven of the nine NWS are already greater than would be required to destroy the planet and cost the lives of up to 5 billion people, what is the justification for stockpiles above this level? The answer would appear to owe more to the international politics of status and the domestic politics of reassurance than on any objective science of deterrence or utility.

The vast arsenals lack utility in rational military terms unless your intent is to destroy not only your enemy but yourself too, but they are nonetheless seen as desirable by two groups of states: great powers for whom they are a currency of status and small states with an acute sense of vulnerability for whom they are seen as a currency of survival. This raises a further question which is if this is so then why have not more of the advanced nuclear states—defined as the 44 nuclear states in Appendix II⁷ of the CTBT, acquired nuclear weapons? The answer may be that nine states are NWS; fifteen are part of NATO; three are covered by U.S. nuclear guarantees and 27 of the 44 are covered by a nuclear umbrella. Amongst the 17 others all (including Iran and Ukraine) are signatories to the NPT under which they are bound not to acquire or seek to acquire a nuclear capability. Moreover, most are part of Nuclear Free Zone treaties, especially Latin America, Africa and Southeast Asia. Once again, this unusual configuration and arrangement point to the uniqueness of the INWO in the global order.

2.4. Order in international society

The purpose of these sections is to introduce key ES concepts that will be covered later in the thesis, explaining how they shape the international nuclear order. 'A study of order in world politics must begin with the question: what is it?': This is the opening line of *The Anarchical Society: A Study of Order in World Politics* (Bull, 1977/2012:3). 'Order' wrote C.A.W. Manning, 'has been the chief preoccupation of the English school' (1975: 10). In Hedley Bull's first published article in 1959, he wrote:

For though sovereign states are without a common government, they are not in a condition of anarchy....they are a society without a government. This society is an imperfect one: its justice is crude and uncertain, as each state is judge in its own cause; and it gives rise to recurrent tragedy in the form of war; but it produces

⁷ CTBT Annex 2 lists the following 44 States: Algeria, Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Democratic People's Republic of Korea, Democratic Republic of the Congo, Egypt, Finland, France, Germany, Hungary, India, Indonesia, Islamic Republic of Iran, Israel, Italy, Japan, Mexico, Netherlands, Norway, Pakistan, Peru, Poland, Republic of Korea, Romania, Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, United States of America, and Vietnam.

order, regularity, predictability and long periods of peace, without involving the tyranny of a universal state.. (Miller and Vincent, 1990: 102)

By order, we therefore mean 'a pattern [of behaviour] that leads to a particular result, an arrangement of social life that promotes specific goals and values' (Bull, 1977: 3-4). The goal of the international order was generally framed as one of coexistence and the idea that multiple sovereign states may 'live together relatively well on one planet' (Aaron, 1966: 456). It was, according to Andrew Hurrell, the answer to the question, 'how might states and other groups do each other the least harm, and in an age of total war and nuclear weapons, survive as a species?' (Hurrell, 2003: 26). This research assumes that the international nuclear order attempts to address Hurrell's question.

The ES model of international society is built upon the reciprocal recognition of sovereign nation-states as members of the international society and the principle of non-intervention. Bull and Watson define international society as:

a group of states (or, more generally, a group of independent political communities) which not merely form a system, in the sense that the behaviour of each is a necessary factor in the calculations of others, but also have established by dialogue and consent common rules and institutions for the conduct of relations and recognize their common interest in maintaining these arrangements (1984:1).

This description is relevant as the nuclear order is an interstate order. States are free to join the Nuclear Non-Proliferation Treaty (NPT) or not to join the NPT and to proceed to develop nuclear weapons, as India, Pakistan, and Israel have done. Under certain conditions (Article X), it is even possible to withdraw from the NPT and then 'legitimately' pursue the acquisition of nuclear weapons, as North Korea did in 2003. However, the legality of this withdrawal is disputed (Winters, 2005: 1499).

2.4.1. Foundational text—Hedley Bull, The Anarchical Society: A study of order in World Politics (1977/2002).

The international nuclear weapons order is one of the capabilities, organisations and administrative machinery that are 'shaped toward the realisation of common goals' (Bull, 1977: 71), primarily nuclear non-proliferation. In this section, we will look in more detail at those shared norms and rules and seek to justify the selection of certain primary institutions for more detailed analysis:

To begin this section, I will make the case for selecting the ES scholar Hedley Bull and *The Anarchical Society* (1977) (TAS) as a foundational text of this study. Chris Brown described TAS as representing both 'a summary of thinking of the British Committee and

the starting point for development of the English School' (2011: 317); for Schouenbourg and Taeuber (2020:224), it was the 'conceptual centrepiece' of the ES. For Michael Mandelbaum, 'Bull has written the rarest of books: It is not the last but the first word on the subject' (1977:575). However, there was one firm critic who said, 'the merest thought of it [TAS] plunges me into gloom, it is such a rotten book'—that critic was Hedley Bull himself (Ayson, 2012: 152). The author aside, its significance to this study is in that it not only frames the debate for English school theory, but it also includes how ES theory can be applied to the understanding of the international nuclear order (Bull, 1977: 116-121) and the role of great powers in the nuclear order (Bull, 1977: 195-197). There are three further reasons for the selection:

First, Hedley Bull has written more extensively on nuclear weapons and disarmament than any other ES writer (see *inter alia*: Bull, 1961; Bull, 1962; Bull, 1975; Bull, 1980 (a); Bull, 1980 (b); and in Bull and Watson eds. (1984) and Alderson and Hurrell eds. (2000)). In fairness the quantitative threshold for literature exploring the ES and the international nuclear order is not a particularly high one: Buzan has noted, 'The terms 'English School' and 'international security' seldom appear in the same sentence' (2015:1). Writing on primary institutions and the international nuclear order involving even tangential references to the English School is limited, examples *inter alia* include: Hudson and Butterfield in (1966/2019); Wight (1979); Miller and Vincent (1990); Wight (1978); Buzan, (1996, 2015); Holsti, (1996); Little (2007); (Tannenwald, 2007); Booth (2007); Booth and Wheeler (2008); Ruzicka and Wheeler (2010); Walker (2012). However, in recent years, there have been an increased number of contributions taking a closer look at primary institutions and the nuclear order by Ruzicka (2017), Smetana (2019), Leveringhaus and Hurrell (2020) and Floyd (2021). It is to this later research that this work primarily seeks to add.

Second, unlike many scholars who came to engage with the ES through history, political or IR theory, Bull engaged from the outset with the issue of arms control from a perspective of strategic studies⁸ (Miller and Vincent, 1990:95). In Bull's first full-length book, *The Control of the Arms Race* (1961) he demonstrated his realist/rationalist approach regarding nuclear weapons, 'in a world in which nuclear weapons, deeply though we fear them, have more or less a permanent place, are there measures of arms control that can reduce the dangers of living with them' (1961:111). Though we can see a shift in this view especially about nuclear deterrence in later works (Bull,1980:16).

⁸ Bull defined strategic studies as '*the study of military force and its place in human affairs*' (Bull, 1964) unpublished, cited by T.B. Millar in Miller and Vincent (1990:95)

Stanley Hoffman in reflecting on Bull's contribution to the field of IR, said, 'He provided us with the first comprehensive defence and illustration of arms control in an age dominated by the nuclear threat' (Hoffman, 1986:195). In 1965, Bull was invited to take up a new position in the British Foreign & Commonwealth Office as the first Director of the Arms Control and Disarmament Unit at the height of the Cold War between the Cuban Missile Crisis (1962) and the signing of the NPT (1968). Perhaps as a result, TAS (1977) is infused with this practitioner's pragmatism (and scepticism) towards the possession of nuclear weapons and the rejection of more theoretical idealism surrounding calls for disarmament. Bull implies that the prime value of the international nuclear order is 'order'. In his 1983 Hagey lectures, he concluded, 'in the matter of the distribution of nuclear weapons, questions of justice are less important than questions of order' (Alderson and Hurrell, 2000: 219)

Third, it was Bull's definition of order which influenced another important text of the research, *A Perpetual Menace: nuclear weapons and the International Order*, by William Walker. Walker used Bull's definition as a base for constructing his definition of the international nuclear order:

Given the existence of nuclear technology, the international nuclear order entails evolving patterns of thought and activity that serve the primary goals of world survival, war avoidance and economic development, and the quest for tolerable accommodation of pronounced differences in the capabilities, practices and rights and obligations of states. (2012:12).

2.5. The English School

If connecting the English School to the realm of International Security Studies is unusual, then using the English School (ES) as a theoretical lens to examine the international nuclear weapons order is rare. More typical approaches would involve using structural realism (Waltz, 2000) or neo-liberal institutionalism (Keohane, 2011). The first question to address is, therefore....

2.5.1. Why the English School?

The central claim of the ES⁹ is that sovereign states form an international society, albeit an anarchic one (Linklater, 2005:84). The ES was comprised of an initial group of writers

⁹ The term ES was used by Roy Jones (1981:2) in an article entitled '*The English school for international relations: a case for closure*' in which he argued that the English school relied too heavily on historicism.

and thinkers formed in the 1950s around the international relations department of the LSE and The British Committee of whom the most influential in the early stages were Herbert Butterfield, Martin Wight, Hedley Bull, John Vincent and Adam Watson. More recently, the ES has been reinvigorated and expanded for the globalised age, giving a stronger voice for justice as an objective/value of order by Barry Buzan, Richard Little, Tim Dunne, Nicholas Wheeler, Andrew Hurrell and John Williams, amongst others. Robert Jackson described the ES approach as:

a variety of theoretical inquiries which conceive of international relations as a world not merely of power or prudence or wealth or capability or domination but also one of recognition, association, membership, equality, equity, legitimate interests, rights reciprocity, customs and conventions, agreements and disagreements, disputes, offenses, injuries, damages, reparations, and the rest: the normative vocabulary of human conduct (1992: 271)

2.5.2. The Three Traditions

Perhaps the most famous concept illustrating the ES's approach to international relations is the three traditions, taken from Martin Wight's lectures and published posthumously as *International Theory: The Three Traditions* (1991); the tripartite division of IR was developed by Richard Little (1995:15-16) and Barry Buzan (2001:475).

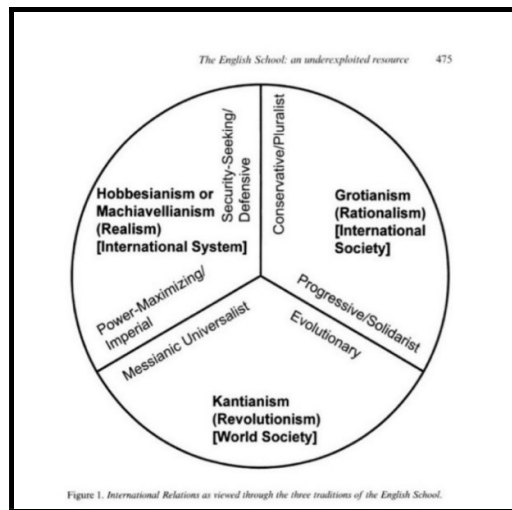


Illustration 3: The Three Traditions by Martin Wight is based on *International Theory: The Three Traditions* (1991), illustration by Barry Buzan (2001)¹⁰

¹⁰ Illustration of the Three Traditions in Buzan, B., 2001. The English School: an underexploited resource in *IR. Review of international studies*, 27(3), p.475. The illustration of the Three Traditions is developed further in Buzan, B., 2004. *From international to world society?: English school theory and the social structure of globalisation* (Vol. 95). Cambridge University Press, pp. 98, 109 and 133.

Before this concept there had essentially been a debate between *realists*, who claimed the international system of states was competitive—win/lose, and nation states were in pursuit of relative gains in the system—the world of Hobbes' *Leviathan* (1651) and *revolutionism* which envisages a co-operative world—win/win in which nation states worked together to generate absolute gains in the system--the world of Kant's *Perpetual Peace* (1795). Into this dichotomy of realism and revolutionism, the ES inserts the *via media* of rationalism into the world of Grotius's *The Law of War and Peace* (1625). N.J. Rengger, however, claimed the ES approach was a 'middle of the road' approach, and this was 'just too dangerous a place to be. Sooner or later, you must move to one side or the other' (2000: 92).

Under *rationalism*, sovereign nation-states simultaneously cooperate in specific domains of international society and compete in others. However, the model, according to Wight, and the early ES, is also predicated on a particular belief in human nature with realists taking a 'pessimistic' view of human nature, revolutionists tend to be 'optimistic', whilst rationalists are 'neither pessimistic nor optimistic but place the 'paradox which lies in our experience of human nature in the centre of their theory of it' (Wight, 1991:25-28). It is the world of owls as well as hawks and doves (Allison, Carnesale and Nye, 1985). The model is not without its critics, most notably João Almeida, who claimed Wight's purpose was to differentiate the ES from realism to which it had been deemed too closely aligned (Almeida, 2003:278). It is probably fair, especially in considering order in the context of nuclear order, that if the early ES scholars had to choose a 'side of the road', then it would probably be realism. However, the premise of this thesis is that this dichotomy is not applicable and that international order does not need to be viewed in strictly black and white terms. It can be seen as a spectrum of colours, which enables us to observe deeper nuances with greater clarity and understanding.

2.5.3. *The interplay of rationalism, realism and revolutionism*

This criticism of Almeida is not accepted for this analysis as we are choosing to take the intention of Wight that 'Rationalism is the theory that reason is a source of knowledge in itself' (Wight, 1994:13). It therefore does not aspire to be treated as a distinct theory of IR but rather to be a methodological approach providing a social explanation for certain phenomena (Fearon and Wendt, 2002). The term *via media*, or a 'middle-way' between realism and revolutionism, can sometimes lead to the mistaken belief that it is a bounded theory. However, its utility to the study of the international nuclear order is precisely in the fact that it is a method of enquiry, not a theory of explanation (Reus Smit, 2002: 499).

Another benefit of adopting the rationalism *tradition* in the ES context is because Wight presents the three traditions as ‘interrelated political conditions’ reflecting anarchy/realism; diplomacy and commerce/rationalism and the concept of a society of states, or family of nations/revolutionism (1991:7). The term *tradition* as used by Wight was taken to be ‘driven by the inter-play between the theory and practice in the system’ (Dunne, 2003: 306). This fits with John Williams’ claim that the ES has accepted ‘the continuous inter-play between elements of realism, rationalism and revolutionism’ (2005:21) and is the chosen approach for this analysis.

2.5.4. Pragmatic historicism

From the roots of the three traditions, we see revealed another important element present in the ES tradition: the importance of history and events in understanding the evolution of international society. As Adam Roberts put it, ‘The experience of the past is only one guide to the options for the future, but I believe it to be an indispensable one. Whatever our system of communities may develop, it will remain substantially the heir to its own past’ (1992: 325).¹¹ This is true for the three traditions as each is rooted in a precise historical context: Hobbes and the English Civil War (1642-51); Kant and the response to the French Revolution (1794) and his revulsion at the Reign of Terror which followed it, and Grotius responding to the Thirty Years War (1618-1648). It should be acknowledged that this is a narrow time frame, and contemporary ES scholars (Buzan and Little, 2009: 207) have sought to place the three traditions in a wider context. Martin Wight summed up his approach of the ES in the equation: Politics: International Politics=Political Theory: Historical Interpretation (Wight, 2019 (a): 53). Thus, the international nuclear order is a response to the very particular events of the unleashing of the atomic age and the response of international society to control and constrain its power—it is an order which is ‘historically constructed’ (Alderson and Hurrell, 2000:27). However, it is not a claim that the ushering in of the atomic age changed in some way the reality of international relations, it may change the calculations, but not the underlying reality of the conduct of those relations because they are largely unchanging.

This is why Martin Wight was explaining the answer to the title of the chapter, ‘Why is there no International Theory?’ when he wrote of ‘international politics is the realm of repetition and recurrence’ (Butterfield and Wight, 2019: 46). Examples of where Wight’s realm of ‘repetition and recurrence’ arise are sovereignty, responsibility, legitimacy and membership. These terms incorporate other terms such as reciprocity, recognition, rights,

¹¹ See also, Buzan, B. and Little, R., 2000. International systems in world history: remaking the study of international relations. Oxford: Oxford University Press. especially Chapter 17.

duties, and restraint (Loke, 2016: 852; Clark, 2009: 220; Bukovansky et al., 2012: 45; Tannenwald, 2020: 206).

The analytical value of these terms for this research lies in their fundamental role in conceptualising the *raison de systeme* of the international nuclear weapons order (INWO) and the operation of great power management. For example, Adam Watson refers to legitimacy as the 'oil that lubricated the operative machinery of a society' (2007: 54). These terms are therefore influential in analysing the smooth functioning of institutions. Where there is respect for sovereignty, legitimate great powers taking responsibility and exercising restraint and there are membership benefits resulting from the *raison de systeme*, then the institutions above them will function well. However, correspondingly, where they are dysfunctional, then they act as a brake on the workings of institutions. This interaction of institutions and norms in the nuclear weapons order is underexplored in the existing literature. As such, a brief introduction to those concepts is helpful here, but they will be developed later in the thesis.

2.5.5. Sovereignty

Sovereignty is an essential pre-cursor to the existence of international society. As Hedley Bull put it, sovereignty is an 'attribute of all states' and the recognition of sovereignty a 'basic rule of coexistence within the states system' (2002: 35). There is a substantial body of literature on sovereignty which will be discussed in the context of the political interactions within the nuclear order, but for the purpose of this research sovereignty is taken to mean, 'Sovereign states are territorial units of juridical independence; they are not formally subject to some external authority' (Krasner, 2001: 230). Barry Buzan has described sovereignty and non-intervention as the 'great prizes of decolonisation' which continue to enjoy strong support, especially in the Global South (Buzan, 2023: 358). Therefore, decisions on compliance or non-compliance are for nation-states, and the nuclear order reinforces the concept of an international society of sovereign nation-states and the principle of non-intervention. This does not mean that states, especially great powers, are passive; they are also persuasive, e.g. the use of sanctions and exclusions for non-compliance (Wilson and Yao, 2019). This is to add concepts of power and authority in addition to geographical, political, and legal independence, where 'Authority commands, power executes' (Jackson, 2007: 14).

But there are further questions as to what sovereignty means in nuclear context: Stephen Cimbala was suggested the idea of a 'special aura of sovereignty conferred by nuclear weapons' (1993: 190), others point to the humanitarian consequences of the use of

nuclear weapons being a violation of public international law governing sovereignty, protection of civilians and neutrality (Falk, 1983; Friedrichs, 1985; Kauzlaurich, Kramer and Smith, 1992 and Borrie, 2014). These arguments were tested before the International Court of Justice (ICJ) in its advisory opinion on, *The Legality of the Threat or Use of Nuclear Weapons* (1996) in which it concluded that the use of threat of nuclear weapons would be ‘generally contrary to the rules of international law applicable in armed conflict, and, in particular, the principles of humanitarian law’ (ICJ 1996, para. 105 [2] E) *emphasis added*. This then follows a theme that norms and institutions need to be understood differently in the context of the INWO.

2.5.6. Responsibility

In his classic article *The Great Irresponsibles?*, Bull set out that ‘The concept of a great power has always had normative as well as positive connotations’ (Bull, 1980: 437). ‘To speak of great powers, is already to presuppose the existence of international society in which these states are “great responsables”’ (Bull, 1971: 143). Beverley Loke asserts that ‘Great power heralds great responsibility. By virtue of their status and entitlements in international society, great powers have special responsibilities to provide leadership and maintain international order’ adding ‘great power responsibility is a normative expectation of state conduct.’ (2016: 848, 852). R.J. Vincent states, ‘Great powers were burdened by responsibility as much as benefited by power, and theirs was a role that had to be played’ (1990: 62–63).

William Walker has written of ‘responsible nuclear sovereignty’ (2010: 447) in which the ‘supreme responsibility’ is the elimination of nuclear weapons (2010: 464). Nick Ritchie said the ‘theme of responsibility, pervades British nuclear weapons discourse’ (2013: 213). These discussions, whilst insightful and helpful, do not address the core argument of this research: namely that certain great powers are ‘responsible’ for the maintenance of ‘order’. That ‘order’, the international nuclear weapons order (INWO), is built on the common goal of nuclear non-proliferation. Hence, the ‘responsibility’ being explored here is less the individual sovereign responsibility of nuclear powers and more an ‘order’ maintaining system between states in which is embodied in ‘institutions, norms and practices’ (Egeland, 2021: 213). Moreover, this responsibility falls particularly on the shoulders of the United States, in partnership with the Russian Federation and as such leans more to ‘hegemonic’ ordering (Leveringhaus and Hurrell, 2020: 233).

What these descriptions of responsibility do have in common, however, is that they are special responsibilities which apply to those whose great power status is recognised by

other states in the system. As a result, they have been granted certain privileges or roles. An obvious example would be the granting of a Permanent seat on the United Nations Security Council. In the context of the international nuclear weapons order, it would be recognised as a 'legitimate' nuclear weapons state under the Nuclear Non-proliferation Treaty (Article IX, (3)). Another example could be the special responsibilities of Depository States¹² of the NPT, the Russian Federation, the United Kingdom and the United States. It follows that if 'special privileges' are extended to great powers by states in return for accepting 'special responsibilities,' then if they fail in their responsibilities, they should cease to benefit from the privileges.

This is problematic in practice as international society lacks the mechanisms to withdraw privileges if responsibilities are not fulfilled. Technically, under Article 4 of the Vienna Convention on the Law of Treaties, the NPT could be changed, but this would require the consent of all 191 parties to the current NPT. Again, it is possible to expel a member of the United Nations under Article 6 of the Charter; however, this would require a substantive resolution of the UNSC, which is unlikely to be forthcoming as the 'great powers' hold a veto (Article 23 (I)). Hence, the system is in stalemate if great powers do not exercise their responsibilities, and the only sanction is likely to be in bilateral relations and legitimacy.

This has not always been the case. The League of Nations expelled the Soviet Union in 1939 following their invasion of Finland. Germany and Japan withdrew (1933) after their actions in Manchuria were condemned by the League, and Italy withdrew after being sanctioned following its invasion of Ethiopia (1937). Of course, the principal reason for the failure of the League was the absence of the pre-eminent power, the United States. It was U.S. president had proposed the institution in the Treaty of Versailles (1919), but the Senate refused to ratify. The failure of the League of Nations in preventing World War II weighed heavily on the minds of the architects of the United Nations. Alfred Zimmern, in his seminal work, *The League of Nations and The Rule of Law, 1918-1935* lamented:

[T]he problem of international politics is not the elimination of the conception of Power, but its transformation — we may even say its sublimation — through the influence of the notion of moral responsibility. ... If such a development should

¹² The term 'depository state' is a government or organisation to which a multilateral treaty such as the NPT is entrusted. The duties of the depository state are set out in Article 77 in the Vienna Convention on the Law of Treaties (1969). Amongst those duties the depositories are responsible for maintaining copies of the original documents; providing certified copies of the same; validating the credentials of signatories; registering the treaty with the Secretariat of the United Nations and keeping all signatories informed of the status vis-à-vis the acceptance, ratification and accession to the treaty by states and in cases of dispute liaising between member states and competent international organisations.

reach its completion, some states would still be found stronger than others — for equality is not of this world — but there would no longer be *Great Powers*. There would only be *Great Responsibilities*. (1939: 83–84)

This is important for the research as Nick Wheeler told me:

The key concept that you seem to be getting at is the great power management/responsibility precedes international nuclear order and order is only possible with it. So, can the international nuclear order survive a collapse of great power responsibility? (Interview: 15 August, 2023)

This is also important as it demonstrates that international society does reason and is rational, exercising feedback loops¹³ from history to seek to make new institutions stronger than their predecessors. The architects of the United Nations Charter succeeded in binding great powers to the institution but at the expense of feasible mechanisms to hold great powers to account. This led Gerry Simpson to argue that the United Nations Charter was itself a ‘compromise’ between the ‘special responsibility of the Great Powers....and the juridical commitment to equality’ (2004: 167). Hedley Bull further highlighted this tension in *The Great Irresponsibles* where he states ‘The idea of the special rights and duties of great powers, moreover, embodies a principle of hierarchy that is at loggerheads with the principle of the equal sovereignty of states’ (1980: 438). This tension is one of the continuing themes of the INWO and is resolved by leaning in the direction of hierarchy.

Of course, the great powers may see it differently: in the text of the Basic Principles of Relations Between the United States of America and the Union of Soviet Socialist Republics, they state:

The USA and the USSR make no claim for themselves and would not recognize the claims of anyone else to any special rights or advantages in world affairs. They recognize the sovereign equality of all states (May, 1972).¹⁴

An argument which is consequently not explored, but should be, is whether the ‘rights’ which great powers secure in the system are not too great, but too small for the onerous duties of maintaining order they are expected to take. It could be argued that what is

¹³ Bousquet, A. and Curtis, S., 2011. Beyond models and metaphors: complexity theory, systems thinking and international relations. *Cambridge review of international affairs*, 24(01), pp.43-62.

¹⁴ UCSB, The American Presidency Project: [Basic Principles of Relations Between the United States of America and the Union of Soviet Socialist Republics](#).

lacking is that great powers are insufficiently incentivised to take on the responsibilities which international society, or in this case, the INWO, require.

2.5.7. Legitimacy

Legitimacy formations, according to Ian Clark, are ‘the essential history of international society’ (2005:245). Legitimacy thus denotes the existence of international society and is defined in terms of ‘rightful membership and rightful conduct’ (Clark, 2005: 173). The ES would claim that ‘legitimacy’ is a ‘moral’ standard and conditional on recognising the states that comprise international society. Mutual recognition is at the heart of legitimacy in the international system (Wight, 1977: 135). As Bull put it in his 1983 Hagey Lectures, ‘The rights of sovereign peoples and nations, derive from the rules of the international community or society and are limited by them’ (Alderson and Hurrell, eds. 2000:19). Specifically in relation to the nuclear order, William Walker argued that:

profound questions of legitimacy needed to be addressed before a nuclear order could be instituted? Why should certain states, and only those states have the right to defend themselves with nuclear weapons and to inflict final destruction?.....How could their possession be squared with the egalitarian principles of the United Nations? (2000: 706).

Specific rights (and duties) are codified in the United Nations Charter: the right to territorial integrity (Article 2(4)) and the right to self-defence (Article 51) and these are in turn derived from the preceding Article 2 (1) which reads: ‘The Organization [the UN] is based on the principle of the sovereign equality of all its members’¹⁵ (Simpson, 2004:29). Still, Adom Getachew has noted, ‘Together the normative erosion of self-determination and marginalisation of the UN set the stage for the resurgence of international hierarchy and a newly unrestrained American imperialism.’ (2019: 13). The United Nations Security Council (UNSC), like its predecessor, the League of Nations Council, and in the NPT, operates on the presumption that some states are more equal than others. However, earlier Bull made the case more normatively when he wrote, ‘great powers do, however, have a permanent problem of securing and preserving the consent of other states to the special role they play in the system’ and that ‘these functions are accepted by a large enough proportion of the society of states to command legitimacy’ (2002: 221). It should then follow that an indicator as to whether that ‘consent’ exists would be what Amitav Acharya has called the ‘willing participation of the “ruled” or less powerful actors’ (2018: 51).

¹⁵ [UN Charter](#)

There are alternative explanations for great power imbalances in the INWO: Shane Maddock has described the asymmetric nuclear order as representing a 'nuclear apartheid' which mirrored global racial divisions and that 'decolonisation laid the groundwork for nuclear apartheid' (2010: x).¹⁶ For Zachary Davis the non-proliferation regime is a 'realist system which seeks the maintenance of existing power structures, especially under U.S. leadership' (1993: 87). According to Timothy Mitchell the power to create order is a version of colonizing power in and of itself (1991: 14). Shampa Biswas went further to argue that:

In one bold move, the nuclear-apartheid argument announces the place of nuclear weaponry as the arbiter of global power and status, and how its inaccessibility or unavailability to a racialized Third World relegates it forever to the dustheap of history (Biswas, 2001: 508)

Nick Ritchie also equated the debates around nuclear weapons with wider debates about the nature of power and order in international society as a whole:

This is in many ways symptomatic of a wider geopolitical and cultural angst in the United States and industrialized North about the fate of the "liberal international order." Both expressions of ordering anxiety—the specific nuclear dimension and the wider geopolitical frame—are at heart about the future of hegemonic structures of power in global politics (Ritchie, 2019; 410)

These critiques of the nature of nuclear order are often used to challenge the concept of nuclear order as a kind of 'enlightenment order', one which is characterised by rationality and committed to the use of public reason (2007: 433). The debate which ensued provoked an entire issue of the journal *International Affairs* (vol. 93, No. 3, May 2007) and indeed a rejoinder by William Walker in the subsequent issue (2007: 747-756).

This was a significant debate in the literature over the nature of the nuclear order. At the heart of the debate was a belief that the old nuclear order had gone with the end of the Cold War and the new was yet to emerge, typified by Brad Roberts' contribution 'All the king's men' (2007: 523-530). The argument presented in this thesis is closer to that of Walker, but recognising that the order did change decisively following the end of the Cold War from one which balanced non-proliferation with disarmament and deterrence to one overwhelmingly focused on non-proliferation and the security of nuclear materials. Detailed consideration of this shift in the nuclear order is a gap in the literature which this research seeks to address.

¹⁶ The term 'nuclear weapons apartheid' was first used by Indian diplomat, V.M. Trivedi

2.5.8. Membership

Adam Watson introduced a further test for the existence of an international society of states,, that of 'membership' of international organizations such as the United Nations, which 'make rules for international conduct' and as such 'general membership [of the UN] involves the activities listed by Bull as grounds for considering there is a global international society' (1987: 149). This would seem to fit with the nuclear order.

Once a sovereign nation-state has voluntarily joined the international nuclear order, it is bound by the rules of that order so long as it is a member. Membership is, therefore, a qualification for those within the order who are held by the rules of the order of which they have sought membership. But how is order maintained amongst the membership? Wendt (1999) claims this is achieved through some combination of 'coercion, calculation and belief.' Barry Buzan said:

One might think, as a starting point, that social orders held together by coercion would be least stable, those by calculation vulnerable to a change in the cost/benefit ratios, and those held together by belief in the underlying values/principles the most stable. (2006 (b): 365).

There are significant limits on how 'coercion' may be applied in international society and specifically in the international nuclear order. Wendt further sees 'coercion' as evidence of 'shallow' levels of internalisation, whereas 'belief' would indicate 'deeper' levels. In the nuclear order, coercion is upheld, at times, through the IAEA inspection regime, the UNSC and great power management. 'Calculation' is the assessment by member states of the consequences of not following the rules, which led to the withdrawal of membership by North Korea in 1994 and is the subject of ongoing 'calculation' by Iran through the JCPoA. How these elements interact to contribute to stability or instability in the nuclear order will be explored in future chapters.

2.5.9. Raison de systeme

This calculation of 'membership benefits' was developed by Watson to be a *raison de systeme*¹⁷ (Watson, 1992:14) which was defined as a 'belief that it pays to make the system work [for its members].' This is a distinctive approach of the ES and is a counterpoint to the realist/Machiavellian view of *raison d'état* of purely political reasoning and reinforces the *societal* component of international society. It will be argued in this research that the tensions and dividing lines see that promises of the reduction of nuclear

¹⁷ It is not accidental that this term was used as it also serves to provide a contrast with *raison d'etat* or a more narrow national interest associated with realism rather than a shared common interest.

weapons and the spread of civilian nuclear power are making members of the society question whether in the international nuclear order 'it pays' to be 'bound by a common set of rules.' This is another area where we see an intersection between the theoretical claims and empirical evidence.

Some have pointed out this approach denotes a 'strong functional or utilitarian strand in Bull's work' (Alderson and Hurrell, 2000:6). This interpretation suggests a 'calculation' of national interest based on outcomes or benefits to members. Martha Finnemore has argued that the national interest of states is also shaped by the societies to which they belong and therefore 'States are socialised to want certain things' (1996: 2). This points towards the 'belief' end of Wendt's spectrum. We may see this 'belief' in states that are members of the nuclear order seeking non-proliferation and disarmament, even where such 'beliefs' may be against a narrow interpretation of their national interest. It will be argued later that 'non-proliferation' is the unifying and core 'belief' of the international nuclear order. As Barry Buzan has pointed out that those orders 'held together by belief [rather than coercion or calculation] are the most stable' (Buzan, 2006b: 365).

2.6. Primary Institutions and International Society

Central to the understanding of international society is the existence of certain primary institutions (PIs) (Buzan,2004: 187; Makinda, 2002: 366) ¹⁸ which shape it and hold it in place. These PIs are themselves accumulations/aggregations of norms, rules, principles, and values that have developed over time as practices of conducting proper relations between states. In this context, we are taking the meaning of these terms to be as stated by Krasner: 'Principles are beliefs of fact, causation, and rectitude. Norms are standards of behaviour defined in terms of rights and obligations. Rules are specific prescriptions or proscriptions for actions' (1983:2).

PIs are 'constitutive of both states and international society in that they define not only the basic character of states but also their patterns of legitimate behaviour in relation to each other, as well as the criteria for membership of international society' (Buzan, 2014:17). They represent 'international society's deep structure and include general principles, such as sovereignty and conventions such as multilateralism' (Spandler, 2014:

¹⁸ Buzan was the first to use the term 'primary' institutions, elsewhere they are described as 'fundamental' or 'basic' institutions; Buzan differentiated between 'master' and 'derivative' institutions [of international society]; Bull simply referred to them as institutions (Bull,1977: 71); Parrat has differentiated between '*practice-based primary institutions and treaty-based secondary institutions*' (2017: 623) whilst Holsti (2004:25) has divided institutions into 'foundational' and 'procedural' categories.

607). This would fit with Bull's belief that the states system was founded upon 'the exchange of recognition of sovereignty'—sovereignty of nation states is therefore constitutive of international society (Alderson and Hurrell, 2000:149).

In addition to sovereignty, Bull (1977) identified what have become known as the 'classical' PIs: Great Power Management; Balance of Power; International Law, War and Diplomacy. As relations between states evolve, so do the primary institutions which shape them (Buzan: 2004: 184; Buzan and Schouenborg, 2018: 200-201). They evolve and give rise to 'change and obsolescence' as the underlying norms, practices, and ideas change. Examples could be 'wars of conquest' and 'colonialism' (Holsti, 2004:17), which lost their legitimacy (Jackson, 1993:130) and ceased to be accepted as 'normative behaviours'.

2.7. Conclusion

The purpose of this chapter has been to highlight specific gaps in the existing literature. We have generally concluded that the application of English School concepts to the world of nuclear weapons is underexplored. One reason why this is so is that the nuclear order has tended to be thought of as part of the global order or international society. The claim here is that whilst the foundational terms of order are consistent, they require modified understandings to be applied to the INWO. The reason for the difference is the unique destructive power of nuclear weapons themselves. They are the absolute weapon and a game-changer. Hence, great power responsibility; concepts of legitimacy in relation to the possession of nuclear weapons; territorial sovereignty and the membership benefits accruing from the *raison de systeme* of the INWO are all distinctive both in their aims, functions and principal actors. These differences are underexplored in the current literature and are therefore the purpose of this research. In the next chapter, we will explore in more detail the primary institutions of the INWO and explain how the INWO is analytically distinguishable from the wider nuclear order.

Chapter 3: Theoretical Framework

3.1 Primary institutions in the nuclear weapons order

This research will show that all these classical PIs outlined by Bull are evident in the nuclear weapons order but that some, such as great power management, balance of power, and war, behave, or are understood, in different ways. Robert Falkner and Barry Buzan argued that War, Balance of Power and Great Power Management belong to a 'pluralistic logic' as opposed to a solidarist one (2018:9). Building on the work of Holsti (2004), Falkner and Buzan have also suggested two main criteria for testing whether 'norms' qualify as PIs: First, it is a clearly defined principle applicable across all society; Second, there is a high degree of consolidation giving rise to the birth of new secondary institutions (2017: 8). This is the twofold test which I shall proceed to apply to PIs in the context of the international nuclear weapons order. This is also at the heart of a distinctive categorisation, and it departs from the assumption that the international nuclear order is co-terminus with the Nuclear Non-proliferation Treaty (1968), or simply part of a global order as a whole. This would be contested. Mariana Budjeryn has written:

the phrase "global order" refers to the notion that nuclear weapons do not exist in a vacuum; that they are part and parcel of the systemic, institutional, and normative arrangements on national and international levels; that these arrangements are interconnected; and that pulling on one corner of these arrangements sends ripples across the entire fabric. (2022: 339)

Andrew Hurrell has stated that:

In this type of global order, we are not dealing with a vanished or vanishing Westphalian world...but rather one in which solidarist and cosmopolitan conceptions of governance coexist, often rather unhappily, with many aspects of the old pluralist order (2007: 9).

My argument is that the international nuclear weapons order represents part of that 'old pluralist order' but is not limited to this. Indeed if we were to narrow down the field of consideration to nuclear non-proliferation we might even see the emergence of a solidarist strand in that it reflects 'the solidarity of the states comprising international society, with respect to the enforcement of law' (Bull, 1968). This is an area which could benefit from further exploration. For now, I will simply introduce that the model of the INWO proposed here could be argued to progress/regress from the solidarism of non-proliferation to the pluralism of disarmament and deterrence.

This is important as there is a case to be considered as to whether there should be new PIs added to the classical list to understand the international nuclear weapons order

(Smetena,2020; Leveringhaus and Hurrell, 2020:233; Buzan, 2004:184). For the purposes of this research, this claim is rejected for two reasons: First, that Bull was speaking not only *in* the nuclear age, but also in many ways *to* the nuclear age. His selection of classical PIs reflects this. Secondly, by introducing new primary institutions it makes the task of drawing comparisons between the international nuclear order and other orders within international society more difficult. We, therefore, arrive at a common starting point for both our study of international society, the international nuclear order and the INWO within it.

Hedley Bull explains his selection of classical ‘primary’ institutions thus:

States collaborate with one another, in varying degrees, in what may be called the institutions of international society: the balance of power, international law, the diplomatic mechanism, the managerial system of the great powers and war.’ (Bull,1977:71).

Scholar	Bull	Mayall ¹	Holsti ²	Buzan	Jackson
Primary Institution	Balance of Power	Diplomacy	Sovereignty	Sovereignty	Diplomacy
	International Law	War	Territoriality	Territoriality	War
	Diplomacy	Balance of Power	Law	Diplomacy	International Law
	War	International Law	State	Great power management	Sovereignty
	The Great Powers	Great power concert	War	Equality of people	Colonialism
				Market	
				Nationalism	
				Environmental stewardship	

Table 1: Summary of Primary Institutions by Scholar (Buzan, 2004: 174)³

The selection of PIs will be key to the analysis of the international nuclear order which follows. This is important because, as Kalevi Holsti puts it, ‘institutions are the context within which games of international politics are played. They represent patterned (typical)

¹ Mayall (2000) makes a distinction between institutions: law, diplomacy and balance of power and principles: sovereignty, territorial integrity and human rights (Little, 2002: 148).

² Holsti (2004: 25-27) differentiates between ‘Foundational’ and ‘Procedural’ institutions describing procedural institutions as ‘repetitive practices, ideas and norms that regulate interactions and transactions between separate actors’

³ Table is largely based upon Barry Buzan in FIWS (2004: 174) with the modification of including Buzan’s list of Master Primary Institutions on p.184 of FIWS, 2004.

actions and interactions of states, the norms, rules, and principles that guide (or fail to guide) them.’ (2004:18). They are also ‘durable and recognised patterns of shared practices rooted in values held commonly by the members of the interstate societies, embodying a mix of norms, rules and principles’ (Buzan, 2004: 181). Charlotta Friedner Parrat terms this the ‘basic wager’ of the English school claim that it is primary institutions rather than international organisations that maintain order in international society (Parrat, 2017: 623).

3.1.1. Selection criteria for PIs of the nuclear order

What is apparent from Table 1 (above) is the lack of agreement on what constitutes primary institutions. Part of the reason for this has been placed at the door of Hedley Bull for ‘putting forward definitions that are vague and/or tended to shift and/or were not applied with sufficient rigour’ (Wilson, 2012: 568). Several attempts have followed to add ‘rigour’ and to broaden and modernise the selection of primary institutions, most notably Buzan, 2004 and Holsti, 2004. However, these attempts have tended then to add further layers of complexity: Buzan’s (2004) concept of master and derivative institutions, from which he constructs a nested hierarchy of institutions (2004,184); Holsti’s (2004) concept of foundational and procedural institutions (Buzan, 2004:174), and, Reus-Smit’s division between constitutional structures and fundamental institutions (1997:566).

3.2. Selected primary institutions of the nuclear order

Turning to the specific primary institutions of the international nuclear weapons I will argue that two of these primary institutions behave in ways consistent with other ‘orders’ of international society and they are: sovereignty, international law and diplomacy, but that the three other primary institutions: balance of power; great power management and war need to be understood in different ways within the nuclear order context. In this section, I propose to briefly expand on what is believed to be the nature of those differences.

3.2.1. Balance of Power

Balance of Power is a metaphor for an even distribution of power, in which ‘no power is so preponderant that it can endanger the others’ (Wight, 2019:174). Balance of Power is for Bull, a foundational institution, because it sets ‘the conditions on which other institutions depend’ (Bull, 1977:102). Balance of Power in Bull’s primary institutions is multifaceted, ‘simple vs. complex balances; general vs. local balances; subjective vs. objective balances; and fortuitous vs. contrived balances’ (Little, 2007: 134). Most

crucially for this analysis, Bull devotes a substantial section of his chapter 5: Balance of Power and the International Order to Mutual Nuclear Deterrence (1977:116-121), addressing the particular dynamics of the INWO and in doing so acknowledges it operates differently to conventional balances.

Balance of Power, in Bull's analysis, has been much debated. Some (Little, 2007:141) claim that Bull's 'approach to balance of power corresponds almost exactly with the one later adopted by Waltz' (1979).' This refers to Waltz's claim in *Theory of International Politics* that 'if there is a distinctively political theory of international politics, balance of power is it' (1979:117). However, in the international nuclear order, Bull sees the Balance of Power operating more in an 'instrumental' than a 'non-instrumental' way (Jackson, 2000:113-116). The basis for this instrumental application of balance of power is Mutual Nuclear Deterrence, of which Bull had been a consistent advocate. In TAS, Bull sets out deterrence policy as being 'the ability to strike at the other [power] with nuclear weapons....is a necessary condition of the balance of power between them.' (1977:116). There are two notable differences in Bull's account of the Balance of Power in the nuclear order, which will be explored in the analysis.

First, there does not appear to be any suggestion that the possession of nuclear weapons may comprise legal and moral obligations in an international society of 193 states, where only nine states possess this 'absolute weapon'. Moreover, the nine men, who hold the 'fate of the earth in their hands' (Schell, 1982), have never met together on the issue of nuclear weapons. Yet they alone have the final say on use, which would have a profound impact on *all* states and the very existence of the 'great society of mankind' (Bull, 1977:22).

Second, Bull sets out that in the nuclear order, Balance of Power is held in place by a belief by one power that the other power can inflict an unacceptable level of harm upon it (Bull,1977:185), and as such, 'deterrence' should take primacy over 'defence.' This approach would suggest that nuclear weapons are exceptional in the international order. The value of nuclear weapons lies not in their strategic utility, but in deterrence based upon the doctrine of the threat of an assured second strike. Warfighting with nuclear weapons represents a strategic failure, as nuclear war would be catastrophic. Martin Wight wrote of 'the prevalent belief that nuclear weapons have transformed international politics, giving the Great Powers something to fear more than they fear one another, and so making war impossible' (Butterfield and Wight, 2019: 49). Bull acknowledges this implicitly; this research holds to this assumption explicitly. Finally, Bull points to 'irrelevance' of equality or parity [of military strength] to mutual nuclear deterrence'

(1977:117). Hence, North Korea, Israel and Pakistan, which may not be considered great powers, can achieve a 'balance of power' with the United States and Russia because of the doctrine of mutual nuclear deterrence. It is, therefore, not necessary for a nuclear weapons state to achieve a 'preponderance' (Wight, 2019:174) to 'endanger' other states, both intentionally and collaterally.

3.2.2. Great Power Management

The test of Great Power status, according to Ranke, is that a Great Power, 'must be able to maintain itself against all others even when they are united' (von Laue, 1950: 203). Bull regarded Ranke's definition as 'too vague', though this judgement was from almost 150 years and two world wars later. Ranke was writing his essay of 'Great Powers' in 1833 in a time when the Congress of Vienna (1815) had left Europe with a group of 'great powers' (Britain, Russia, France, Austria and Prussia) who were privileged in the system and responsible for preserving a balance of power/order in the system. This linkage between Great Powers and Balance of Power was seen as being 'simultaneously linked to the balance of power and international society' (Little, 2006:110). Buzan views great power management as a derivative institution of the balance of power, which is the master institution (Buzan, 2004: 184).⁴

How to define a great power is the subject of much debate. It is, however, necessary to explain what we mean by a 'great power' in the nuclear context. There are two possible interpretations: First, it is the possession of a nuclear weapons capability *per se*. Bull explicitly rejected this on the basis that possession of a nuclear capability was a necessary condition but not sufficient to determine great power status (1977:197).⁵ The second is to see great power status as something which is not just a function of scale and capability, but as a status conferred upon certain actors within the international order in exchange for those actors assuming additional responsibilities to manage the system in such a way as to maintain order and resolve conflicts.

Hedley Bull has highlighted the 'permanent problem' for great powers in 'securing and preserving the consent of other states to the special role they play in the system' (1977: 221). This function is especially important in the nuclear order. But it is also reflective of a social dynamic of legitimacy derived from within the system; in other words, a power

⁴ In *Making Global Society* (Buzan, 2023), GPM is no longer a derivative of Balance of Power (2023: 15)

⁵ Hedley Bull identifies Britain and France who possess a nuclear capability but who. In Bull's view, the three great powers [in 1977] were the United States, Soviet Union and China. (1977: 197). It is presumed on the same logic he would not regard Pakistan, Israel or North Korea as great powers, although India would possess a strong claim for great power status in 2025 and Russia may lose it.

cannot self-declare itself as a 'great power'. It is a status conferred upon it by others and therefore exists only within an international society. We are choosing to adopt the second option for defining 'great power' status, which is a privileged status conferred on certain members of the order in exchange for their acceptance of responsibilities for the management of the order. Great Power management is a 'social status' upheld through 'shared norms, values, mechanisms and recognition' (Leveringhaus and Hurrell, 2018: 240). In the international nuclear weapons order, that is the group of five recognised nuclear weapons states (NWS)⁶ under the NPT, which has been given and has accepted certain rights and responsibilities to manage the unequal power between states in order to ensure that the objectives of the NPT are met: disarmament, non-proliferation, and the expansion of peaceful civilian nuclear power. Consequently, the four nuclear-weapon states not party to the NPT have not accepted these additional responsibilities in the system and therefore are not 'great powers', and this is the position adopted for this analysis.

That said, Bull was clear that 'the first and cardinal contribution of the great powers to the international order is to manage their relations with one another' (1977: 201). It was the perceived failure, particularly of the United States and the Soviet Union to manage their relations which gave rise to Hedley Bull's polemic in 1980, *The Great Irresponsibles?* in which he stated, 'The general peace and security of the international system is primarily a matter of relations amongst the great powers...to preserve a balance of power' (1980: 438). Bull said that 'the control of proliferation depends, more than it depends on anything else, on the practice of restraint by nuclear weapons states' (Bull, 1975:188). 'A rational hegemon' observed Hurrell, 'will engage in a degree of self-restraint and institutional self-binding to undercut others' perceptions of threat' (2007:282). Jan Ruzicka concluded, 'Bull's analysis of the international order [in TAS] and the place of nuclear proliferation in it constitutes an insistent plea for restraint' (2017:144).

Here again we see reference to the central assumptions of *rationality, reason and restraint* in the *rationalist* approach, that it is based on assumptions of human rationality and the non-use of nuclear weapons is a moral norm (Tannenwald, 2007:58). It recognises that with great powers come greater responsibilities for the system, as Bull put it, 'since [nuclear conflict] would be as much a catastrophe for any middle or small power as it would be for the belligerents themselves.... the great powers act as trustees for mankind

⁶ Initially, the NPT recognised nuclear weapons states were USA, Soviet Union and the UK. They were joined by the Peoples Republic of China and France in 1992. India, by any measure a 'great power' remains a vocal critic of the 'inequity' of the NPT and remains outside of its membership (Krishna in Bull and Watson, 1992:284)

as a whole' (1977: 288). The necessary 'restraint' and 'self-management of great power relations' appear not to be happening in the current era, and as a result, the legitimacy of not only great powers but the system itself is brought into question, moving it away from both order and justice. This leads us to the final variation of classical primary institutions in the international nuclear order: *war*.

3.2.3. War

Bernard Brodie took the view that the arrival of nuclear weapons fundamentally changed the calculation of war, or, more specifically, war between nuclear states. He wrote, 'Thus far, the chief purpose of the military establishment has been to win wars. From now its chief purpose must be to avert them' (Brodie, 1946:76). Bull sees that the calculations of war have changed significantly in the nuclear age, 'It is true and obvious that a war fought without restraint or limitation by states equipped with nuclear weapons....cannot serve as an instrument of foreign policy' (1977:183), but, still he sees a role for war for three reasons: first, that most wars are not fought between nuclear armed states; second, because when a nuclear power is involved in war its opponent often is not nuclear-armed and third, because nuclear armed states have engaged in military confrontations without exploiting nuclear weapons at their disposal (1977: 183-185).

Bull burnished his realist credentials when reviewing Walzer's *Just and Unjust Wars*, pointing approvingly to the fact that Walzer had said, '[nuclear] deterrence for all its criminality, falls or may fall under the standard of necessity (1977: 283)' (Bull, 1979:595). Although Bull leaves out the crucial '*for the moment*' from the end of the quote to which Walzer then added, 'Because it [nuclear war] is unacceptable, we must seek out ways to prevent it, and because deterrence is a bad way, we must seek out others' (Walzer, 1979: 283). Perhaps reflecting a change in perspective, Hedley Bull wrote an Adelphi Paper a year later on the future conditions of strategic deterrence, in which he appears to outbid Walzer on the moral unacceptability of nuclear deterrence when he wrote, 'all policies of nuclear deterrence, unilateral or multilateral, are morally disreputable. The deliberate slaughtering of millions of innocent people, for whatever reason, is wicked. So is threatening to do so, if this means we intend to carry out the threat' (Bull, 1980:16).

In this context, there are two contradicting positions on war which will need to be explored: First, there is an argument to be made that in a nuclear setting, the institution of 'war' should be designated as 'war avoidance' on the basis that this is the 'common

goal' *'raison de systeme'* and 'normative inhibition' of the states that are party to the international nuclear order.

Second, there are circumstances in which 'conventional war' may be an instrument of maintaining the international nuclear order, or is claimed to be. For instance, in preventing certain states from acquiring nuclear weapons in breach of their NPT commitments, as in the case of the U.S.-led invasion of Iraq in 2003. It is, however, in the partial application of this principle that the legitimacy of the great powers has been brought into question in the eyes of non-nuclear states (Tannenwald, 2013: 305). Inherent in this 'moral judgment' is a view that certain states can be trusted, and others cannot, but who decides and on what basis? (Krause, 2007: 498). Some may point to a higher responsibility under the UN Charter (Chapter VII) for the UNSC to 'maintain or restore international peace and security', which can often lean in application more towards order than justice. It is a core claim of this research that there are particular features of the international nuclear order which make it unique amongst other orders, e.g. Climate Change, International Financial System, World Trade Order, Transport and Navigation, Communications, Health, etc. Moreover, these distinct features are brought into sharper relief when we separate out the nuclear weapons from the broader nuclear order. But what is the evidence to support this claim?

We began by stating that an order, in the ES sense of the meaning, is comprised of shared norms, rules, values, and goals which are in turn held in place by primary institutions, universal values and together provide the basis for sovereign states to form certain organisations (secondary institutions) for the achievement of these common goals. I have set out these institutions and proposed that the strongest agreement on common goals is to be found in the area of non-proliferation, but what about those underlying norms, rules and values? Buzan noted that 'The terms 'norms', 'rules', 'values' and 'principles' are scattered throughout the literature of both regime theory and the English school, yet it is seldom clear what if anything, differentiates them, and in many usages they seem interchangeable' (Buzan, 2004: 163). 'Norms are prescriptions or proscriptions of behaviour' (Katzenstein, Wendt and Jepperson, 1996, cited in Tannenwald, 2007: 10).

3.3. Norms of the International Nuclear Weapons Order

It is worth pausing at this point to consider specific norms of the INWO:

Norms	Procedural norms	Emerging norms
War avoidance (between NWS)	Responsibility	Prohibition
Non-use (nuclear taboo)	Restraint	No-first use
Non-proliferation (state and non-state actors)	Reciprocity	
Non-testing	Transparency	Declining norms
Crisis communication	Dialogue	Non-threat of use
Peaceful use (safeguards)	Consensus	Minimum credible deterrence
Disarmament	Preservation of institutions	
Deterrence (and extended deterrence)	Trust	
Nuclear security (materials and facilities)	Promotion of order	
Inspection and Verification (IAEA)	Protection of institutions upholding order	
Assured vulnerability (MAD)		
Security Assurances (negative and positive)		
Observance of Nuclear-Free Zones		

Table 2: Norms of the international nuclear weapons order

This list of 27 norms of the INWO, which has been compiled here, could be narrowed down. Nina Tannenwald has suggested a list of 12 (Non-use; non-proliferation; disarmament; non-explosive testing; peaceful uses; nuclear safety and security; reciprocity; transparency; strategic dialogues and former norms against missile defence; intermediate range missiles; treaty-based arms control. Michal Smetana has narrowed this down still further to 6 'fundamental norms' of the INO: (1) non-proliferation; (2) peaceful use; (3) disarmament; (4) deterrence; (5) military non-use; and (6) universality. There is a high degree of crossover between these lists. Some of these are problematic in that they place too high an emphasis on the NPT, which is an important part of the INWO, but by no means could it be described as being its entirety. Knopf writes:

A focus just on the NPT, however, is too narrow. The NPT remains the foundation of the larger non-proliferation regime, but over time the treaty has been supplemented by other cooperative non-proliferation arrangements. (2022: 200)

According to Holsti, 'Institutions reflect norms, they are the rules and etiquette. They prescribe how critical actors or agents should behave, under what conditions they can do certain things, what types of things are proscribed and what protocols and etiquette should be observed in various circumstances' (2004: 22) Finnemore states that norms

are 'shared expectations about appropriate behaviour held by a community of actors' (1996:22). 'Norms are social: where they are shared, thus far does society reach.' (Clark, 2007:181) and are therefore a measure of the intensity and effectiveness of its institutions to extent that norms can be enforced.

This underscores the purpose of norms, rules and principles is functional as Kratochwil suggested they are all 'guidance devices' designed to resolve problems in social interactions (1991:10) and are 'elementary rules of practice that states formulate to solve coordination and collaboration problems associated with coexistence under anarchy' (Reus-Smit, 1997:557). In Krasner's definition: 'Norms are standards of behaviour defined in terms of rights and obligations' whereas rules are, 'specific prescriptions or proscriptions for actions' (1983:2).

Emile Durkheim, referred to 'things which many people do...because the socialised groups they belong to do these things' and as such they take on the status of 'social facts' (1895/1982:1) This raises the question as to what the 'social facts' may be of the international nuclear order? And do they differ from norms? To Buzan, 'social facts' are subsets of institutional facts, 'which arise out of collective intentionality' and were 'distinct from 'brute facts' which exist without human thought affecting them' (2004:166). This suggests that social facts represent a higher level of formality than norms and rules because they are created 'intentionally' as are secondary institutions.

3.4. *Secondary institutions*

The claim of the ES is that primary institutions are the matter out of which secondary institutions are formed. We have briefly explored the PIs of international society and have narrowed down the choice to three PIs, which need to be understood in unique ways within the nuclear order: great power management, balance of power and war. In the next chapter, we shall explore the evolution of the nuclear order. But, here it is important to set out what we mean by the secondary institutions of the nuclear order. Bull was clear that secondary institutions emerged from certain common interests. The difference between primary and secondary institutions is that primary institutions *exist* in a society of states, whereas secondary institutions are *creations* of the society of states. Andrew Hurrell states that rationalist institutionalism views institutions as 'purposively generated solutions to different kinds of collective action problems' (2009: 14).

We can trace the formation of secondary institutions back to the earliest attempts to create an atomic weapon. The Quebec Agreement between the United States and the

United Kingdom in August 1943 merged two major nuclear research projects of Tube Alloys (UK and Canada) and the Manhattan Project (United States). The common interests at that time were a race to beat Nazi Germany to the development of an atomic weapon. It was therefore an institutional arrangement created by the great powers, who had clear common interests and a shared fear that if Germany developed the capability before the Allies, it would dramatically shift the balance of power between them and likely impact the war's outcome.

In another example of secondary institution formation, towards the end of World War II, the 'peace-loving' nations of the world gathered to sign the Charter of the United Nations:

We the peoples of the United Nations determined to save succeeding generations from the scourge of war, which twice in our lifetime had brought untold sorrow to mankind....and for these ends...by the acceptance of principles and the institution of methods, that armed force shall not be used,⁷ save in the common interest..

The Charter had been agreed upon at Dumbarton Oaks (October 1944) and finalised at the Yalta Conference (February 1945) by the great powers and then Allies: the United States, Soviet Union, and United Kingdom. It was a secondary institution which was established for the purposes of maintaining peace, the rights of sovereign states 'large and small', the 'dignity and worth of the human person' and for the 'economic and social advancement of all peoples.'

The secondary institution of the United Nations was, in turn, to have a role in shaping the nuclear order. At the first meeting of the United Nations General Assembly (UNGA) in London in January 1946, and in their first resolution, the UN General Assembly in their first act established a 'Commission to Deal with the Problems Raised by the Discovery of Atomic Energy' (A/RES/1/1) with the aims including 'the elimination from national armaments of atomic weapons and all other weapons adaptable to mass destruction' (5 (c)). Here we see the primary institutions of *diplomacy* and *international law* being engaged to deal with the common interest of all sovereign states in seeking to prevent the proliferation of nuclear weapons technology. The secondary institution was the United Nations Atomic Energy Commission (UNAEC). However, the primary institutions of great power management were evident from the outset. The UNAEC had six permanent members (the U.S., the Soviet Union, China, the United Kingdom, France, and Canada), but the agenda for its work was largely set by the United States, in the form of the Acheson-Lilienthal report and the U.S. delegate to the UNAEC, Bernard Baruch. The only

⁷ United Nations Charter: Preamble (26 June 1945)

alternative plan to the one submitted by Baruch was the Gromyko Plan, prepared by then-Soviet Foreign Minister Andrei Gromyko and presented to the Atomic Energy Commission in June 1946.

This is important because it effectively baked into the nuclear order from the outset the United States' leadership, with the Soviet Union as an effective co-chair of the nuclear order, even though the Soviet Union was not a nuclear power until August 1949. The UNAEC failed. It failed because the great powers of the United States and the Soviet Union were unable to reach an agreement over which comes first, U.S. disarmament or universal rejection of nuclear weapons. The Soviet Union went on to develop its own atomic weapon. Meanwhile, the United States began developing an even more powerful thermonuclear weapon (see Illustration 4 below), which it tested in 1952.

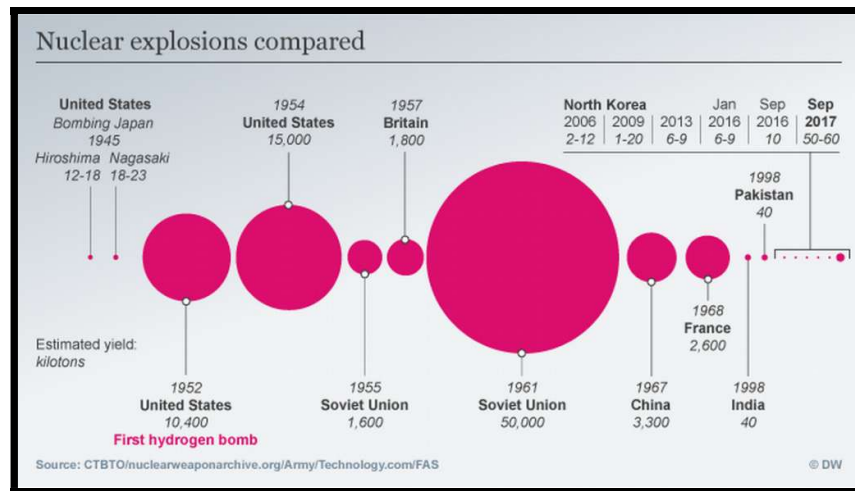


Illustration 4. Nuclear explosions compared 2017⁸

The Nuclear Non-proliferation Treaty (NPT), which was signed in 1968 and came into force in 1970, is, along with the International Atomic Energy Agency (established 1957), regarded by many as the most important secondary institutions of the nuclear order. Yet, without the United States and the Soviet Union co-chairing the Eighteen-Nation Disarmament Committee (ENDC), which drew up the NPT and presented the draft, it is unlikely that it would have been agreed. As with the UN Security Council (UNSC), and the UNAEC, the great powers carved out for themselves certain privileges. In the case of the

⁸ (CTBTO/nuclearweaponsarchive/Army/Technology.com/FAS) published by DW News (9 March 2017)

NPT, a 'legitimate' nuclear weapons state (NWS) is one which had tested a nuclear device before 1 January 1967 (Article IX).⁹

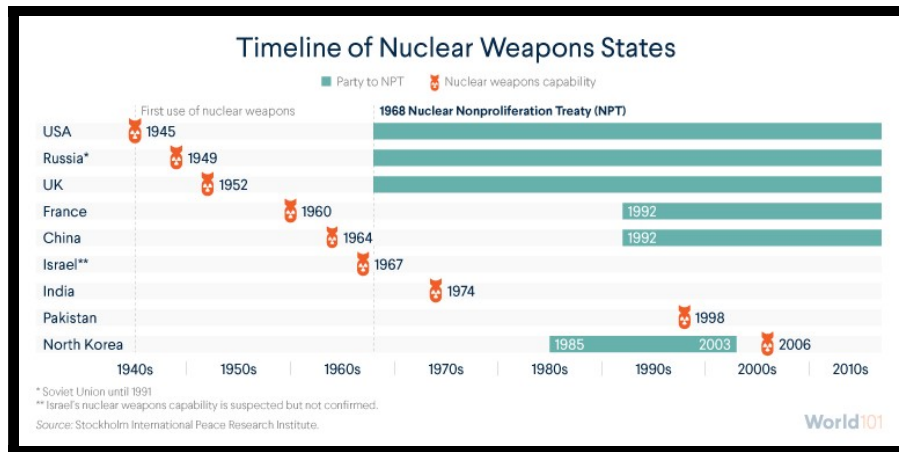


Illustration 5. A timeline of new nuclear weapons states (SIPRI)

Conveniently, this allowed all the UNSC P-5 nations to maintain their nuclear weapons (see Illustration 3 above) whilst being part of an institution designed to stop all other states from acquiring a nuclear capability (Articles I and II). It also made the great powers (initially the United States, the Soviet Union and the United Kingdom)¹⁰ *de facto* gatekeepers of the nuclear weapons order under international law.

In the course of the research, we shall see how the number of secondary institutions in the nuclear order has proliferated (see: Appendix I) with what William Walker called 'baffling complexity' (2011: 25). The purposes were to meet the evolving challenges of the nuclear order, including proliferation, missile technology, and missile defence systems, the collapse of the Soviet Union and most recently nuclear terrorism. Yet it is argued here that at the heart of this order has been the United States leadership and a Soviet/Russian partnership.

For these reasons, the United States has preferred to deal with the issue of nuclear arms control bilaterally with Russia rather than through multilateral forums and establishing bilateral secondary institutions. This great power management has led to remarkable progress¹¹ (see illustration 6 below). Perhaps the most extraordinary chapter in the

⁹ For a detailed account of this, see: Maddock, S.J. (2010). *Nuclear Apartheid: The Quest for American Atomic Supremacy from World War II to the Present*, published by the University of North Carolina Press. Especially Chapter 9. *A Treaty to Castrate the Impotent—Codifying Nuclear Apartheid, 1965-1970* pp. 266-299.

¹⁰ France and China joined the NPT in 1992.

¹¹ For a good overview of bilateral nuclear arms control treaties between the U.S. and Russia, see: Kimball, D. (2022). [U.S. Nuclear Arms Control Agreements at a Glance](#), published by the Arms Control Association (last updated October 2022).

evolution of the nuclear order were the Presidential Initiatives agreed upon between President George H.W. Bush and the Soviet Leader Mikhail Gorbachev in 1991. This led to the Soviet Nuclear Threat Reduction Act (also known as the Nunn-Lugar Cooperative Threat Reduction Act) under which the United States funded programmes to secure nuclear materials and weapons in former Soviet republics of Ukraine, Belarus and Kazakstan. Those three states gave up nuclear weapons on their territory and joined the NPT in exchange for security assurances by Russia, the United States and the United Kingdom in the Budapest Memorandum (1994).¹²

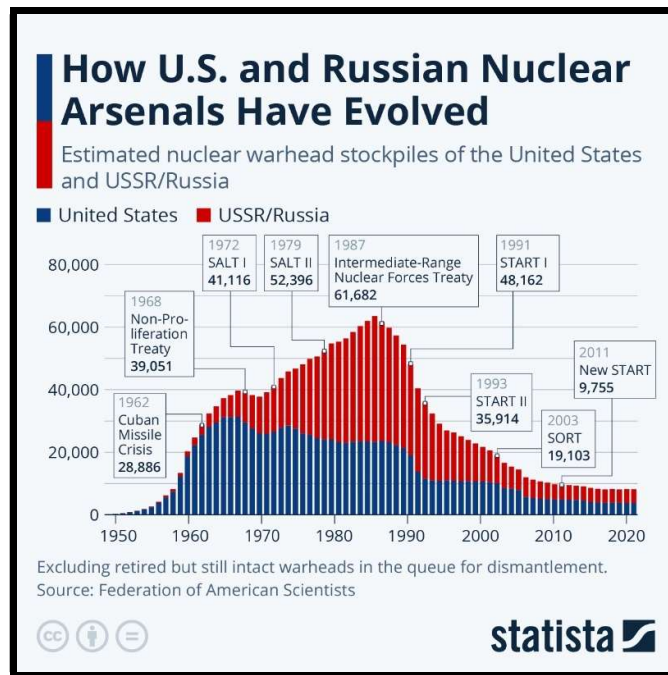


Illustration 6: How U.S. and Russian Nuclear Arsenals Have Evolved (Martin Armstrong, 22 February 2023, published by Statista)

A final example of how the United States leadership and Russian partnership dynamic works in the nuclear order would be the response following the 2001 terrorist attacks on the United States and fears that the al Qaeda terrorist network was actively seeking materials to construct a nuclear weapon, and the realisation of the scale of the network of A.Q. Khan’s nuclear know-how network. This led to the sponsorship by the United States and Russia of UNSC Resolution 1540 on the terrorist threat of Weapons of Mass Destruction. This was followed in 2006, by the announcement by the United States and

¹² See also the Lisbon Protocol 1992, under which the three former Soviet states agreed to return their nuclear weapons to Russia following the dissolution of the Soviet Union in 1991.

Russia led to the establishment of the Global Initiative to Combat Nuclear Terrorism (GICNT).

What is interesting about this particular chapter is that it showed that cooperation between the U.S. and Russia was still possible in the nuclear order when co-operation had ceased in many areas of the global political order as a result of the invasion of Iraq (2003) and the expansion of NATO in 2004 to include five former member states of the Warsaw Pact (Bulgaria, Romania, Lithuania, Estonia and Latvia). This suggests that the nuclear order can 'march to the beat of a different drum' in the global political order, and that this is due to the overriding common interests in non-proliferation for states. It reflects the leadership of the United States and its essential partnership with Russia to maintain great power management. It is rational. It is unique. It is a United States-led partnership with Russia, and it is more robust than may be first thought.

3.5. The relationship between Primary and Secondary Institutions

We have explored how aggregations of norms, rules and customs accumulate to form primary institutions of international society and how these primary institutions are constitutive by defining the laws of the game and also the legitimacy of the 'player/actor'. They arise out of social and human interaction 'independently of any purposive effort' (Spandler, 2015: 607). 'Fundamental institutions are those elementary rules of practice that states formulate to solve the coordination problems associated with coexistence under anarchy' (Reus-Smit, 1997: 557). They are linked to state behaviours and 'guide state action in international society' (Smetana, 2020: 86). They also result from inter-human relations and therefore comprise 'intersubjective understandings'¹³ (Wendt and Duvall, 1989: 53). They involve moral and ethical claims and as such are normative and reflect 'historically contingent intersubjective meanings attached to international society's basic ordering practices' (Schmidt and Williams, 2023: 3).

Secondary institutions, by contrast, are designed for a specific purpose by states, and in some cases other actors (Knudsen, 2018: 43) and may be seen as regulative in their function. Keohane has claimed all these institutions fall into three categories, '(i) Formal intergovernmental or cross-national non-governmental organisations (purposive entities capable of monitoring activity and reacting to it) [e.g. IAEA] (ii) International regimes (with explicit rules—'negotiated order'—but unable to adapt or transform) [e.g. Nuclear Suppliers Group] and (iii) Conventions (informal institutions with implicit rules and

¹³ 'Involving or occurring between separate conscious minds' Merriam-Webster Dictionary

undertakings) [e.g. The Humanitarian Initiative]¹⁴ (Waever, 1992:109-110). Barry Buzan points out that:

A key function of modern secondary institutions is to reflect and reproduce the primary institutions that make up the international normative structure. They both socialise states into the norms and practices of international society, and are sites of political contestation and conflict over those norms and practices. Secondary institutions thus play important roles in embedding, reproduction, development and sometimes decay of the primary institutions of international society (Spandler, 2015; Navari, 2016; Knudsen and Navari, 2019). (Buzan, 2023: 16)

Understanding the interaction between primary and secondary institutions and locating them on the pluralist/solidarist spectrum would be useful for analysis as they shape each other through 'socializing states into the norms and practices of international society' (Finnemore, 1993; Navari, 2016: 298). But how does this interaction and shaping occur? Charlotta Friedner Parrat suggests:

If a primary institution, by definition, consists of a reproductive practice tied to a discursive legitimation made up of norms, beliefs, and expectations defining the roles and relations of international society's actors. (2024: 453).

In terms of modelling the interaction between states, Gehring and Oberthur (2006) used a series of organisational methods to observe the level of institutional interaction in EU environmental governance. Their starting position was that decisions taken by one institution can have an impact on other institutions. It may be said that these decisions therefore have a 'causal influence' on other institutions, and as such, it may be said that the institutions have a causal relationship. Often, this is conflicting, but it can also be cooperating. This approach, therefore, begins with identifying 'causal mechanisms' which are described as 'not only the structure of the multifaceted realm of institutional interaction and explain variation in cases, but also demonstrate which actors are indispensable for the emergence of institutional influence (2006:7). They borrow a taxonomy of four different types of interaction or causal influence from Olav Schram Stokke (2001):

First, ideational interplay (referred to elsewhere as diffusive interplay and is defined as a 'process of learning' (Stokke, 2001:10). The second is the normative interplay where norms of one institution contradict or validate those of another (Gehring and Oberthur, 2006: 22). The third is Utilitarian interplay where decisions of one institution have 'costs and benefits' on another (2006:22) and Fourth, interplay management where the activities of one institution are deliberately coordinated with those of another. (2006:22).

¹⁴ My [examples] added

This results in a process of institutional interaction which moves from changes in perception, to changes in preference to changes in behaviour (2006:33).

This approach will facilitate an exploration of the interactions between, for example, the First Committee (Disarmament and International Security) of the United Nations General Assembly, the Conference on Disarmament, and the NPT Review Conferences. Do the secretariats overlap? How do the decisions, or failure to reach decisions, impact other institutions? Do funding sources overlap? What evidence is there of interplay management between institutions in relation to nuclear weapons? Are treaties, laws and agreements coherent and consolidated as in a domestic legal setting?

One area where the model is deficient, however, is in capturing the full range of interactions by external actors, for example, the influence of great or hegemonic powers, or the interactions with other organisations such as NATO, or with civil society organisations and NGOs such as the ICRC and ICAN.¹⁵ Another area in which interactions between institutions could be assessed is that of the level of information flows (Wæver, 1992: 109).

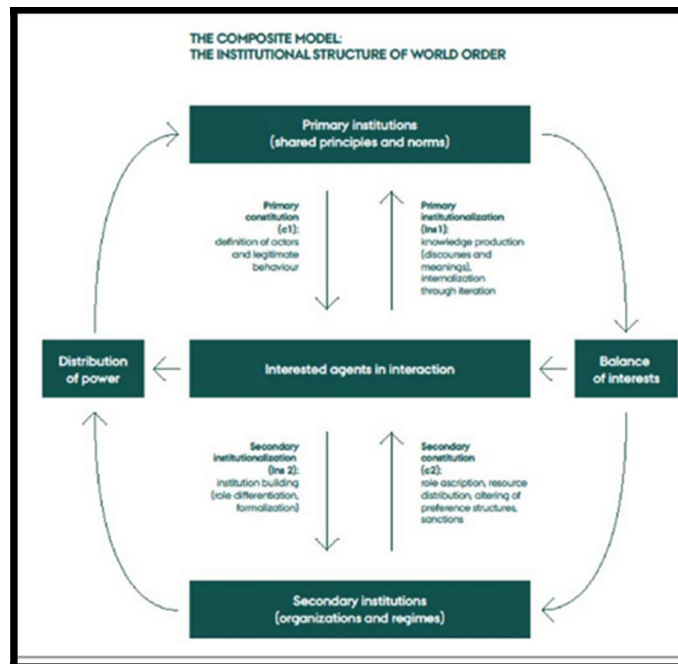


Illustration 7: Cornelia Navari: Composite Model of World Order (2020: 262)

¹⁵ ICAN is a global civil society coalition which won the Nobel Peace Prize in 2017 for its work in highlighting the humanitarian consequences of nuclear weapons and lead to the formation of The Prohibition of Nuclear Weapons Treaty adopted by the UN in 2017.

Cornelia Navari considered a range of models which seek to illustrate the nature of the interactions between primary and secondary institutions. The first based on Kal Holsti's *Taming the Sovereigns* (2004) highlights the difference between constitutive and regulative institutions. Second, Barry Buzan's *From International to World Society* (FIWS) (2004) concept of nested (master and derivative) institutions. Third, Tonny Brems Knudsen (2019) proposition of an 'reticular relationship' between fundamental institutions and international organizations. Finally, Kilian Spandler (2015) who introduced a 'practice level' between primary institutions and international organisations reflecting the role of agents. Navari then constructed a 'composite model' illustrating how institutional structure interacts with world order. Navari's composite model (above) is recognisable in the INWO, though the distribution of power and the impact of 'interested agents' may be overstated in the model. That said, in the context of sources of 'ideas, values and norms', there is clearly the 'potential for agency' (Schmidt and Williams, 2023: 11).

Reus-Smit has suggested a hierarchical model of constitutional structures, which he has defined as 'coherent ensembles of intersubjective beliefs, principles and norms that perform two functions in ordering international societies: they define what constitutes a legitimate actor...and they define the basic parameters of rightful state action' (1997:566). And on this he builds fundamental institutions and Issue specific regimes so that: Constitutional structures 'comprise constitutive values that define legitimate statehood and rightful state action; fundamental institutions which 'contain the basic rules of practice that structure how states solve cooperation problems'; and issue specific regimes which 'enact basic institutional practices in particular realms of interstate relations' (Reus-Smit, 1997: 558).

Reus-Smit's approach appears more vertical and interested in inter-state relations (in which respect it is similar to Holsti's foundational, procedural and international organisation and laws model (Navari, 2019:58). Stokke, by contrast, is more horizontal in seeking to explain inter-organisation relations, but both are significant in the nuclear order. The difficulty of the Reus-Smit approach is in assigning organisations and institutions to each category. Issue-specific would be the easiest and would be the IAEA, but from there, fundamental institutions would seem to overlap more with primary institutions of diplomacy and international law than specific secondary institutions. This would mean that the constitutional structures bring us back more to the norms, rules, principles and values of the order. This can be resolved by seeing Reus-Smit's constitutional structures as two sides of the same coin.

Another way of perhaps bridging the gap between Stokke and Reus-Smit is to return to the distinction of primary institutions being constitutive and secondary institutions being regulative (Dunne, 1998 and Holsti, 2004). This has the advantage of being a more intuitive taxonomy to apply across institutions; however, as Spandler and Hurrell point out, it does not fully capture the 'constitutive character of specific rules' (Spandler, 2014:608). In short, being a member of the NPT regime can, in and of itself, 'be a site of interest and identity formation' (Adler,1997:345) and 'connects them to the idea of primary and secondary institutions in order to arrive at an original ontologically coherent model of institutional dynamics' (Spandler, 2014: 610).

The point being that secondary institutions are vital locations where practice can affirm, amend or reject the established primary institutional constellation of constitutive values and regulatory expectations (Knudsen, 2022). There is therefore a feedback loop between primary and secondary institutions whereby what happens in one impacts the other. Hence, if GPM in the INWO is weakened in terms for instance, of a loss of legitimacy, then this can have a direct impact on secondary institutions such as the NPT RevCon. This could explain why the NPT RevCon has failed to reach an agreement since 2010 and the growing support for the TPNW.

We have already identified specific tests for the existence of primary institutions: i) the practice of most states, most of the time; (ii) reasonable consensus on interpretation of norms; (iii) that they operate independent of particular states (Holsti, 2004) and (iv) they give rise to the formation of specific secondary institutions (Falkner and Buzan, 2019). Holsti sets out additional tests for the existence of institutions: 'We can say that international law has become institutionalised when, first, practice by most states, most of the time is consistent with its norms and rules; second, there is a reasonable consensus on the interpretation of norms, rules and rights, and, third, when the law has some authority independent of particular states at a given time' (2004:144-145).

What all models stress is the importance of interactions between states, primary institutions and international organisations. This process helps shape institutions and in turn states and organisations are shaped through these interactions (Buzan, 2004: 162). This is important, because the claim here is that the INWO is unique in the global order but that does not mean it is detached from it. Moreover, it can be proposed that the interactions within the INWO shape and are shaped by the global order of international society. For example, if there is a strong shared interest in nuclear non-proliferation, it would be expected that this would filter through to other reactions within international society. Correspondingly, if, as Graham Allison has suggested, there is a growing cynicism

about the NPT amongst non-nuclear weapons states who see it as an ‘instrument for the haves to deny the have nots’ (2010: 80), then this may erode legitimacy of great powers and influence behaviours in other orders too. At the core of notions of interactions is the assumption that evidence of social interaction is evidence of the existence of international society, and in turn, the evidence of international society is evidence of order. As Charlotta Friedner Parrat puts it succinctly, ‘order is present when there is (any) international society, and that when there is no international society, there is no order’ (2024: 452).

3.6. Existing models for the International Nuclear Order

3.6.1. William Walker

Let me now turn to existing definitions and models of the INWO. William Walker has provided the most frequently cited and widely accepted definition of the international nuclear order:

Given the existence of nuclear technology, the international nuclear order entails evolving patterns of thought and activity that serve primary goals of world survival, war avoidance and economic development; and the quest for a tolerable accommodation of pronounced differences in capabilities, practices, rights and obligations of states (Walker, 2012: 12)

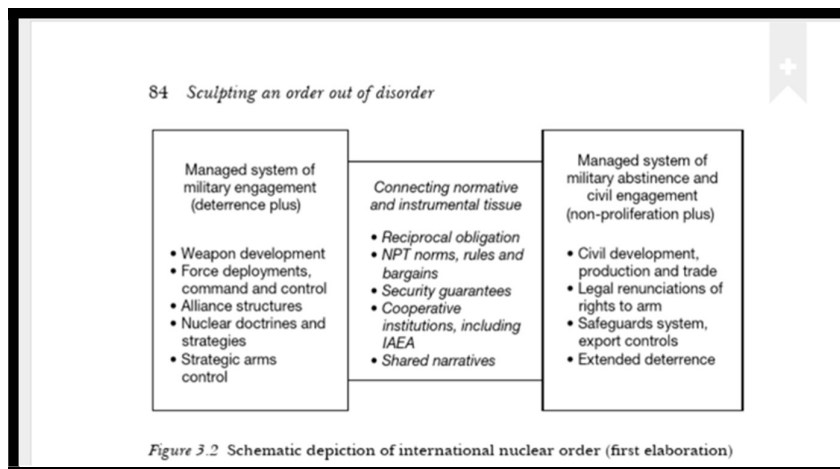


Illustration 8: William Walker’s schematic of the international nuclear order (2012: 84)

Several models of the nuclear order are presented in the literature. The most frequently referenced is that used by Walker (Illustration 7), who depicted two linked systems: a managed system of military engagement, which he described as deterrence plus, and a managed system of military abstinence and civil engagement, which he described as non-proliferation plus. Between these two managed systems lies a normative and instrumental connecting tissue, most notably the institutions of the NPT and the IAEA, as well as the

practice of security guarantees (Walker, 2012: 84). This model has been criticised for the absence of a third system of 'policing and enforcement' (Schulte, 2007: 506). However, this could be accounted for by the 'connecting normative and instrumental tissue' which includes the IAEA. I would contend that the model (Walker 2012: 84) works well for describing the provisions of the NPT, but perhaps doesn't capture fully the proliferation of agreements, institutions, rules and norms that have developed since then. In fairness, in the context of the chapter in which it appears, it illustrates the argument perfectly and concisely. However, the argument being discussed in this chapter is not one of 'Sculpting an order out of disorder' but rather seeking to make the case that the international nuclear order has evolved in a particular way to solve a unique set of co-ordination problems caused by the existence of nuclear weapons.

Nicola Horsburgh (2015) proposes a model based on Walker's two systems/three logics to argue that the nuclear order is based on four core elements: nuclear deterrence, arms control, non-proliferation, and disarmament. This comes close to the empirical findings and conclusions of my own research, but my criticism is that this could overstate the role of arms control, disarmament and deterrence and understate the role of non-proliferation.

Jeffrey Knopf has described the nuclear order as comprising of 'three strands' which he identifies as 'strategic stability, the nuclear taboo, and non-proliferation (as supplemented by measures to ensure nuclear security)' (2022: 187). Again, this is closer to my own findings, but I would be more hesitant of placing such a high emphasis on the 'nuclear taboo' especially given that we now know that the use of nuclear weapons has been actively considered on many occasions since 1945.¹⁶

3.6.2.. *Michal Smetana*

A further model for exploring the international nuclear order has been developed by Michael Smetana (2020: 100) (Illustration 8 below). In this model he first seeks to place the global nuclear order within the context of wider international order and then places the NPT regime as the core of the global nuclear order. This model is situated within the context of developing an argument based on Antje Wiener's vertical typology of norms in the international order (2014).

¹⁶ Berlin Blockade (US, 1946); Korean War (US, 1953); Second Taiwan States crisis (US, 1958); Cuban Missile Crisis (US&SU 1962); Vietnam War (US, 1969); 'Able Archer' (SU, 1983); Kargil War (India/Pakistan, 1999); North Korea (DPRK, 2013-); Ukraine (Russia, 2023-)

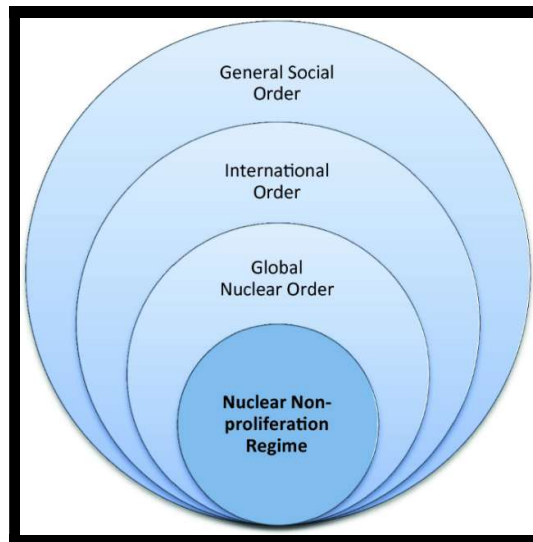


Illustration 9. The nested nuclear order, Michal Smetana (2020: 100)

One aspect which is particularly helpful about Smetana’s approach is to nest the nuclear non-proliferation regime and the global nuclear order within the wider international order and general social order. Sara Kutchesfahani told me “When I wrote the book [Global Nuclear Order, (2019)] it was saying we cannot separate nuclear politics or nuclear order from the international order” (Interview: 21 July 2023). This was a frequent response. Dr Hassan Elbahtimy told me “The international nuclear order cannot be viewed in isolation from the wider global order. It is therefore interconnected just as say the climate change order” (Interview: 1 August 2023).

3.6..3. Ashok Kapur

A dissenting voice in the literature is Ashok Kapur, who has said, ‘The international nuclear order is more imagination and rhetoric than reality’ (1996: 420). ‘Such terms as world order and nuclear order are widely used as political slogans and have been embraced by North American scholars without subjecting them to strict academic scrutiny’ (1996: 420).

Although Kapur’s approach is not illustrated as a model graphically, it is included here as it seeks to provide a non-Western perspective on the nuclear weapons order, in this case from India. Horsburgh notes, ‘Beyond Western analysis, there has been little academic interest in defining nuclear order, but it has nonetheless become a popular term to represent the many features of global nuclear politics’ (2015: 8).

For Kapur, order was shorthand for ‘manageable instability’ from which he then went on to describe ‘a fractured combination of six different ‘nuclear worlds,’ each with a self-

contained and self-serving set of beliefs and interests that reflect those of its dominant members': First, the five 'legitimate' nuclear weapons states under the NPT; Second, the 'illegitimate' nuclear weapons states outside the NPT; Third, the nuclear non-proliferation regime, e.g. NPT and IAEA; Fourth, a world of selective proliferation and selective non-proliferation controlled by the dominant nuclear powers; Fifth, the world of nuclear arms reductions chiefly U.S./Russia (Soviet Union) and sixth, a world of illegal nuclear trade both by rogue state and non-state actors (terrorism) (1997: 425-434). Kapur points out that each world is an important international subculture; no single nuclear world is dominant (1997: 422).

Whilst Kapur's view is a valuable test, it is not something which fits with the findings of this research for several reasons: First, I do not think that it is accurate fair to say that the order is more rhetoric than reality as my argument is that the INWO is remarkably orderly in many respects e.g. reductions in warheads, reduction of tests and limiting of proliferation, especially to non-state actors. Second, it is not accurate to say that the terms nuclear or world order have not been subjected to academic scrutiny outside North America. Hedley Bull, Andrew Hurrell, Nick Ritchie, Michal Smetana, Harald Müller, Benoît Pelopidas, Kjølvi Egeland and William Walker have done extensive work on this—it would however be fair to point to the overwhelming dominance of Western scholars.

Finally, in terms of the fractured nuclear worlds argument, I argue that there is a pre-eminent role for the United States in the INWO and that role depends upon support from Russia, hence I would depart from Kapur in arguing that 'no single nuclear world is dominant. That said, being conscious of my own positionality in the research I must accept that this could well be how the order may appear from a non-P-5, non-NPT perspective, which is why it is included.

3.6.4. *Shampa Biswas*

A broader approach to describe the international nuclear order was adopted by Professor Biswas in her book *Nuclear Desire* (2014: 37) (see illustration 9 above). The distinctive feature of this model is the inclusion in the tripartite structure of Think Tanks/NGOs, pointing to the important role played by civil society organisations (CSOs) in the international nuclear order. This segment is further subdivided into: Information tracking, advocacy and watchdogs, research and consulting, epistemic communities, and university centres. That said, "Global nuclear politics continues to be played out by sovereign states" (Egeland, 2021: 212).

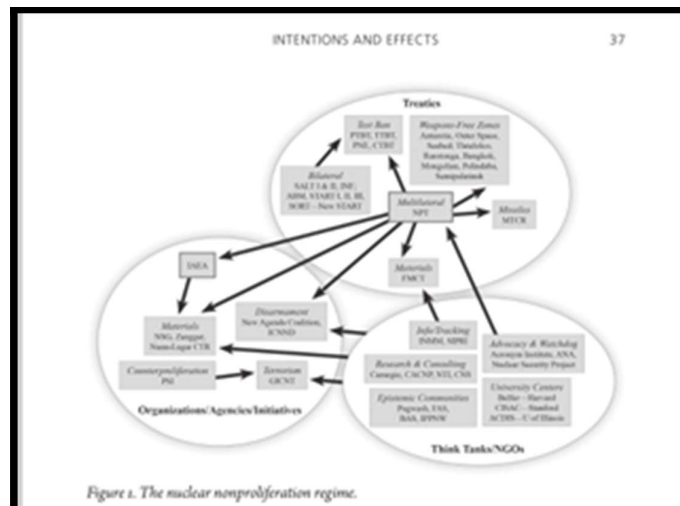


Illustration 10. Shampa Biswas' nuclear non-proliferation regime (2014: 37)

Professor Biswas told me:

There were civil society forces that were able to bring pressure on states, but I don't think you can simply wish the state away....I mean the state is here to stay. You have to be able to work with and against the state. (Interview: 21 August 2023)

The issue here is that CSOs are a significant part of the global order. However, as the research will go on to point out they are heavily weighted towards Western countries, especially the U.S., U.K. and Austria, Australia (and Japan). Yet, their influence is more often directed through the nation state, and in some cases, in cooperation, from a funding perspective, with that nation state. I have also argued that the INWO is an inter-nation-state order rather than a global order. For these reasons, I have chosen to exclude CSOs as a group from the purview of this analysis of the INWO.

3.7. A new model of the INWO?

The proposed model (Illustration 10) of the international nuclear order based on interviews is that the broadest support of the INWO is not to be found in disarmament but in non-proliferation. It is non-proliferation which has been the unifying *raison de système*. This agreement is even stronger when it concerns controls to stop nuclear materials falling into the hands of non-state actors.

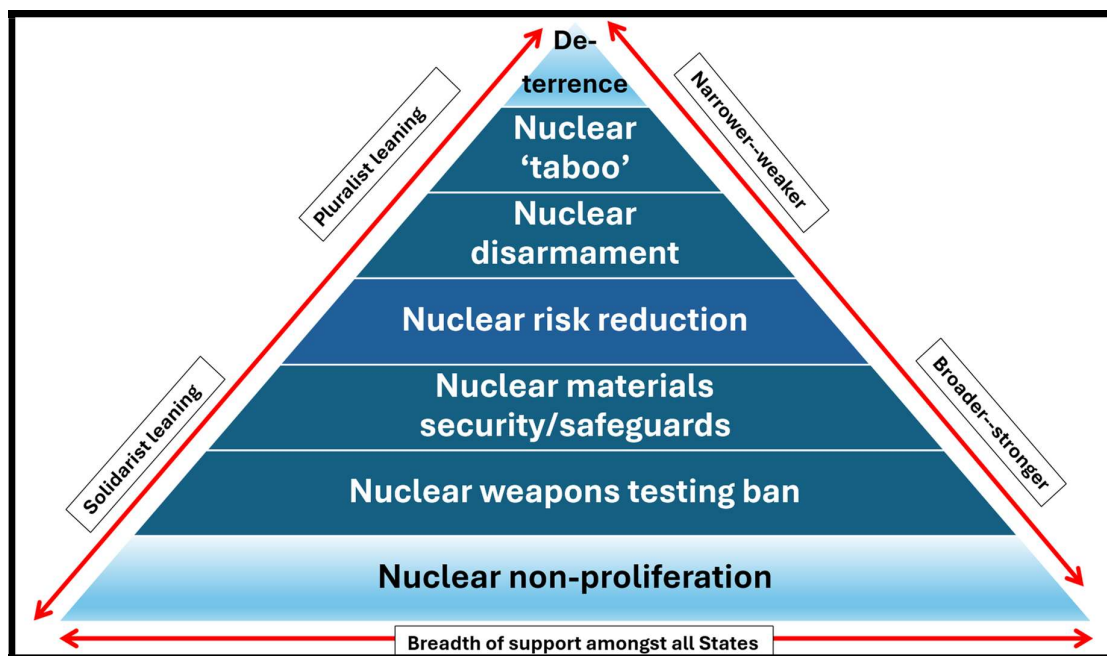


Illustration 11. A new model for the INWO

In this chapter, I argue that the common ground of all members of the order is not disarmament but non-proliferation, especially to non-state actors. Very few states/if any, publicly welcomed the proliferation of nuclear weapons to Pakistan, North Korea or would do so for Iran. This is because in the INWO, if any one country becomes an NWS, then it dilutes the advantage of existing NWS in the system, further highlighting the disadvantage of NNWS. Disarmament, on the other hand, dilutes the advantage of NWS but also reduces the disadvantage of NNWS.

International society is based on mutual recognition and non-intervention in sovereign states as the basic building block of the international order. However, NWS and NNWS are (often privately) willing to tolerate international efforts to enforce non-proliferation norms even in cases where such action may undermine sovereignty and the principle of non-intervention (Article 2.4 of the UN Charter). My research found significantly more substantial support for non-proliferation efforts than for disarmament among state official respondents, whether they were NWS or NNWS. It was the one thing on which they could all agree. By contrast, disarmament was not something on which all states agreed, which leaves NWS being labelled with accusations of hypocrisy by NNWS.

3.7.1. Limitations of the INWO Model

The proposed new model of the INWO helps explain why the INWO is more robust and more rational than hitherto claimed, because it is founded on a *raison de systeme* and common interest of states of horizontal nuclear non-proliferation. The INWO model is, however, less effective in demonstrating how the INWO fits first of all into the wider nuclear order. Here, William Walker (2012: 84), with his model of two managed systems of military engagement (weapons) and military abstinence (civilian uses) is more helpful, not because of the division as such but because of his addition of a 'connecting tissue' of reciprocal obligations, norms, bargains, guarantees and shared narratives. This socialisation of the order is helpful. In my new model, I have sought to reflect this by adding reference to pluralist and solidarist dimensions at different levels of activity. However, this is to venture without further illumination, into the 'great conversation' within the ES (Wheeler, 1992; Dunne and Wheeler, 1996; Bain, 2010 and Buzan, 2004), between order and justice, where pluralism was more state-centric and solidarism was more transcending national boundaries. The new model proposed here could be deficient both in understanding the significant areas of overlap between the INWO and the wider global nuclear order.

A further limitation of the proposed new model in relation to the approach of Michal Smetana (2020: 100) is that it does not nest the INWO in the wider international order, the general social order. Both models have limitations. Smetana's model has the limitation that it could suggest that the INWO and the institutions and norms are indistinguishable from the wider order. In the proposed INWO model, it could be taken that there are no connections. Both would be wrong. The purpose of narrowing the focus to the INWO is to draw out features of the INWO which are so distinctive that they cause some of the underlying primary institutions to be applied in unique ways and for the roles and responsibilities of the United States and Russian Federation to be understood and applied differently than in the wider global order.

A final limitation would be that the new INWO underplays/underexplores the significant role of civil society in the INWO. Shampa Biswas (2014: 37) sees an order that comprises treaties/organisations and civil society (think tanks and NGOs). Whilst the INWO is consistent with the Biswas model in seeking to describe a 'nuclear non-proliferation regime', the focus in the new INWO model sets aside the role of non-state actors as nuclear weapons are the territory of states and inter-state relations. Yet, the Treaty on the Prohibition of Nuclear Weapons, for example, owes significantly to the long-running efforts and organisation of International Campaign to Abolish Nuclear Weapons (ICAN),

for which they were awarded the Nobel Peace Prize (2017). There is a discussion about the sources of information in the INWO, particularly regarding the overwhelming Western orientation of proponents and opponents of civil society organisations. The impact of this on the broader international debate on nuclear weapons is underexplored, but it is a significant factor. They were also an invaluable source for the research interviews and material. Below is a table of the most frequently cited and referenced international civil society organisations found in the course of the research.

Campaigners	Think Tanks	Researchers
ICAN (Australia)	Nuclear Threat Initiative (US)	SIPRI (Sweden)
ICRC (Swiss)	PRIF (Germany)	Institute of Nuclear Materials Management (US)
Mayors for Peace (Japan)	BASIC (UK)	VERTIC (UK)
Global Zero (US)	Federation of American Scientists (US)	Arms Control Association (US)
Acronym Institute (UK)	Vienna Centre for Non-proliferation and Disarmament (VCNPD)	RAND (US)
Campaign for Nuclear Disarmament (CND) (UK)	European Leadership Network (UK)	James Martin Centre for Non-proliferation Studies (US)
Reaching Critical Will (US)	Managing the Atom, Belfer Centre (US)	Ploughshares Fund (US)
Pugwash Conferences (Canada)	Chatham House (UK)	Carnegie Endowment/Corporation (US)
International Physicians for the Prevention of Nuclear War (IPPNW) (US)	World Institute for Nuclear Security (Austria)	
International Peace Bureau (Germany)	Peace Research Centre (Prague, CZ)	
Greenpeace (Canada)	Centre for Arms Control and Non-proliferation (US)	
Open Nuclear Network (ONN) (US)	Middle Powers Institute (US)	
NoFirstUse Global Coalition (Prague, CZ)	Asia-Pacific Leadership Network (South Korea)	
Basel Peace Office (Swiss)	RUSI (UK)	

Table 3. Most frequently mentioned civil society groups during the course of research (**Bold** organisations interviewed in the course of the research)

3.8. Conclusion

The purpose of this chapter has been to set the context and agenda for the research of the international nuclear order, which is to follow. It has three important functions: First, to justify the choice of the English school of international relations and the theoretical framework; second, to explore key concepts and debates within the English school and how they relate to the international nuclear weapons order; and finally, to identify the

gaps in the current literature which this research will aim to address. Looking at these three areas in turn:

There are significant benefits of using the ES as the theoretical framework of the research. The first is Martin Wight's identification of a *via media* between realism and revolutionism, namely *rationalism* (1991). Second, it allows us an alternative area to discuss the nuclear order outside of realism, though it leans to the security-seeking /defensive and conservative/pluralist segments of Buzan's model (Fig 1, 2004: 475). Third, ES also adopts an approach of historic pragmatism (Butterfield and Wight, 2019:53), which is important for understanding the evolution of the international nuclear weapons order through a series of historically contingent events and initiatives and scientific developments. Fourth, the ES postulates the existence of certain universal values life/truth/property (Bull, 1975:5) to which we have added 'membership' (Jackson, 1992:271) and 'authoritative communication' (Buzan,2006: 93) as core universal values of international society and the international nuclear order within it. Fifth, we pointed to the fact that within rationalism there was a close interest in the interplay between the three traditions (Williams, 2005:21) and this interaction and its intensity between institutions and traditions and their associated political and security condition will be a significant part of the research. This is because it is precisely the intensity of the social interaction of states which results in society (Suganami, 2017: 24) and determines its social viscosity.

The point is that we cannot hope to understand the international nuclear order without closely understanding its elements and those external to it. Sixth, we consider that the ES perspective of international society was both an inter-state and inter-human and purpose-driven society which promotes certain goals and values (Bull, 1977:3-4). It seeks to solve co-ordination and coexistence problems which arise from the sovereign independence of nation states which comprise the society (Hurrell, 2003:26). Seventh, the ES postulates that in addition to universal values and goals, the society or international nuclear order is comprised of certain primary institutions, being sovereignty, great power management, balance of power, diplomacy, international law and war which give rise to the secondary institutions of the order (Buzan, 2004:184). Eighth, these institutions were themselves accumulations of norms, rules, principles and laws (Krasner, 1983:2), and from this, we can seek to identify certain 'social facts' (Durkheim, 1895/1982:1) from which we can trace both the emergence of institutions and observe their interaction. Ninth, the ES encompassed both normative and empirical sources of social interaction, providing a spectrum of pluralism and solidarism through which to

observe the degrees of order and justice. Moreover, that justice was a 'moral' test and that nuclear weapons, the use of and the threat of use of, are inescapably bound up in moral questions which the founders of the ES, especially Butterfield, Wight, Bull and Vincent, were willing to engage with. Finally, except for Hedley Bull, there has only been a sparse exploration of the international nuclear order from an ES perspective, which represents both a challenge and an opportunity for this research.

Turning to the key debates within the ES as they apply to the international nuclear weapons order. First, primary institutions. Parrat described the 'basic wager' of the ES as being that it was primary rather than secondary institutions which maintained order in the international society (Parrat, 2017: 623). This is contested, but for this research, it is accepted (see Illustration 5 above). We explored a wide range of suggestions for extending the list of [primary] institutions beyond the classical list proposed by Bull (1977:70-71). Most persuasively by Buzan in FIWS, (2004) where the case is made for derivative and master institutions and for adding in new institutions reflecting the changing nature of society such as environmental stewardship (Falkner and Buzan, 2019), or, by Smetana (2020) for new primary institutions specifically for the international nuclear order, but these claims have been rejected for two main reasons:

First, that the foundational scholar and text is Hedley Bull and TAS (1977) and his case for institutions which has been chosen as a benchmark for the research. Second, one of the areas we want to explore is in what ways the international nuclear order may differ from other similar orders, such as those governing chemical and biological weapons; we therefore need a consistent set of institutions. The most significant difference is between pluralism being about 'order' and solidarism being about 'justice' (Buzan, 2014:85). In this case we have made the argument, following Buzan (2004) and Williams (2011) that pluralism is not devoid of ethical concerns and solidarism accepts the sovereignty of the nation state, and is not unconcerned about issues of order.

Chapter 4—Method Statement

1. Ontology and epistemology

1.1. Social Facts. The starting point for introducing the ontological approach is to connect two terms: the interpretivist methodological assumption and the status of social facts in the context of discourse analysis. It is taken here that social facts and discourse analysis are connected through their shared assumptions of the importance of language, meaning in the construction of a given reality. Social facts to be socially constructed realities that are developed through discourse to become intersubjective understandings. They exist in the minds of people who act according to their understanding of them. This then connects with ES concepts of international society as C.A.W. Manning proposed international society as an intersubjective agreement amongst statesmen to engage in the game of 'let's-play-states' (1962: 165 cited in Buzan, 2005: 189). Richard Little further observes, 'international society presupposes that there is an intersubjective understanding amongst statesmen' (2000: 408). It is therefore fascination of the ES and this research as to how these shared meanings emerge through discourse and their role in shaping and being shaped by primary and secondary institutions. Nasrin Pervin and Mahani Mokhtar have summarised this approach as:

The notions of subjectivity and Interpretivist complementary each other because a researcher who uses an interpretivist approach must be interested in the subjective meanings of the participants because this gives an understating to other people and the world they live in. (2022: 424).

Emmanuel Adler has made an argument (in response to Barry Buzan's *FIWS*, 2004) for these intersubjective understandings to be sources not only of internalisation of norms in the minds of individuals but also of the institutionalisation and diffusion of intersubjective knowledge across national and societal borders diffusion of intersubjective knowledge across national and societal borders' (Adler, 2005: 176). This is problematic as the interpretivist approach can emphasise the subjective over the objective. Moreover, the researcher brings their own subjectivity to the pursuit of the intersubjective understanding, as such the researcher 'intervenes, in or, creates observed social realities through their own role and knowledge' (Lamont, 2015:20). In short, we tend to see the world not as it is but rather as we are.

1.2. Discourse analysis can provide a helpful tool to counter this 'subjectivity' of the researcher. It takes the view that language/ discourse is in itself a social practice 'through which meanings, identities and realities are socially constructed and negotiated' (Potter, Wetherall et al., 2008: 207). Ivor B. Neumann states that discourse analysis:

produces preconditions for action. It constrains how the stuff that the world consists of is ordered, and so how people categorize and think about the world. It constrains what is thought of at all, what is thought of as possible, and what is thought of as the 'natural thing' to do in a given situation (2008: 62)

This demonstrates the power of discourse to frame the normative debate. Mehan et al. argue that 'the relation between voices in public political discourse takes the form of a conversation' (1990: 135). Norman Fairclough goes on to give a pertinent example of this 'conversation' leading to shifts in how people think about the world: When the Reagan Administration announced its Star Wars¹ programme in the 1980s, it was presented as a 'war-winning' technology. This then provoked a response from the National Council of Catholic Bishops, who published a sixty-four-page 'Pastoral Letter' which successfully shifted the debate from a technical one to a moral one (Fairclough, 1992: 206). We can see how language is used/misused in the nuclear debate. When a nuclear weapons state is seeking to justify its own weapons programme, it is termed a 'minimum independent nuclear deterrent', but in the hands of others, they may become 'Weapons of Mass Destruction which threaten our survival'. How concepts of such as the 'nuclear taboo' (Tannenwald, 2007) and 'nuclear apartheid' (Maddock, 2010) enter the INWO lexicon and are ascribed intersubjective understandings and meanings. As Roger Epp put it, the commitment to theory in dialogical form is to 'reinforce the centrality of language in any account of international relations' (1998: 55).

2. *What are ES methods?*

This research draws on the theoretical argument of the ES that order is maintained in its international setting not only through organisations or agreements, but also through the prior existence of certain primary institutions arising from universal values. These primary institutions are an 'arrangement of social life that promotes specific goals and values' (Bull, 1977:3). It is, therefore, appropriate to explore at this stage the range of research methods which have been attributed to that school of thought. This is not an easy task.

Martha Finnemore said of the ES that 'simply figuring out what its methods are is a challenge' (2001:509). Cornelia Navari added, 'English school methods may seem like a contradiction in terms. The classical English School theorists generally disdained discussions of methodology' (2009: 1). Holsti accused the ES of a 'methodological naïveté' (2009: 126). Martha Finnemore puts this methodological ambiguity down to ES scholars finding 'some American treatments of methods excessive, even obsessive, and

¹ Actually called the Strategic Defence Initiative (SDI) but nicknamed 'Star Wars' because the system would be based in space.

that there is justifiable suspicion about scholarship in which method triumphs over intellectual substance' (2001: 510).

If we were to embark on a brief exploration of ES methods, then the place to start would probably be the 'classical approach' to the theory of international relations presented by Hedley Bull in 1966. This paper was a contribution to the so-called 'second great debate' of international relations between those taking a scientific approach to international relations and a more historicist/interpretivist approach in which theorising:

derives from philosophy, history, and law, and that is characterised above all by explicit reliance upon the exercise of judgement'. It also claimed that 'if we confine ourselves to strict standards of verification and proof, then there is very little of significance that can be said about international relations (Bull, 1966: 361).

This leads towards an 'interpretive approach' because 'scholars identified with the English School were sceptical of the possibility of scientific study of International Relations' (Dunne, 1998: 7). The ES objective was 'ontological theorising' (Guzzini, 2013: 514), a 'relentless questioning of what is' (Friedner Parrat, 2023: 225). Yet the early ES wrestled with accusations of lacking rigour and precision, particularly in its definitions. Even in the case of PIs Peter Wilson points out that there is little agreement on what the PIs are, let alone what they mean, with one list of PIs having as few as three and another as many as twenty-six (Wilson, 2012: 568). In other places, PIs are master/derivative (Buzan, 2004), foundational (Holsti, 2004), bedrock (Mayall, 2000), and functional (Donnelly, 2006). Probably the most important PI is balance of power, and yet Mayall claimed it was presented in 'such convenient plasticity that it could be advanced to cover almost any conceivable policy' (Mayall, 2000: 12). That said, later Mayall argued that the ES is at its best when it wears its 'methodology lightly' (Mayall, 2009).

To address these problems, Wilson proposed a grounded theory to deal with the ES methodological weakness, one in which we 'empirically determine not only the identity [of PIs] but how we should conceive them' (Wilson, 2012: 568). In this, Wilson argues that the ES and grounded theory have the same starting point 'a shared epistemology of empiricism' (2012:584). Yet this is contested in favour of a more 'methodologically eclectic' approach (Reus Smit, 2002: 498). Richard Little argues there is a need for an eclectic rather than an exclusive approach: 'international societies and international systems...rest on very different ontological assumptions, and consequently they need to be examined by very different methodologies' (2000: 408).

Richard Little refers to a spectrum of methodological tools, ranging from positivist to interpretive and critical assumptions (Little, 2000: 398). International system,

international society and world society each have their preferred method of analysis: cost-benefit for the international system; institutional and comparative analysis for the international society and a normative argument for the world society (Navari, 2014: 207). Little is making these suggestions was addressing the 'broad parameters' of the ES approach (2000: 395). We are looking at a narrow segment of that international society, the international nuclear order, and within that, the specific nuclear weapons order, and we might therefore consider institutional and comparative methods (ibid.). Little further seeks to make the case for 'interpretivist and hermeneutic' methods (2000: 395).

However, for this analysis it is held that interpretivism will suffice, focusing as it does the social phenomena of participant and institutional interactions and intersubjective understandings. It is precisely this intersubjectivity, meaning and historical interpretation in the INWO which is the puzzle this research seeks to explore. This flexible approach would seem consistent with Reus Smit's belief that the attraction of ES approach is because it aimed to be a 'method of inquiry, not a theory of explanation' (2002: 499)

The next question is what methods would be available to the ES to 'inquire' into the international nuclear weapons order? One of the challenges is that the 'PIs may exist in the mind, whereas the organisations may be observed in fact'. Hence, the research is looking at an organisation such as the International Atomic Energy Agency (IAEA), which has a constitution, remit, members and published regular reports on its proceedings which may be different in its construction to the doctrine of Mutually Assured Destruction (MAD) but no less real in the minds of its members.

By contrast, it may be more of a challenge to use empirical means to determine say great power management where such PIs *exist* 'only because we believe them to exist' (Searle, 1995:1). Suginami cites C.A.W. Manning (1975) who claimed that 'institutions exist in the sense that they are commonly believed to exist.....which is categorically different from saying they really do' (1999, 378). This does not mean that institutions are not tangible, as the ES holds that 'beliefs' become 'social facts'. Emile Durkheim's called 'social facts as things' akin to natural phenomena (Hollis 1994: 99). Social facts therefore become binding forces thickening the social bonds of institutions (Schouenbourg,2012).

This then lends itself to the 'the interpretivist 'proposition' that 'the social world must be understood from within' in the terms in which it is comprehended by those that inhabit it, 'rather than explained from without' (Hollis 2002: 16). For Cornelia Navari in response to the question of which were most important structures or agents (Archer, 1982) she proposed that the ES was 'ontologically neutral as to whether structures are soft and

ideational or hard and material' (Navari, 2020: 467). This is consistent with what Richard Little termed as the 'methodological and ontological pluralism' of the ES approach (2000: 414). There is, however, a tension here between this 'ontological pluralism' and ES's concept of historical interpretivism and discourse analysis, which has its roots in a wider debate between positivist and post-positivist approaches, between modernism and interpretivism, the so-called 'fourth debate' in IR (Bevir and Hall, 2020: 162).

From a positivist perspective, social facts are objective entities that can be measured; however, interpretivism is more grounded in constructivist assumptions. It implicitly acknowledges that whilst there may be claims for ES 'ontological neutrality' it seldom is. Differing historical interpretations and intersubjective understandings move us in the interpretivist direction and interpretivist type questions: what participants thought they were doing and what outcomes they thought would be achieved. This is especially relevant for helping to understand why interpretations of the effectiveness of the Prague Agenda and P-5 process vary so widely in the literature. Interpretivism seeks to understand from the participants perspectives. This in turn feeds into the chosen approach of semi-structured interviews with key actors in both case studies.

This debate passed, and in 2023, Charlotta Friedner Parrat published a paper titled *Interpretivists in the English School: Aren't We All?*. This is important because, in undertaking interpretive analysis, we are not simply choosing a method but accepting that the method comes with certain inbuilt theoretical assumptions.

Interviews and reading speeches can then be a useful interpretivist tool for understanding beliefs, 'the way practitioners speak has been seen as a vital window into the way in which they think' (Wilson, 2012: 584). This is important for this analysis because of the focus on speeches by Barack Obama in respect of the Prague Agenda and Des Browne and Margaret Beckett in respect of the P-5 process.

We should also note that 'The English school was established by scholars from different disciplines, including law, philosophy, and theology. Historians, however, predominated (Dunne 1999; Hall 2012; Hall 2019)' (Bevir and Hall, 2020:3). It is also the case that the English school may be said to represent a 'pragmatic historicism' based in understanding certain facts with the aim, in the approach of Martin Wight, of freeing the researcher from the 'self-importance and self-pity that underly the belief of each generation that its own problems are unique' (Bull, 1976: 112-113). For Wight 'historical facts do not exist

independently of historians – they are made, not found; and depend on prior knowledge acquired by socialisation about what constitutes them’ (Bevir and Hall, 2020: 9).²

The examination of the evolution of the INO, as can be seen from the previous chapter, is essentially one of tracing historical events. It is therefore believed that the ES approach of pragmatic historicism which recognises a continuous interdependence between subject (scholar) and object (world) (Dunne, 1998: 7) and ‘driven by the inter-play between the theory and practice in the system’ (Dunne, 2003:306) will yield the most significant insights for the research.

3. Research design

3.1. Research Questions

The objective of this research is to answer three research questions, which represent gaps in the current literature:

- i. How is the English School concept of order in international society maintained in a world with nuclear weapons?**
- ii. Is the International Nuclear Weapons Order (INWO) unique?**
- iii. How do English School concepts of primary and secondary institutions contribute to the maintenance of order in the INWO?**

The research questions that this analysis seeks to answer are divided into two groups:

First, defining and arguing for a distinctive taxonomy of the institutions, treaties, dialogues, civil society and norms which constitute the international nuclear order. Then, exploring its ‘baffling complexity’ (Walker, 2012: 25), it will seek to understand why it has evolved in such a complex and unique way. How do the various pieces of the INO interact with each other? What is the connecting tissue? Where are the tensions? How does decision-making in the NPT, IAEA and Conference on Disarmament impact the shape of the INWO?

The international nuclear order comprises three purposes: (a) arms control, (b) nuclear non-proliferation, and (c) civil nuclear power. This research is primarily focused on ‘non-proliferation’ as it is argued that it is this which holds the INWO together. It seeks to explore in detail how the five recognised Nuclear Weapons States (NWS) under the Nuclear Non-Proliferation Treaty (NPT) (the United States, Russia, China, the United Kingdom, and France) manage their relations regarding the first two purposes — nuclear

² See also Watson, J.A., 2013. *Hegemony & history*. Routledge, especially Chapter 13

arms control and non-proliferation. The reason for this decision is that the hypothesis applied here is that what makes the international nuclear order unique is not its peaceful uses but its military capabilities. Therefore, to get an accurate picture, it is necessary to remove peaceful uses from the equation and examine the weapons, hence the international nuclear *weapons* order (INWO).

This would be contested by many, if not most, scholars in the field, most notably William Walker, who has described the nuclear order as a 'managed system of deterrence and a managed system of civilian use with a connecting instrumental and normative tissue' (2012: 24). This description is however helpful in the respect that it foregrounds the role of 'management' in the order which 'implies strategic direction and international development' (2012: 24) which will be helpful in exploring great power management in the INWO. Others (Yost, 2007; Potter, 2010, Egeland, 2021, Perkovich, 2008) would point out with deductive reasoning that if the NPT is the cornerstone of the INO then the NPT combines both military and peaceful uses. Yet, here again, I am seeking to make the argument that though non-proliferation may be the cornerstone of the INO, that is not the same as saying the NPT is the entirety of the INWO. The NPT is an important part of the institutional architecture that holds the order together. Still, non-proliferation transcends the NPT as a goal and norm of the INWO and is underwritten by the PIs which capture the deeper social structures that enable the NPT to function. Ultimately, it is a choice based on a reading of the literature. Still, I believe that focusing in on the weapons and non-proliferation/nuclear security has helps to draw sharper conclusions.

4. Research methods

There are two broad approaches that can be used to undertake social research: the first is qualitative, and the other is quantitative, to which a via media of mixed methods can be added. The approach taken in this research is *qualitative*, but that does not mean there are no limitations in the choice, nor that there are no attractions in either quantitative or mixed-methods approaches.

4.1. mixed methods

In respect of *mixed methods* the use of triangulation models can be of value (Bryman, 2004: 455). Triangulation can be used both for data collection and data analysis. In short it 'requires the researcher to use a different methods tool to explore the same question' (Lamont, 2015:117). This could be of value when interviewing people about the antecedence of certain historical events such as *The Prague Agenda* or the formation of the *P-5 process*. By testing responses against archival research, or secondary sources it

is possible to corroborate recollections and thereby strengthen conclusions. Triangulation is, of course, an established practice of qualitative research as well as mixed methods, thereby the advantages can be achieved through the chosen approach.

In terms of the chosen qualitative approach there have been many examples of the use of the approach in examining the evolution of norms (shared understandings or standards of behaviour) in international society such as Audi Klotz's (2002) examination of norms reconstituting interests in international responses to apartheid in South Africa. This reflects another element of the use of the approach in that it is often historical (King, Keohane et al, 1994: 60)—as is the English school.

5.Data collection

5.1. Archival access

This stage of the research aimed to identify sources that may corroborate findings from interviews and help strengthen the questions posed, as well as test the answers received. It, therefore, precedes and succeeds the interview stage. There are some sources which proved to be particularly helpful: The Churchill Archives, Cambridge; The British Library; The National Archives, Kew; The UK Parliamentary Archives, Westminster; The Library of Congress Archives, Washington DC; The United Nations Archives and Records, New York; The United Nations Office for Disarmament Affairs Document Library, Geneva; The Archives of the IAEA, Vienna; The Obama Presidential Archives, Chicago. The value of archive materials to the research will be variable. The archival materials included primary sources such as original documents by individuals and secondary sources which may refer to primary sources for the purposes of analysis (Lamont, 2015:80). The archival stage will both precede and succeed the interview phases as a means of corroborating/triangulating the information gathered in the interviews.

5.2. Online archives and materials

This is not to suggest that archival sources are the only legitimate research resource for the purposes of this analysis: media and secondary sources of information also helped in providing insights into the development of particular events and specific web-sites such as: [The Arms Control Association](#); [The Nuclear Threat Initiative](#) (NTI); [The Federation of American Scientists](#); [BASIC](#);³ [The European Leadership Network](#) (ELN); [The James Martin Centre for Non-proliferation Studies](#); [The Vienna Centre for Disarmament and Non-](#)

³ British American Security Information Council (BASIC)

[proliferation](#) ; [ICAN](#);⁴ [SIPRI](#);⁵ [Pugwash](#); [Global Zero](#); [The Ploughshares Fund](#); [The Acronym Institute for Disarmament Diplomacy](#) and [The Open Nuclear Network](#). Care needs to be taken when using secondary sources as they can often have biases either in terms of their objectives or in terms of the funding they received (Egeland and Pelopidas, 2025).⁶ They represent, nonetheless, a rich resource which can be drawn upon.

Material provided by [Reaching Critical Will](#) (RCW) has been of particular importance, and there is a reason for this. RCW have been appointed by the United Nations Office of Disarmament Affairs (UNODA) as a coordinator of civil society engagement for the NPT Review Conferences and the Meetings of State Parties to the TPNW. RCW are part of the United States organisation, the Women's International League for Peace and Freedom. On their website under 'Disarmament Fora' are listed a wide range of meetings with the national statements and civil society contributions included. A similar rich repository of primary source material was found on the [American Presidency](#) website of the University of California, Santa Barbara.

5.3. Reliance on United States sources

The story of the INWO would be impossible to tell without the United States. The U.S. is by far the most open of all the NWS, both with government publications of data and the incredible amount of detail they disclose in reports to Congress on what it knows about the nuclear capabilities of other NWS. In addition, the rotation of senior officials in and out of government, industry, academia and think tanks creates a cadre of deep knowledge and expertise, which was invaluable for securing interviews. In addition, most of the leading civil society organisations and think tanks on nuclear strategy, non-proliferation and security are based in the United States.

For instance, virtually everything we know about the world's nuclear forces comes directly from or via the Federation of Atomic Scientists in Chicago and two remarkable researchers: Hans Kristensen and Matthew Korda. Most NWS do not publish their force structure: India, Pakistan, Israel, North Korea, and China never have. The UK and France have become more opaque in recent years (since 2019) adopting a policy of strategic ambiguity and not publishing stockpile numbers. Russia only did so to comply with bilateral treaty obligations with the U.S. All NPT nuclear armed states who are signatories to the NPT were required to provide regular updates on their nuclear posture and nuclear

⁴ The International Campaign to Abolish Nuclear Weapons (ICAN)

⁵ Stockholm International Peace Research Council (SIPRI)

⁶ Egeland, K. and Pelopidas, B., 2025. No such thing as a free donation? Research funding and conflicts of interest in nuclear weapons policy analysis. *International Relations*, 39(1), pp.125-147.

forces under Actions 5, 20 and 21 of the 10th NPT Review Conference (2010), however, these reports are becoming more infrequent and less informative. This leaves the United States as the most open about their own capabilities and who tell us most about the capabilities of others. This does give the United States immense power to shape the research and narrative of the INWO in ways which are not unhelpful to their own perspectives and interests. Researchers need to be cognisant of that fact and at the same time grateful to the U.S.. Without them we would not have much of a story to tell. Equally it could be a reflection of the epistemological dominance of the U.S. in IR generally (Smith, 2000: 399).

5.4. Case studies

Case studies should also reflect available data sets: the two case studies selected for this research: *The Prague Agenda* of President Obama (2009-2013) and the origin and operation of the *P-5 process* (2008-2013) will be helpful in answering the suite of questions relating the great power management of the order. In the process of constructing the case studies it was anticipated that light would be shed on the interactions and operations of the INO more broadly. There are a variety of definitions of what case studies are: Moses and Knutsen (2012: 313) have summarised them as 'histories with a point'; Lipson (2018: 100) has described them as 'detailed investigations of individual events, actors and relationships', but probably the closest relevant description for this analysis is 'the detailed examination of a historical episode to develop and test historical explanations that may be generalizable to other events' (Lamont, 2015:128).

The choices which were required to be made in the design and selection of case studies were whether to go with a single case study or multiple (two) case studies. It could be possible to squeeze the *P-5 process* into *The Prague Agenda*, though not the other way round as the Prague Agenda was a broad-based initiative on many fronts. In many ways, they are seeking to answer different questions: the P-5 process provides a strong base from which to explore the management of great power in the international nuclear weapons order. It is comprised of the only five NWS recognised as legitimate under the NPT—they are coincidentally, or not, also the P-5 members of the UNSC.

The Prague Agenda was a catalyst for numerous initiatives and treaties: New START; Nuclear Security Summits; JCPoA; ⁷ Bilateral Consultative Commission; The Open-Ended

⁷The Joint Comprehensive Plan of Action (JCPOA).

Working Group; CEND;⁸ The 64-Point Action Plan (NPTRevCon,2010), The International Partnership for Nuclear Disarmament Verification and The Nuclear Security Summits. Therefore, the Prague Agenda is chosen as a historical example to explore how the various elements of the nuclear order interact.

5.4.1. Limitations-

It should be acknowledged that this selection was criticised by some scholars who were interviewed. Their criticism was that the case studies were too similar in time and construct. Ideally, if the claim was that what held the INWO together was a shared common interest of 'non-proliferation', or that it was a U.S.-led order, then the other case study should seek to show an example of where this was not the case. Earlier drafts of the research design proposed examining the Prague Agenda and the role of the Republic of Ireland in the creation of the Non-proliferation Treaty by posing what became known at the UN as the 'Irish question'.⁹ This case study would have provided a different perspective on great power management and its interaction with secondary institutions, such as the UN General Assembly and the IAEA. It would have contrasted the role of great powers with nuclear weapons and permanent seats on the UNSC with relatively smaller states armed 'only' with greater moral authority and legitimacy amongst its peers in the UN. They would have required different research methods; the Prague Agenda was based on research interviews, while the other historical research relied on archival primary sources. It also highlighted a problem that was experienced in the early stages of the research in consulting archives, namely that often materials relating to nuclear weapons were shrouded in secrecy. In the end, the P-5 process and the Prague Agenda turned out to be less similar than first thought. Also, by selecting case studies that were within recent memory, it was possible to secure interviews with some of the key actors, and this became a strength of the research and a key contribution to the literature.

5.5. *Research interviews*

The use of semi-structured interviews to construct the case studies is because the period of analysis, broadly 2008-2013, is too recent for the release of sensitive government papers. However, this is a useful period to examine, as many of the principal actors involved are still alive but no longer engaged in their previous roles, which could curtail

⁸ Creating the Environment for Nuclear Disarmament (CEND).

⁹ For a good overview of this initiative see: Chossudovsky, E.M., 1990. The Origins of the Treaty on the Non-Proliferation of Nuclear Weapons: Ireland's Initiative in the United Nations (1958-61). *Irish Studies in International Affairs*, 3(2), pp.111-135.

their freedom to speak. To get a broad range of interviews, the list of prospective interviewees has been categorised into three distinct groups.

The first group are Practitioners and Officials—by this I mean people who are currently in post and working in organisations key to the nuclear order, such as: NPT RevCon/PrepCom; IAEA; Conference on Disarmament; The P-5 process secretariat; The Comprehensive Test Ban Treaty Preparatory Organisation; The Nuclear Suppliers Group. These organisations were the easiest to reach in that they have offices and websites, but they were also the least willing to have the time or inclination to be interviewed. A frequent problem was that because they were often secretariats serving a board of member states, they did not wish to speak on behalf of the organisation without clearance and approval from their boards or supervisory bodies.

The second group are policymakers and advisers—by this I mean those policymakers and advisers who were present ‘at the table’ during the period of the formation of the P-5 process and The Prague Agenda. Examples of potential interviewees would be Gary Samore who was The White House Co-ordinator for Non-proliferation and WMD between 2009 and 2013 and is currently an academic at the Belfer Centre at Harvard University, and Lord (Des) Browne who first proposed the P5 process when UK Secretary of State for Defence in 2008 and is now vice-chair of the Nuclear Threat Initiative (NTI) think tank. The key questions for this group revolve around the motivations of the great powers for proposing these new initiatives: what the problem was they were trying to solve; who were the driving forces and who were the resisting forces to the proposed new structures and initiatives?

Third, would be scholars and specialists who have been following the development of the nuclear order and possess deep expertise, such as Sir Lawrence Freedman. For this group of interviews, I am looked more for whether the claims of gaps in the literature are, in fact, correct and whether the composition and taxonomy of the INWO could be improved. Whether the research is deficient in some way. I was also interested in learning their perspectives on the hypotheses that this is, in fact, an American hegemonic order, as well as reflections on the effectiveness of the Prague Agenda from a historical perspective.

The research interviews were carried out between July 2023 and December 2023. A total of forty-three interviews with forty-two individuals were conducted, mostly using Zoom/MS Teams but also in person in London, Malvern, Oxford, Edinburgh, Geneva,

Vienna, Warsaw, Brussels and New York. The process adopted was that approved by the SGIA Ethics and Risk Committee of the University of Durham in June 2023. All participants were provided with transcripts of the interviews to review and amend. After the process, relevant interviewees who had permitted the interviews to be used were sent the actual quotes in the draft thesis for their final approval before inclusion in the submitted thesis. From a personal perspective, the interviews were the most fascinating and enjoyable part of the research process. Understandably, however, some of the interviewees, especially those currently serving as diplomats or officials in international organisations, did not wish to be identified or quoted directly; however, their insights and perspectives proved to be incredibly valuable for understanding how the INWO functioned at a practical level and what its strengths and weaknesses were. There are three other issues relevant to the interview methodology to cover briefly:

First, the period of the case studies is broadly 2008-2013, so over ten years ago. It is possible, therefore, that recollections of precise conversations and decisions may not be as clear as they were. This is why the archival phase of the project will be important to triangulate and corroborate verbal recollections where possible with published sources at the time. The corroboration process will also be aided by the third strand of the research, which explores the institutional interaction as this will involve talking to current officials involved in the secretariats of institutions of the nuclear order. Second, there is a risk that use of a snowballing interview method (Jacobsen and Landau, 2003) can lead to biases within the research (Lamont, 2015, 148). This was mainly an issue in the third area of research covering institutional interaction, as the selection approach for the examination of the case studies will be driven by the people with knowledge of what happened at the time.

Third, the use of semi-structured interviews is an approach suited to interviewing elites, allowing for the building of a rapport with the interviewer and making them more willing to share knowledge (Leech, 2002:665). Beth Leech also outlines techniques for gaining the most from semi-structured interviews, highlighting the importance of the ordering of questions, listening carefully to answers, and the use of prompts to keep the interview on track (2002: 665-667). This I found to be true.

6. Data analysis

In this section, we will consider how the data from various sources was sorted and analysed so that conclusions can be drawn. We have considered how and from where data will be collected—from archival databases, semi-structured interviews and where permissions are limited, from field notes. This produced a vast amount of data to be processed and analysed. The use of key words can assist in this process. The question is then how that data will be collated in a logical and consistent way. King, Keohane and Verba point out that a critical test for research is that ‘all data and analysis should, insofar as is possible, be replicable’ (1994:26). This is so that other research can replicate or critique the methods used for collection and analysis of data. The key here is consistency of methods.

The semi-structured interviews resulted in 335 pages of transcripts. The method of sorting the data will be using ‘keywords’, for instance, words associated with the primary institutions: great power management, balance of power, war, diplomacy, international law, and sovereignty. When it comes to the chapter on institutional interactions in the international order, the ‘key words’ may be NPT, NPT RevCon,¹⁰ CTBT,¹¹ IAEA, Conference on Disarmament, and Nuclear Suppliers Group. Possible ‘keywords’ may also be norms such as nuclear deterrence, nuclear posture, nuclear taboo, nuclear verification, consensus, etc. Finally, ‘keywords’ could be related to specific case studies such as the Prague Agenda, the P-5 process, Barack Obama, etc.

The archival materials collated would then be tagged with ‘keywords’ as would data contained in the transcripts of the semi-structured interviews. In many ways, the approach to the proposed interviews has a built-in categorisation as the interviews will be drawn from three distinctive groups: practitioners and officials, policymakers and advisers, and scholars and specialists. The proposed interview questions have been tailored to each of the three specific groups, which is the first level of categorisation of data. The attribution of ‘keyword’ tags to relevant statements will be undertaken during the process of transcribing the interviews and can then be sorted using the editing functions within MS Word.

Whilst it would be possible to use more sophisticated data analysis tools such as relational databases for these purposes, it is felt that the functionality of Google search

¹⁰ Non-Proliferation Treaty Review Conferences held once every five years under the NPT. Each NPT RevCon is preceded by three annual NPT Preparatory Committees (NPT PrepCom).

¹¹ Comprehensive Test Ban Treaty, also the Comprehensive Test Ban Treaty Preparatory Organisation (CTBTPO)

engines and the editing and search functions within MS Word and specifically the 'tags' and 'keyword tags' function, will suffice for these purposes and provide a systematic and replicable method for analysing the primary data collected in the research phase of the project.

'Finally, as in any epistemological and methodological discussion, we should not confuse ends and means. Problems and problem-solving are the core of social science research. Methods are important, and they should help researchers in various ways. Ultimately, however, they cannot substitute for a 'passionate curiosity about a great problem..' (Mills 1959: 105)' (Vennesson,2008: 239)

Chapter 5: The evolution of the international nuclear order

1. Introduction:

This chapter argues that an observable international nuclear order is sustained by classical primary institutions, universal values combined with specific rules and norms, and a vast secondary institutional architecture comprising treaties, agreements, secondary institutions, and civil society. Classifying these norms and institutions (see Appendix I) makes the nuclear order distinctive from other orders. Nuclear weapons are an 'absolute weapon' (Brodie, 1946), and an 'absolute order' has emerged to contain their destructive capability. William Walker has argued that the nature and power of nuclear weapons have created an 'unprecedented ordering imperative' (2000, 705). The questions this research explores are how the order is managed, how the norms are set and maintained, and how they interact within the order and the wider international society.

This chapter will argue that great power management behaves and has evolved in distinctive ways within the international nuclear order in that the simple possession of a nuclear weapons capability *de facto* qualifies that state as a kind of 'great power' within the order, especially in deterring an attack. This great power, however, needs to be understood as distinct from the PI great power management. In response to the 'great power' v 'great power management' paradox, established great powers, especially the P-5, have sought to add a *de jure* test through claiming legitimacy for the P-5 nuclear powers under the Nuclear Non-Proliferation Treaty (NPT)¹ and leaving the remaining four (India, Pakistan, Israel² and North Korea) outside both its privileges and its obligations. This has led to claims of the existence of a 'nuclear apartheid' (Maddock, 2010).

It will show the 'nuclear taboo' (Quester, 2005; Tannenwald, 2007) to be a fragile norm of the international nuclear order, with the use of nuclear weapons actively contemplated by the U.S. military in response to crises such as The Berlin Blockade (1948); Korean War (1950); Taiwan Straits Crisis (1958) and Vietnam (1969) and most recently by North Korea and Russia in Ukraine. It may be a 'fragile norm' but it has held (by a thread) for eighty years.

¹ In Article IX para 3 of the NPT Treaty a nuclear weapons state is deemed to be one which 'exploded a nuclear weapon before 1 January 1967'

² It is widely reported that Israel had two atomic bombs in 1967 and that they were put on alert during the Six Day War. Israel officially maintains a policy of nuclear ambiguity. (Plant, 2012: 175-177) <https://nsarchive.gwu.edu/> US intelligence assessments on Israel's nuclear arsenal.

This chapter will further argue that the international nuclear order is, above all, an American nuclear order. It has developed and organised around the agenda and leadership of the United States. This leadership³ has two tasks. First, to project wider U.S. power, for example, through extended nuclear deterrence and nuclear sharing. Second, to preserve the nuclear order. As William Walker put it, 'Throughout the nuclear age [...] most of the ordering ideas and most of the desire to realise those ideas came from the United States' (2000, 709). Examples would include: The Baruch Plan based on The Acheson-Lilienthal Report (1946); Eisenhower's 'Atoms for Peace' speech at the UN (1953), The Nunn-Lugar—Threat Reduction Act (1991) and the Prague Agenda (2009).

The U.S. perceives itself to have a unique duty of responsibility for the nuclear order, having been the lead nation which developed the nuclear bomb, albeit initially with the UK and Canada, and being the only nation to have used it in war. The U.S. behaves as a hegemon, more than a 'mere' great power—guaranteeing and protecting the 'normative status quo' which it has created (Müller, 2013:142). As Hedley Bull put it pragmatically, 'in this imperfect world any international order must be someone's order, and any order is better than none' (Ayson, 2012:65).⁴

That the legitimacy of U.S. leadership has been widely accepted to a greater or lesser extent since 1945 is a distinctive feature of the international nuclear order. This was recognised even by the Soviet Union, which appeared comfortable with the U.S. assuming a policing role of the international nuclear order.

Finally, the chapter will point to a counterintuitive finding, namely that if we are to look at the international nuclear order from a pragmatic perspective, the conclusion would be that it has been a successful order compared to others. Such a rationalist conclusion would be consistent with the view of Hedley Bull that in the international nuclear order 'questions of justice are less important than questions of order' (Alderson and Hurrell, 2000: 219). It also fits with Martin Wight's claim in *Power Politics* that 'Powers will continue to seek security without reference to justice, and to pursue their vital interests irrespective of common interests' (Wight, 1979: 293) and that their 'shared interest' is in averting a nuclear war.

³ Or hegemony see: Gibbons, R.D., 2016. *American hegemony and the politics of the nuclear non-proliferation regime*. Georgetown University.

⁴ Hedley Bull speaking at the Council on Foreign Relations 19 December, 1963—cited by Robert Ayson (2012:65)

2: What do we mean by the International Nuclear Weapons Order?



Illustration 12. The shape of the INWO

The INWO is a distinctive order within the international society of sovereign states. Illustration 11 (above) seeks to set out the elements of the INWO. The distinctiveness reads across all the elements: norms, institutions, technology, civil society, treaties and even states being divided into the 184 NNWS who are bound by the NPT; 5 NWS recognised by the NPT and the four NWS outside of the NPT. It is further held that this order is maintained through the existence of certain primary institutions, these being balance of power, great power management, diplomacy, international law, sovereignty and war, and certain norms or universal values of life, truth, and property (Bull, 1977:5). However, in the INWO even the PIs are distinctive especially balance of power, great power management and war.

The 'primary goals' (Walker, 2012) or 'goals and values' that the society of states is seeking to achieve because of constructing the international order is 'survival' (Hurrell, 2003:26). The most recent study estimates the global deaths from a nuclear war being 'above 5 billion' due to the combined effects of radiation, nuclear winter and nuclear famine (Xia, Robock et al., 2022:586). Therefore, all states and peoples have a common interest in averting such a catastrophe. Where there is shared interest, then there is space for creating shared solutions.

To avert a nuclear security dilemma (Booth and Wheeler, 2008), the international society of states has created 'consensual, norm-regulated systems to stop the spiral [into an arms race]; they serve the purpose of common security governance' (Müller et al., 2013: 2). The order seeks to constrain nuclear weapons and share the economic benefits of nuclear power. Nina Tannenwald (2008) has described the nuclear order as being divided between the 'haves' and the 'have-nots', each having norms—shared expectations about behaviour. For the 'haves', the norms are non-proliferation; non-use (nuclear taboo); disarmament; no-explosive testing and nuclear safety and security. For the 'have nots' the norms are non-proliferation, peaceful use of nuclear energy, and nuclear safety and security. These differing set of norms were not fixed but evolved over time due to the unique set of circumstances which gave rise to nuclear power.

3. The race for the bomb begins

3.1. Science leads

The development of nuclear fission was not one single breakthrough, but a culmination of multiple scientific breakthroughs: Einstein, (Switzerland) (1905); Rutherford (New Zealand/UK) (1911); Chadwick (UK) (1932); Fermi (Italy/U.S.) (1934); Curie/Joliot-Curie (France) (1934); Szilard (Germany/UK/U.S.) (1934); Hahn, Strassman, Meitner (Austria/Sweden) and Frisch (Germany) (1938); Bohr (Denmark) (1939) and Frisch/Peierls (Germany/UK) (1940). Margaret Gowing summed up the mood in Europe at the time:

while the newspapers were full of the events and threats that we driving Europe inexorably into war, the scientific journals were full of notes and articles describing the rapid succession of discoveries that had at last made the release of atomic energy a possibility, albeit a remote one. The sobriety of the notes and articles concealed an intense excitement among the nuclear physicists, even a feverish competition⁵

3.2 The Nazi nuclear programme

Bertrand Goldschmidt recalls, 'when the war started in September 1939, Germany was the first and only country to have a secret military unit exclusively devoted to the military applications of uranium fission' (1995,18). The German uranium programme was established in September 1939 in Gottow in a rocket projectiles establishment and at the Kaiser Wilhelm Institute for Physics, Berlin where Hahn and Strassmann had done their ground-breaking research on nuclear fission in 1938. This was also where Otto Frisch and Rudolph Peierls, had worked before fleeing to Britain (Jungk,1958: 90).

⁵ Quotation used in review of Gowing (1964) by Herbert Feis, 1967:99

The lead of Nazi Germany was a source of acute concern especially amongst the growing number of emigres from Nazi persecution. Leo Szilard, a Jewish physicist who had fled from Berlin in 1933 first to the UK and then the U.S. (1938), became deeply concerned about publishing more papers on the potential of nuclear fission to be used for military purposes by Nazi Germany and sought to persuade scientists to withhold publication of results (Weart, 1976:25).

3.3. Alarm raised in Washington, DC

In a further significant step, Szilard drafted a letter for Albert Einstein to send to President Franklin Roosevelt in 1939. The letter from Einstein to Roosevelt was delivered personally by Alexander Sachs to FDR on 11 October 1939 (Rhodes, 2012: 313). Einstein was chosen as the messenger as he was the most famous scientist in the world. The letter warned of the power of nuclear fission using uranium and its potential for military use and referenced concern about Germany:

I understand that Germany has actually stopped the sale of uranium from the Czechoslovakian mines which she has taken over. That she should have taken such early action might perhaps be understood on the ground that the son of the German Under-Secretary of State, von Weizsäcker, is attached to the Kaiser-Wilhelm-Institut in Berlin where some of the American work on uranium is now being repeated.⁶

The approach worked, and FDR established an Advisory Committee on Uranium (the forerunner of The Manhattan Project), which met for the first time on October 21, 1939. Although neutral, the United States was now the second great power to establish a government programme on uranium fission.

3.4. British nuclear programme begins

The next major development was to come from what Jeremy Bernstein called 'A memorandum that changed the world' (2011) The memorandum was written by two German emigres of Jewish descent, Otto Frisch and Rudolph Peierls, who had been at the University of Berlin and were now offered places at the University of Birmingham by Mark Oliphant, professor of Physics (Bernstein, 2011: 446).

The results of their work were two memoranda produced in March 1940 under the heading 'On the construction of a 'super-bomb' based on a nuclear chain-reaction in uranium.' Oliphant managed to get Sir Henry Tizard at the Ministry of Defence, with whom he was working on the development of radar, to read the papers. What Frisch and

⁶ "[Albert Einstein's Letters to President Franklin Delano Roosevelt](#)". *E-World*. 1997. [Archived](#) from the original on April 17, 2012. Retrieved June 21, 2023.

Peierls did was to show that through 'highly enriching' Uranium 235 it would be possible to construct a 'super bomb' with kilograms rather than tonnes of Uranium (Gowing, 1989:32). In their second memorandum, Frisch and Peierls, concluded that:

there was 'no possible defence' against an atomic 'super-bomb' and that 'If one works on the assumption that Germany is, or will be, in the possession of this weapon...The most effective reply would be a counter-threat with a similar weapon (Rhodes, 2012: 325).

The British established a new committee, The MAUD Committee, in response to Frisch and Peierls memoranda.⁷ The MAUD Committee held its first meeting in April 1940 under the chairmanship of Sir George Thomson, another Physics Nobel laureate (1937), and work streams were set up at the universities of Birmingham, Cambridge, Oxford and Liverpool. France had undertaken heroic actions to avoid nuclear know-how and materials falling into Nazi hands especially when Paris, where the Curie/Joliot-Curie Laboratory was located, was occupied in May 1940. The result of this work was the MAUD reports in July 1941, which proved theoretically that a 'super-bomb' was possible. From these, Winston Churchill decided to embark on production through a vehicle called The Tube Alloys project, which was a partnership with Canada, which had access to the necessary raw materials and established a laboratory in Montreal.

3.5. The Manhattan Project

All was to change in a few months because of the attack on Pearl Harbour (December 1941) and the U.S. entry into the war. The U.S. nuclear research programme was now massively expanded and given a vast increase in resources and a renewed sense of urgency under the name of The Manhattan Project. Moreover, the British and Canadians, now formal wartime Allies, shared their knowledge on Tube Alloys with their American counterparts in January 1942 (Moore, 2021: 378).

After much direct lobbying of Roosevelt by Churchill, the U.S., UK, and Canada finally agreed to formalise joint research and development of nuclear technologies through The Quebec Agreement⁸ in August 1943. The agreement was said to represent a merger between The Manhattan Project and Tube Alloys and the formation of a new Combined Policy Committee, whereas in reality, it was more accurately described as a takeover by the United States.

The U.S. programme was a formidable demonstration of the military-industrial complex, involving 130,000 people across 37 facilities at its peak and costing \$2 billion (\$27

⁷ Atomic Archive—[Frisch and Peierls Memorandum](#), March 1940

⁸ [The Quebec Agreement](#)—Atomic Archives

billion at 2017 prices) and 21 past or future Nobel Prize winning scientists would be associated with it. The UK and Canada could not compete with the scale required to develop weapons before the war was over. The Quebec Agreement of 1943 was, however, the first international nuclear agreement between sovereign states.

3.6. Sharing with the Soviets?

A significant debate between scientists/politicians, and the military between 1944 and 1945 was whether and how knowledge of the atomic weapon could be shared with the Soviet Union as a wartime ally. Neils Bohr, the most famous scientist in the world apart from Einstein, who was a senior adviser to both Tube Alloys and The Manhattan Project, wrote to President Roosevelt in July 1944 advocating sharing nuclear knowledge with the Soviet Union. He argued that 'Unless some agreement about the control of the new active materials can be attained, any temporary advantage, however great, may be outweighed by a perpetual menace to human security'.⁹

When Neils and Margrethe Bohr met Roosevelt, the U.S. President gave the impression of agreement with the possibility of sharing information with the Soviets (Bernstein, 1976:225) though this is contested (Sherwin,1973:957). What is now known is that Winston Churchill was adamantly against sharing knowledge with the Soviets. The matter was discussed between the two leaders privately at Roosevelt's home at Hyde Park, and a secret agreement was reached between the two men that information should not be shared with anyone 'particularly the Russians' and that Professor Bohr should be investigated as a potential security risk.¹⁰

What we also know now is that the Soviet State Defence Committee had been working on an atomic bomb project since 1942 (Holloway, 1981: 160) as they had been alerted by a young scientist, N.I. Flerov, that all American research on nuclear fission had suddenly become classified, suggesting military research in the area (Marsh,1986:248). Stalin had been kept personally informed on the progress of The Manhattan Project through the activities of spies such as Klaus Fuchs amongst others. What we also know is that when the Soviets did eventually succeed in testing an atomic device on the 29 August 1949 the bomb RDS-I or 'Lightning's first strike' was a 'carbon copy' of the plutonium bomb tested in July 1945 and used against Nagasaki (Hobson,1996: 829).

⁹ [Neils Bohr's memorandum to President Roosevelt—July 1944](#)

¹⁰ [Aide-Mémoire Initialled by President Roosevelt and Prime Minister. \[HYDE PARK, September 19, 1944.\]](#)

3.7. Testing decisions

The Manhattan Project had two atomic bomb designs—the first using highly enriched Uranium (HEU) and the second using Plutonium, which is not a naturally occurring substance but is the product of spent Uranium nuclear fuel. The two isotopes required different bomb designs—the HEU bomb used a gun-type trigger mechanism, and the Plutonium required an implosion-type design. By April 1945, scientists working on the Manhattan Project were confident that the HEU bomb would work, but they would not be able to enrich sufficient HEU fissile material until late July, by which time the war in Europe would be over (VE Day, 8 May 1945). They were unsure that a Plutonium 239 bomb would work but would have sufficient fissile material to test it by early July.

Roosevelt died on 12th April 1945 . He was replaced by Harry Truman, who had only been sworn in as vice president in January 1945. Yet it would fall to Truman to make the key decisions as to when to use the atomic bomb. Truman was briefed about the Manhattan Project on 25th April 1945 and subsequently agreed to proceed with the test. The Trinity test of the plutonium device took place on 16th July 1945 at Alamogordo in New Mexico. It was a success.

3.8. Showdown in Potsdam

Scientists now knew that they had two workable bombs that would be available from early August. The results of the test were communicated to Truman, who was in Germany and had delayed the start of the Potsdam Conference with Soviet and British Allies until the results of the Trinity test were known. The Trinity test took place on 16 July, and the Potsdam Conference commenced on the 17th. Truman believed that news of the successful test would strengthen his negotiating hand with Stalin. This view was shared by Winston Churchill. ¹¹

Field Marshall Lord Alanbrooke, who was with Churchill at Potsdam, records in his diary Churchill's view that the atomic bomb was meant for the great powers:

We now had something in our hands which would redress the balance with the Russians. The secret of this explosive and the power to use it would completely alter the diplomatic equilibrium which had been adrift since the defeat of Germany. Now we had a new value which redressed our position (pushing out his chin and scowling); now we could say, 'If you insist on this or that, well....' And then where are the Russians? (Bryant, 1959; Feis, 1960: 172).

¹¹ Winston Churchill had been defeated in the General Election held on 5 July, 1945 however counting was delayed until 26 July in order to allow for overseas votes, especially of the armed services serving overseas to be returned to the UK. Churchill was replaced by Clement Atlee at the Conference from 28 July.

However, it was to Japan that the attention of the conference was directed with the *Potsdam Declaration* issued on 26 July 1945. The Declaration stated in Clause 4:

The time has come for Japan to decide whether she will continue to be controlled by those self-willed militaristic advisers whose unintelligent calculations have brought the Empire of Japan to the threshold of annihilation, or whether she will follow the path of reason.¹²

The Declaration was made by the U.S., UK, and Republic of China. The Soviets initially decided not to be party to the ultimatum. The ultimatum included a demand for an ‘unconditional surrender’ and stated that ‘The [only] alternative for Japan is prompt and utter destruction.’ The Potsdam Declaration ultimatum was communicated to the Japanese people through leaflets and radio broadcasts as well as through diplomatic channels.

3.8. Hiroshima

There being no surrender, the decision was taken to use the HEU bomb ‘Little Boy’ against the city of Hiroshima. It exploded at 08:15AM with an explosive blast of 15kt. It killed 70,000-80,000 people and another 70,000 injured¹³many of whom would die later due to radiation sickness and burns. There still being no ‘unconditional surrender’ preparations for the second bomb, which had been planned for 11th August were brought forward to the 9th August.

On 9th August at 11:02 AM, a second plutonium implosion bomb of the type used in the Trinity test called ‘Fat Man’ was detonated over Nagasaki, releasing an explosive blast of 21 kt. It killed an estimated 35,000-40,000 people immediately, with another 35,000-40,000 injured, many of whom died later because of their injuries. Plans were for a potential third plutonium bomb to be used on 19th August, but on 14 August 1945, Japan formally accepted an unconditional surrender.

3:10. Nagasaki

It is worth pausing at this point to reflect on the crucial decision to bring forward the second bomb to 9 rather than 11 August. The official line was that the changes were due to the ‘weather forecast’, but there could have been other possibilities. First, at Midnight on 8th August 1945, the Soviet Union declared war on Japan. Second, it is now known that the Japanese Supreme Council met for the first time to discuss unconditional

¹² [The Potsdam Declaration](#)—24 July, 1945

¹³ [Counting the Dead at Hiroshima and Nagasaki](#) by Alex Wellerstein published in the Bulletin of the Atomic Scientists 4 August, 2020

surrender (Ward, 2013:31). Which of these was the dominant concern in American minds at the time may never be known.

The events of 9th August give rise to the exploration of the prime motivation for the decision of the U.S. to use the atomic bomb. Some have suggested that it was because winning the war against Japan would require a massive landing of U.S. and Allied forces, and the U.S. had been shocked by the cost of taking the islands of Iwo Jima and Okinawa. The landing was planned for November. This is the most plausible of the reasons, but there were others. There was a suggestion that having invested so much effort in developing the atomic weapons and proven that they worked, they should be used against Japan in part to win the war and in part to punish the Japanese for starting the war with the attack on Pearl Harbour and their conduct of the war.

Others contest that Japan was already seeking a negotiated surrender ahead of the Soviet Union declaring war against Japan three months after the war in Europe was over, as Stalin had pledged to do at Tehran in November-December 1943. They entered the war on 9 August 1945, exactly three months after VE Day (9th May 1945).¹⁴ Another suggestion was that the U.S. sought to achieve victory over Japan before the Soviet Union entered the war and aimed to benefit territorially from a peace settlement. Churchill's reaction to the news of the successful Trinity test and Truman's decision to delay the Potsdam Conference until the results of the Trinity test were known suggests that the 'great powers' were looking to leverage a diplomatic/balance of power advantage.

There is no consensus on the primary U.S. motivation for the use of the bomb, but clues may be found in the address of President Truman to the (U.S.) Nation on 9th August 1945:

We won the race of discovery [of the atomic bomb] against the Germans. Having found the bomb, we have used it. We have used it against those who attacked us without warning at Pearl Harbor, against those who have starved, beaten and executed American prisoners of war, against those who have abandoned all pretence of obeying international laws of warfare...It is an awful responsibility which has come to us. We thank God that it has come to us and not our enemies, and we pray that He [God] may guide us to use in His ways and for His purposes.

¹⁵

3.11. Reflections on the race for the bomb

¹⁴ Russia mark VE Day on 9 May, rather than 8 May in UK and U.S. as the surrender document late in the evening on 8th May in Berlin when it was already 9th May in Moscow.

¹⁵ [Radio Message to the American People on the Potsdam Conference](#)—9 August, 1945

It is worth iterating here at the conclusion of Part I of the evolution of the nuclear order that there were substantial common interests emerging which resulted in co-ordination, especially between allied great powers using tools of the primary institutions of diplomacy, international law, war, balance of power without the existence of secondary institutions such as the United Nations which came into being on 24 October, 1945 or the United Nations Atomic Energy Commission 24 January 1946. It was possible for great powers to co-ordinate their activities through meetings such as Tehran (1943), Breton Woods and Dumbarton Oakes (1944), Yalta (1945), and Potsdam (1945). The U.S. and UK could agree The Quebec Agreement in 1943, and the U.S. could honour its commitment to seek the approval of the parties before using an atomic bomb. The Soviet Union would give its word in Tehran to enter the war against Japan within three months of the conclusion of the war in Europe, which it did, to the day. Hans Morgenthau believed that nuclear weapons represented the 'first true revolution in foreign policy since the beginning of history'.¹⁶ Yet, this orderliness would not have been possible without the existence of certain universal values, common interests and primary institutions (Bull,2002; Buzan, 2004).

4. The international nuclear weapons order emerges

4.1. Old friends, new terms?

With the wars in Europe and the Pacific now ended, attention turned to what to do with the tremendous power which the U.S., had acquired. In the U.S. mind was Neils Bohr's prescient warning of July 1944 that the monopoly of possessing an atomic weapon would certainly only be a 'temporary one'. Henry Stimson, the outgoing U.S. Secretary of War, proposed to the cabinet in late September 1945 that atomic weapons and power should be placed under the control of the United Nations (Paul,2000:96).

The British believed that the atomic bomb was not only crucial to their security (against the Soviet Union) and status in the post-war international order but that the best way to secure it was in a continued partnership with the United States. This was to be achieved through a renewal of the Quebec Agreement (1943), which became their first diplomatic priority. The efforts to secure an agreement with Washington became a sobering reality check on the realignment of post-war power in Anglo-American relations. (Kugler and Organaski 1989,173). Gormly captured the mood:

¹⁶ [□](#) Hook, S., Hughes, H.S., Morgenthau, H.J. and Snow, C.P., 1961. Western values and total war. *Commentary*, 32(4), p.280.

A sense of disquiet persisted in the British delegation...The United States had orchestrated the conference...forcing the adoption of its position...The United States seemed to feel it could, without warning, change its position and still expect full support from its friends (Gormly, 1984:137).

The most significant of these to be set out in the new 'Quebec Agreement' (which was perhaps more accurately re-named The Washington Declaration) announced on 15 November, 1945 was a shift in the U.S. position away from negotiating with the Soviet Union directly, and that this should be done through the United Nations (Broscious, 1999:27; Poole, 1990: 24). The British were in no position to object as they were too dependent on the U.S. to secure nuclear weapons and economically dependent too.

4.2. UN centre stage- Moscow strains

The U.S. plan was to propose a new organisation for the control of nuclear power at the first meeting of the UN General Assembly, which was scheduled to be held in London in January 1946. The Soviets did not support the proposal to route controls through the UN rather than bilaterally between the great powers. They objected to the U.S. idea that the UN organisation would have the power to inspect member states' nuclear research facilities. Responding to this concern, U.S. Secretary of State James Byrnes had proposed to Soviet Foreign Secretary Vyacheslav Molotov that a meeting of the three great powers at the Secretary of State level should take place in Moscow in December 1945 to iron out 'misunderstandings' of the Washington Declaration ahead of the meeting of the UNGA in January.

The Moscow Conference managed to secure agreement on the wording of a resolution to present to the UNGA Preparatory Commission. On 6 January 1946, the draft resolution was sent in the names not just of the 'Big Three' but also in the names of China, France and Canada. As a result of skilfully preparing the ground when Secretary Byrnes came to the formal presentation of the proposal for the establishment of a United Nations Atomic Energy Commission before the UNGA on 24th January 1946, it was agreed to unanimously and without amendment (Laves, Wilcox, 1946: 351).

The First Resolution was also remarkable in that it was the first recorded use of the term Weapons of Mass Destruction (WMD) to capture weapons which were seen as being 'beyond the pale' of acceptable weapons in the conduct of human conflict. The terms of reference charged the newly created Commission to develop proposals for 'the

elimination from national armaments of atomic weapons and all other weapons of mass destruction.¹⁷

4.3. Acheson-Lilienthal Report

In what might have been termed an attempt by the U.S. to retain 'thought leadership' of how a UN Commission might work, Byrnes had set up a Committee on Atomic Energy under the chairmanship of Dean Acheson, U.S. Under Secretary of State and Truman's principal foreign policy adviser and including a who's who of The Manhattan Project team: Conant, Bush, Groves, McCloy and Oppenheimer. Acheson then added a board of consultants under David Lilienthal to provide technical advice. The U.S. Atomic Energy Committee had been established on 7 January 1946, and The Acheson-Lilienthal Report was published on 16 March 1946. The central conclusion of Acheson-Lilienthal was radical. Rather than seeking to control possession of weapons by policing and inspections, it proposed controlling the supply of weapons-usable fissile material. The materials would be placed under the control of a specially constituted Atomic Development Authority (ADA) and released on licence solely for peaceful civilian power purposes and in exchange for appropriate safeguards (Williams, Feiveson, 1990:544).

4.4. The Baruch Plan

When Bernard Baruch presented a modified version of the Acheson-Lilienthal plan at the first meeting of the UN Atomic Energy Commission in June 1946, it encountered immediate problems. The Soviet delegation objected to the removal of a veto on decisions of the UNAEC. The Soviets also insisted that the U.S. should eliminate their weapons before other nations were required to make the same commitment (Walker, 2011:44; Freedman and Michaels, 2019: 57). The proposals caused concern in London, too. The message of the Baruch Plan was clear: the U.S. intended the control of nuclear energy to be 'entirely on American terms—or not at all' (Gerber, 1982: 76). This was to become the *modus operandi* of the nuclear order.

4.5. The Atomic Energy Act (1946), also known as the McMahon Act

Whatever the bold ambitions of sharing technology, the power to decide did not rest entirely with the U.S. President. There were domestic forces shaping decisions in the U.S. There had been a broadly liberal bill introduced by Senator Brien McMahon in December 1945 seeking to legislate for Congressional and civilian (rather than military) control over how nuclear weapons know-how was shared with other countries. Though this would be

¹⁷ [UN RES I](#) (1946)

tested by General MacArthur in the Korean War with the McArthur Plan which eventually led to McArthur's dismissal by President Truman in 1951. The intent was to honour the sharing of information with Britain and Canada under the Washington Declaration (successor to the Quebec Agreement) and maintain the security of the nuclear know-how.

The benign intentions were abandoned when, in February 1946, Igor Gouzenko, who worked as a cipher clerk in the Soviet embassy in Canada, defected. He revealed a network of Canadian and British spies who had worked under Soviet control. The revelation confirmed the worst fears of Congress that the Soviets had penetrated the Manhattan Project and that several Canadian and British scientists had passed on information to Moscow. This coincided with George Kennan's famous 'long telegram' warning that the Soviets could not be trusted and advocated a harder line from the U.S. to protect its nuclear advantage. To this must be added Churchill's 'Iron Curtain' speech given in Fulton, Missouri, in March 1946. The tide had turned decisively from one of post-war hope to cold war fear.

The combined result was that the clause on 'sharing information' now became a proscriptive clause about 'controlling Information' and the Act explicitly 'forbade the United States government from sharing information about nuclear technology with any other power', which crucially meant Britain too. Anglo-American relations were to take second place to Washington politics (Ball, 2009: 440-441; Gowing, 1974: 63-130). Gerber reflected, 'Tragically, however, we may never know whether there was a possibility in 1946 of reaching an accommodation with the Russians' because U.S. policymakers 'prevented them from considering the possibility of agreement on anything other than American terms' (1982: 95).

5. The Cold War begins

Why did, at this crucial moment, the great power management of the system break down? After all, it had been sustained through the latter part of World War II and played a constructive role in setting the ground rules for the United Nations. Drawing on the ES concept of PIs, could be the absence, at that point, of a nuclear balance of power. Great power management is inextricably linked to the balance of power (Little, 2006:110). For Buzan, great power management was always a derivative institution of the balance of power (Buzan, 2004: 184). Bull believed that a necessary condition of balance of power in a nuclear-armed world was 'the ability to strike at the other with nuclear weapons' (Bull, 1977:116). Vattel (cited by Bull, 1977) set out that balance of power was 'a state of affairs such that no one power is in a position where it is preponderant and can lay

down the law to others' (Bull, 1977:97). Yet, at this point, with the American monopoly of nuclear weapons technology there was no 'nuclear' balance of power and therefore no 'nuclear' great power management either. Indeed, the trajectory of the PI of diplomacy was to level the nuclear playing field downwards by eliminating nuclear weapons altogether as per the Baruch Plan, Gromyko Plan and UNGA first resolution (A/RES/1 (1)).

5.1. Britain goes alone and France follows

With nuclear cooperation with the U.S. halted, there was a general mood of shock and anger in London. Sir Michael Perrin, a senior official, later recalled the mood for an episode of BBC Time-watch and recorded in Peter Hennessy's 2007 book, 'Cabinets and the Bomb' (2007: 48). The Foreign Secretary, Ernest Bevin, had just returned from a 'heavy' lunch and a conversation with U.S. Secretary of State James Byrnes. Bevin was furious at the humiliating way in which he had been spoken to by Byrnes about the atomic programme and declared to the meeting, 'We've got to have this thing over here, whatever it costs... We've got to have a bloody Union Jack on top of it! This sentiment is reminiscent of other aspirant nuclear powers.

France, having lived through the humiliation of occupation under the Nazis, and a feeling that the U.S. had initially abandoned it, Charles de Gaulle (president 1959-1969) saw a nuclear deterrent as an essential guarantee of its security and independence and identified with 'Gaullist identity of the glory of France' (Ritchie, 2008: 10). According to Sagan, 'For de Gaulle, the atomic bomb was a dramatic symbol of French independence and was thus needed for France to continue to be seen, by itself and others, as a great power' (1996,79).

5.2. Soviets join the nuclear club

There was little surprise when news of the first successful Soviet test on 29th August 1949 became known. If anything, there was perhaps a feeling of 'what took them so long' given the level of Soviet espionage, most notably of Klaus Fuchs. However, this was not known at the time and came as a shock. Although the Soviet Union was now the second member of the 'nuclear club', in 1950, the U.S. nuclear weapons stockpile was already 299, whereas the Soviet Union's was 5 (Norris and Kristensen, 2016 (77-83)). Moreover, the U.S. was making progress towards building a thermonuclear device which would be over 400 times more powerful than the Hiroshima bomb, or the device tested by the Soviets in 1949. Yet now there did exist some emerging 'balance of power' in the nuclear domain. What this research will subsequently seek to argue is that what makes nuclear weapons different is simply the fact that 'states are treated as equivalent

when they acquire even a single nuclear weapon' (Narang, 2014: 6). Though that 'treatment' is more in the deterring of nuclear and conventional attacks than in imposing actions on an adversary.¹⁸ The same could not be said of a fighter jet or an aircraft carrier, nor biological or chemical weapons; the nuclear weapon is therefore a unique weapon.

5.3. *The Korean War*

On 25 June 1950, North Korea launched an invasion of South Korea, triggering the first great power military confrontation since the end of WWII. The UN Security Council swiftly condemned the attack. Military intervention under UN authority was made possible because the Soviet Union, which would have used its veto to block UN action, had been boycotting the UNSC since January 1950 in protest against Taiwan's occupation of the Chinese permanent seat in the UNSC.

Despite the action being given 'legitimacy' under the banner of the United Nations, the U.S. was not going to allow itself to be restrained from the use of atomic weapons if it judged them necessary, despite direct pleas from Clement Atlee (Calingaert, 1988: 180). Indeed, their use formed an integral part of the MacArthur Plan.¹⁹ However, concern was also expressed by Jawaharlal Nehru, the first Prime Minister of independent India, who told the U.S. that 'there was a widespread feeling in Asia that the atomic bomb is only to be used against Asiatics' (Jones, 2010:84).

When President Dwight D. Eisenhower became the 34th president of the United States in January 1953, the implied threat of the use of nuclear weapons against China was made by John Foster Dulles. It was an 'unmistakable warning' to Beijing, and Dulles felt that this had worked. An Armistice was agreed on 27 July 1953 (Dingman, 1988: 50). This was accompanied by a security guarantee and the locating of U.S. nuclear weapons on South Korean territory continuously from 1958-1991 and reaching a peak of 950 warheads in 1967 (Kristensen and Norris, 2017: 349). This would fit with the arguments made in *Nuclear Weapons and Coercive Diplomacy* by Todd Sechsur and Matthew Fuhmann 'The coercer's objective is to change the targets behaviour without having to execute the threat' (2017:22).

¹⁸ This is contested in the recent empirical evidence e.g. Russia and Ukraine, Israel and Gaza and India and Pakistan.

¹⁹ O'Ballance, E., 1965. *The MacArthur Plan*. *Royal United Services Institution. Journal*, 110(639), p.248.

5.4. Don't get MAD get even?

As Deng Xiaoping, Secretary General of the People's Republic of China Central Committee said on 25 April 1956:

The Soviet Union had the atom bomb. Where does its significance lie? It lies in the fact that the imperialists are afraid of it. Are the imperialists afraid of us? I think they are not...The U.S.A stations troops on Taiwan because we have no atom bombs. (quoted in Holslag, 2016:133).

The problem is that the coercion may lead to the calculation in the mind of the coerced that they must acquire the same capability. Thus, nuclear coercive diplomacy can sometimes be seen as a catalyst for nuclear proliferation. As Lawrence Freedman put it in the context of the U.S. war on terror and identification of the 'axis of evil' 'The only apparently credible way to deter the armed force of the U.S. is to own your own nuclear arsenal' (quoted in Allison, 2010:82).

The experience of the Korean War in terms of the nuclear order demonstrated a number of facts: First that the 'nuclear taboo' was not quite as strong as may have been thought in that Eisenhower had not only contemplated using nuclear weapons against China, but also nuclear weapons in North Korea (Snyder, 1993:6) as part of the MacArthur Plan. Second, that whereas Bernard Brodie had espoused in his seminal essay of 1946 *The Absolute Weapon: Atomic Power and World Order* that 'thus far the chief purpose of the military establishment has been to win wars. From now on its chief purpose must be to avert them' (Brodie, 1946:76). Limited wars would continue to be a feature of the Cold War between nuclear armed states, but they became 'proxy wars'.²⁰

It confirmed that the possession and threat of their use was no guarantee of an 'easy and painless route to victory. In the future, nuclear forces would be expected to do little more than neutralise the other side. The struggle for advantage would have to be waged with conventional arms' (Freedman and Michaels, 2019:101). Though the nuclear standoff, Mutually Assured Destruction (MAD)²¹ between the United States and Soviet Union may have held in the developed world, there was a displacement of military conflict through conventional proxy/civil wars in the developing world such as: Vietnam (1953-1975), Central America (1960-1996), Congo (1960-1965), Ethiopia (1974-1991), North Yemen (1962-1970), Chad (1965-1979), Indonesia (1975-1999), Angola (1974-2002), Cambodia (1977-1991) and Afghanistan (1979-1989) *inter alia*. This demonstrates an

²⁰ Bar-Siman-Tov, Y., 1984. The strategy of war by proxy. *Cooperation and Conflict*, 19(4), pp.263-273.

²¹ Sokolski, H.D. ed., 2004. *Getting MAD: a nuclear mutual assured destruction, its origins and practice*. Strategic Studies Institute, US Army War College.

interconnectedness between the nuclear order and wider international society. However, it also challenges the view that nuclear weapons are simply another weapon a 'ratio of force'²² or another 'rung' on the escalation ladder.²³ They are unique weapons and are regarded as such by NWS and NNWS alike, a claim which is evidenced that they have not been used in military conflict for eighty years. It is the claim here that the weapons are unique and that is what makes the order unique.

5.5. *Extended deterrence—the weakest link?*

At this juncture it is essential to reference an important tool of great power management of the international nuclear order which is the use of extended nuclear deterrence. This is where assurances are given by a nuclear weapons state (the protector) to an allied non-nuclear state (the *protégé*) that in the event of nuclear attack by an aggressor the protector would respond with nuclear weapons on behalf of a the *protégé*. This creates an added calculation in the mind of the aggressor. However, sceptics suggest that whilst the United States might be confidently expected to retaliate to a nuclear attack on San Francisco with nuclear weapons, they may not want to want to risk an attack on San Francisco for responding to a nuclear attack on Seoul (Allison et al, 2022; Huth, 1988: 439; Behm, 2021: 139).

The United States offers extended deterrence to 30 countries, many within NATO (Trachtenberg, 2012:68). The motivation for some of these guarantees is to deter attacks by an aggressor, but also to limit nuclear proliferation such as in Japan or South Korea. Extended deterrence is often ambiguous. Manifestations range from locating U.S. nuclear weapons on the territory of the *protégé* (as with nuclear sharing arrangements with NATO members), having an explicit nuclear guarantee (as with South Korea), or an implied arrangement as with Taiwan. The development of Intercontinental Ballistic Missile Capabilities (ICBM), and Submarine Launched Ballistic Missiles (SLBMs) have reduced the necessity to locate nuclear weapons overseas. The largest extended deterrence arrangement is within NATO, which includes nuclear sharing arrangements with U.S. nuclear gravity bombs located in Italy, Netherlands, Germany, Belgium and Turkey. There is also extended deterrence via ballistic missile defence systems (BMD), which risk creating a security dilemma for Russia, leading Russia to build up its nuclear forces (Light, 2008: 31). Thus, United States nuclear weapons become the 'reserve currency' of large

²² Waltz, K.N., 1967. International structure, national force, and the balance of world power. *Journal of International Affairs*, 21(2), pp.215-231.

²³ Kahn, H., 1989. On escalation. In *US Nuclear Strategy: A Reader* (pp. 283-336). London: Palgrave Macmillan UK.

parts of the nuclear order. The array of arrangements, their complexity and opacity lead Lawrence Freedman to conclude his *Evolution of Nuclear Strategy* (2019) with this warning:

The weakest link in the whole nuclear order remains extended deterrence, the requirement that the United States accepts the risk of nuclear war on behalf of its allies. The fact that these arrangements have stayed in place for sixty years is impressive, but it is a long time since they were tested, and their foundations are becoming more fragile. (Freedman and Michaels, 2019:678)

5.6. Atoms for Peace bold new plan or re-heat of Baruch?

Eisenhower, despite being a military man, believed in the power of language when he noted that 'Public opinion usually wins the war and always wins the peace' (Drogan, 2016: 955). The background to his "Atoms for Peace" speech before the UN General Assembly on December 8, 1953, is not widely known or understood, as only a very small group of presidential advisers was aware of it in advance. It has been described as a public relations event (Drogan, 2016: 950). Yet the context and background to the meeting is worth considering as it relates to the emerging balance of power. Certain events leading up to the speech influenced the agenda in 1953—the proposals for the establishment of a European Defence Community (EDC) on continental Europe and the creation of a European Army were at a delicate stage; there was a general feeling that with Stalin's death and the Korean Armistice, there was a moment for a constructive East-West dialogue with the Soviet Union (Young, 1996:217; Drogan, 2016).

There was a feeling that Khrushchev was winning friends in the international community with his rejection of the Stalinist class struggle in favour (publicly) of a policy of peaceful coexistence (Windt, 1971). With Eisenhower now in the White House and his old friend, Winston Churchill, back in Downing Street, there was a belief this could be a moment for the U.S. to try and seize back the initiative.

The speech followed the day after the conclusion of a successful summit on Bermuda of the 'Big Three' Western powers of the U.S.A, Britain and France. The proposal by Eisenhower was: (1) for nuclear weapons states to make contributions of uranium and fissionable materials to a new international atomic energy agency established under the UN and that the agency would then allocate fissionable material to serve peaceful purposes such as power generation, agriculture, medicine and peaceful research (as The Baruch Plan had proposed). (2), to begin to diminish the stockpiles of the world's atomic stockpiles (as The Baruch Plan had proposed). (3) to demonstrate that the great powers

are interested in meeting human aspirations first rather than building armaments for war; (4) to open a new channel of East-West dialogue to try and solve problems through public and private conversations. Eisenhower concluded his speech:

the United States pledges before you, and therefore before the world, its determination to help solve the fearful atomic dilemma—to devote its entire heart and mind to finding a way by which the miraculous inventiveness of man shall not be dedicated to his death, but consecrated to his life.²⁴

Despite capturing headlines worldwide, the speech could not result in immediate actions because few outside the president's inner circle knew what it meant. The U.S. Atomic Energy Commission was asked to come forward with plans. Congress awaited legislation to consider. The Soviets waited for the talks to begin. Henry Cabot Lodge Jr., the U.S. ambassador to the UN, said that the historic speech was turning into a "pitiful anti-climax" (Drogan, 2016:956).

U.S. momentum was further blown off course with the *Castle Bravo* thermonuclear test in the Marshall Islands on 1 March 1954.²⁵ The device was expected to yield an explosive power of 5 megatons, around 350 times the power of the Hiroshima bomb, but it unexpectedly caused a 15-megaton explosion, over 1000 times the power of Hiroshima. The radiation fallout affected residents of the Marshall Islands, U.S. military personnel, and twenty-three members of a Japanese fishing vessel, one of whom died. The Marshall Islands petitioned the UN to have H-bomb tests banned (Drogan, 2016:957). There were also protests from Japan, India and even Britain and it was seized upon by the Soviets at the UN.

There would be parallels between Eisenhower's Atoms for Peace and Obama's later Prague Agenda in two respects. First, they were both widely misunderstood at the time and second, they resulted in unprecedented expansions of U.S. nuclear capabilities. In Eisenhower's case, in the nuclear stockpile (see Illustration 12 below), and in Obama's case, the USD\$1 trillion nuclear modernisation programme, which latest estimates now put at USD\$ 2 trillion.²⁶ What these two initiatives also underscore is the United States leadership of the INWO in that both initiatives were widely welcomed by the international

²⁴ Dwight D. Eisenhower [address](#) to the UN General Assembly 8 December 1953

²⁵ The Marshall Islands later brought a case before the ICJ (2015) in which they pointed out that 'Within hours, the atoll was covered with a fine, white powdered like substance. *The children thought it was snow. No one knew it was radioactive fallout. And the children played in the snow and the children ate the snow*' CR 2016/2, p.9, para. 2 (deBrum).

²⁶ Wilson, G., 2024. '[America's Nuclear Weapons Quagmire](#)' published 7 August 2024 by The Stimson Center.

community as evidence of the U.S exercising its special responsibilities.²⁷

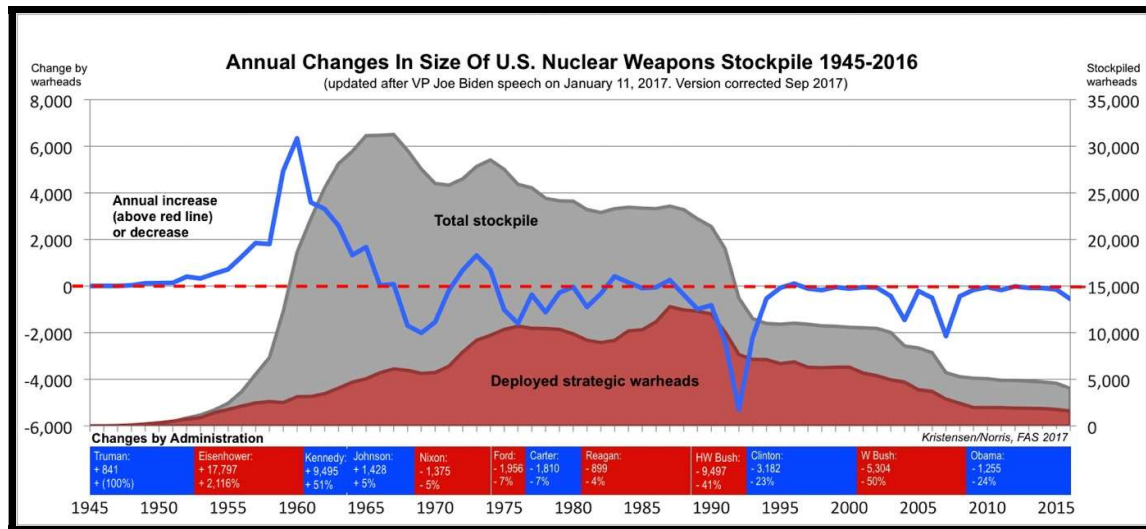


Illustration 13. Annual changes in the U.S. nuclear weapons stockpile (FAS, 2017)

5.7. First Peaceful Uses of Atomic Energy Conference

To regain the initiative of Atoms for Peace, President Eisenhower proposed convening the First International Conference on ‘Peaceful Uses of Atomic Energy’ in Geneva. The conference sought to involve other great powers in preparing for it by establishing an Advisory Committee comprising Brazil, Canada, France, India, the UK, the U.S.SR, and the U.S.A.²⁸ This conference was a success and paved the way for the establishment of the International Atomic Energy Agency (IAEA) in July 1957, which has become a central part of the international institutional infrastructure. It is a specific institution recognised in the NPT for the safeguarding of nuclear materials and plays a role in non-proliferation, for example in the negotiation and verification of the JCPoA (Iran).

It is a noticeable trend within the international nuclear order that crises will often lead to breakthroughs and agreements. The reason may be that to avert crises, actors are required to communicate, and institutions (primary and secondary) are how coordination problems are resolved (Krasner, 2011:337). It also reflects the work of secondary institutions in carrying out political functions of international society (Donnelly, 2002: 21-3) which include membership and authoritative communication (diplomacy). In the case of the INWO this is centred upon the IAEA and Vienna. Agreements can also be

²⁷ Barack Obama at Prague 2009 said “as nuclear power — as a nuclear power, as the only nuclear power to have used a nuclear weapon, the United States has a moral responsibility to act. We cannot succeed in this endeavor alone, but we can lead it, we can start it”

²⁸ [The Geneva Conference—How it Began](#)—IAEA Archive accessed 28 June 2023

initiated in a spirit of contrition when a great power has seen its legitimacy questioned through acts or actions, reminding us of that legitimacy and great power status are conferred by the wider international society (Clark, 2005: 245).

In terms of great power management, there were important developments, especially in relation to the British nuclear deterrent linked to the Atoms for Peace speech. The first was the repeal of the restrictions on U.S. sharing nuclear materials and know-how. The next would be the UK-U.S. Mutual Defence Agreement (1958), which is still in force. The change in policy by the U.S. reflected a change. The launch of the Sputnik satellite a year later revived the Anglo-American relationship. It brought London and Washington closer than ever (though after Suez (1956) and through the Polaris Agreement (1964) the nuclear relationship from a UK perspective came a more subordinate one). It was not the satellite which 'spooked' the U.S. and NATO. It was the rocket which carried it into orbit and a well-founded belief that if it could carry a satellite, it could carry a nuclear warhead—an intercontinental ballistic missile (ICBM).

5.8. Testing international opinion

It is a familiar saying in the world of nuclear weapons that a nuclear bomb 'may only have been detonated in war twice, but nuclear weapons as an instrument of coercion, deterrence and prestige in foreign policy are used all the time'. An example was the Second Taiwan Straits Crisis (1958) over Quemoy and Matsu—the first since the establishment of the Sino-American Mutual Defence Treaty, signed in 1955. Concern mounted within the U.S. government that an option to use 'tactical' nuclear weapons against targets on the Chinese mainland responsible for shelling Quemoy should be considered. U.S. nuclear weapons were deployed in Taiwan from January 1960 until July 1974.²⁹

There was a growing backdrop of condemnation of atmospheric tests of nuclear weapons in the international community, and that concern had been growing and becoming more vocal since the Castle Bravo test in the Marshall Islands in 1954 and their subsequent petitioning of the UN for a nuclear test ban. This cause was taken up by the Republic of Ireland at the UN, who had only been a member since 1955. Being outside NATO, the Irish were determined to tread an independent path.

²⁹ ['Nukes in Taiwan'](#) by Hans Kristensen, published by Federation of American Scientists 13 May 2008

5.9. *The Irish Question*

Frank Aiken (deputy prime minister and minister of external affairs, 1951-54 and 1957-1969) was the driving force behind the initiative. Aiken was a man of 'commanding authority, keen intelligence, a reflective turn of mind, tenacity and courage' (Chossudovsky, 1990: 112). What became known as the 'Irish Question' at the UN General Assembly was a resolution proposed by Aiken in 1958 and then again in 1959, 1960, and 1961. The resolutions were recognised as firmly putting nuclear non-proliferation 'on the UN agenda' (O'Driscoll and Walsh, 2014: 102). Against this background, the great nuclear powers (U.S., Soviet Union and UK) decided to act, perhaps pre-emptively, on the issue of disarmament and non-proliferation raised in the Irish resolution. Under the auspices of the UN, they agreed to the establishment of a *Conference on the Discontinuance of Nuclear Tests* and a subsequent moratorium on nuclear tests, which later (1963) became the Partial Test Ban Treaty. In this act it is possible we witnessed an effort at securing legitimacy (Clark, 2005: 245) within the international community; exercising self-restraint (Hurrell, 2007: 282) and a recognition that 'legitimacy of the institution of great powers depends on how far they can make their special privileges acceptable to others' (Wheeler and Dunne, 1996: 96). Those 'others' were living under the same threat but without the power to do anything about it. As UN Secretary General Javier Perz de Cuellar put it in 1984:

I see delegations of 159 member nations....And all of them live under the nuclear threat. As Secretary General of this organisation, with no allegiance except the common interest, I feel the question may justifiably be put to the leading nuclear powers: By what right do they decide the fate of humanity? (quoted in Nye, 1988:81)

This statement can be read as encapsulating the tension between 'order' and 'justice' in the INWO. The 'justice' argument which would later become part of the Humanitarian Initiative and ultimately the Treaty on the Prohibition of Nuclear Weapons (2016). Douglas Lackey famously summed up this perspective when he wrote, 'The American and Soviet people, it seems, are seizing the benefits of deterrence whilst passing the risks to third parties. Thus, nuclear weapons systems certainly do inflict an injustice upon them.' (1986: 187).

6. The Cuban Missile Crisis

We may anticipate a state of affairs in which the two Great Powers will each be in a position to put an end to the civilisation and life of the other, though not without risking its own. We may be likened to two scorpions in a bottle, each capable of killing the other, but only at the risk of his own life

Dr Robert Oppenheimer³⁰

6.1. Background to events

A succession of crises was to bring the informal moratorium on nuclear testing of 1958 to an end in 1961. The Potsdam Conference in 1945 had agreed between the wartime allies that Berlin should be divided into four zones managed by the Soviet Union, United States, UK and France. East Berlin was under Soviet control. The agreement was that there should be free movement of peoples between the four occupied zones. At their first summit in Vienna in June 1961, Khrushchev presented newly elected president, J.F. Kennedy, with the ultimatum for U.S., UK and French military forces to withdraw from Berlin within six months. The British were in favour of a negotiated solution. However, Kennedy was under domestic pressure following the failure of the American-backed Bay of Pigs invasion of Cuba to set a firm tone in his first crisis with Khrushchev. On 12 August 1961, East Berlin Mayor Walter Ulbricht ordered that the border between East and West Berlin be closed, and a Wall erected—the rest is history. The next summit between the leaders of the U.S. and the Soviet Union would not take place for six years, in 1967. (Carmichael, 2011; Slusser, 2019; Toshihiko, 2010; Williamson, 2010).

Thomas Schelling, the American economist who applied game theory to nuclear strategy in *The Strategy of Conflict* (1960) and later *Arms and Influence* (1966) was brought in to advise the U.S. president on 'Nuclear Strategy in the Berlin Crisis'—he submitted his proposals on 5 July 1961.³¹ In his paper, Schelling concluded that the U.S. should prepare its nuclear forces for a 'war of nerve, of demonstration and of bargaining'. It proved to be the case and that 'war of nerve' anticipated by Schelling was to come to a head in September and October 1962, but not in Berlin, but rather in Cuba in what was described as the 'Greatest crisis of the nuclear age' (Freedman and Michaels, 2019: 274).

Following conclusive proof from satellite photos that the Soviet Union were building sites for medium and intermediate range missiles (MRBM and IRBM) capable of carrying nuclear warheads 90 miles off the Florida coast. Kennedy was compelled to act. For Khrushchev this was a fulfilment of a promise to an ally, Cuba, to defend her territory against U.S.

³⁰ Oppenheimer, R., 1953 '[Atomic Weapons and American policy](#)', *Foreign Affairs*, XXXI:4 (July), p. 529

³¹ '[Nuclear Strategy and the Berlin Crisis](#)'—5 July 1961

invasion made in the aftermath of the Bay of Pigs invasion a year earlier and in much the same way that the U.S. had defended Taiwan in 1954 and 1958—though China at that point was not a nuclear power—the U.S. was the preeminent nuclear power. The ‘American view was that the Soviet Union was failing to respect an established sphere of American influence’ (Bull, 1977:203) and the Monroe Doctrine.³²The tactic decided upon was naval ‘blockade,’ though this would be an ‘act of war’ under international law. So, the term ‘quarantine’ was used instead, but the effect was the same.

6.2. *All eyes on the OAS*

It is instructive for the wider argument about the existence of primary institutions and universal values to reflect briefly on the quarantine and its role in the Cuban Missile Crisis. Firstly, the route for authorising the action was taken through the Council of the Organisation of American States (OAS), as any move through the UN Security Council would be vetoed by the Soviet Union. The OAS had expelled Cuba as a member earlier in 1962.

The ‘quarantine’ was justified because it was partial, applying only to offensive weapons; that it was authorised by the OAS Council; and that it was consistent with Article 51 authorising self-defence in the UN Charter (Wilson, 1965: 486). Those who opposed the ‘quarantine,’ most notably University of Chicago professor Quincy Wright, argued that the evidence which the U.S. was using for justification was ‘illegally obtained’ by aerial surveillance and that the weapons being supplied were for Cuban self-defence’ against a renewed attempted invasion by the U.S. (1965: 488). The ‘quarantine’ worked, the Soviet Union backed down, the quarantine was lifted after 28 days, and the world breathed a sigh of relief. A.J.P. Taylor was to describe the crisis as “the two most important weeks in human history” (cited in Wilson, 2013: 68).

6.3. *Belief in rationality shaken*

Roger Hilsman, Director of the U.S. State Department’s Bureau of Intelligence and Research under Kennedy and during the crisis, reflected:

Before the Cuban missile crisis, most American officials ... assumed that to keep peace all that was required was to make certain its nuclear forces were adequate. But during the Cuban missile crisis, the leaders of both sides probed the awesome dimensions of what they faced and drew back. (1999:74-76).

³² The Monroe Doctrine, named after US president James Monroe (1817-1825) held that any foreign intervention/interference in the Americas would be regarded as a hostile act against the United States

Louis Halle claimed that the crisis had been a turning point in relations between the U.S. and U.S.S.R and that the “shared experience of so great a danger proved to be an unexpected bond between them” (1967: 408). The point was that this was a human and social experience to step back from the brink. It is indicative of a rationality amongst actors and agents. The guru of nuclear deterrence theory in the UK and NATO was Sir Michael Quinlan, a former permanent secretary at the Ministry of Defence (1988-1992), who declared:

Only a state possessed by a reckless lunacy scarcely paralleled even in pre-nuclear history would contemplate with equanimity initiating a conflict that seemed likely to bring nuclear weapons down on his country. (Quinlan, 2009:27)

Bull similarly qualifies this position:

When we say it is irrational for a statesman to choose to bring about the destruction or devastation of his own country, all we mean is that such an action is not consistent with the goals which statesmen are normally expected to pursue. It does not mean that they will not act this way or have not acted this way in the past (1977:121).

Stanley Hoffman said of Hedley Bull:

[He] was no believer in the ordinary rationality of states, nor in the usefulness of developing prescriptions for rational action, because he was even more pessimistic than the realists. To them, departures from the norm are exceptions; to Hedley Bull, stupidity, folly, miscalculations, and mischief were always possible (Bull, 1990: 15).

6.4. *‘Never let a crisis go to waste’*³³

The Cuban Missile Crisis (1962) was to have a much broader effect than the respective reputations of the two principal protagonists. It resulted in soul-searching by the United States and the Soviet Union when they realised how close they had come to a full nuclear exchange. One innovation was the Hotline Agreement of 1963, which established a direct communication line between the Kremlin in Moscow and the Pentagon in Washington. This was an example of what Hedley Bull identified as ‘the measures the great powers take, separately or jointly, to promote their common interests in avoiding crises involving the danger of war’. (Bull, 1977: 202). and Bull’s further claim that the first part of Great Power Management is for great powers to manage relations between themselves (ref). It is an argument of this research that crises can be catalyst for progress, as Alagappa puts it, ‘the construction of order is a historical process in which intersubjective

³³ Attributed to Sir Winston Churchill

understandings.... are reached through struggle, conflict, accommodation' (Alagappa, 2003: 39).

Crises capture the attention of leaders and compel them to act, mostly because of domestic opinion, but also to preserve their international legitimacy. The results in the INWO often are not restatements of previous agreements, but rather a preference for new ones. These are accompanied by reassuring televised signing ceremonies seeking to convince a terrified world that 'the two sworn enemies standing waist deep in gasoline, one with three matches and the other with five'³⁴ aren't about to strike them.

Having clear lines of communication during crises, especially between adversaries, was an example of societal learning and progress in solving 'coordination and collaboration problems associated with coexistence under anarchy' (Reus-Smit, 1997:557). In subsequent years Hotlines were set up between: Russia and China (1998); India and Pakistan (2004); India and China (2010); China and Taiwan (2015); North and South Korea (2018) in all cases they involve one or two nuclear weapons states and are therefore deemed to be part of the international nuclear order aiding authoritative communications.

6.5. Lessons learned

It is no coincidence that the greatest crisis of the nuclear age should give rise to the greatest progress in the INWO. The journey to the NPT can be traced back to the shock at how close the two nuclear powers came to nuclear war. This shocked the world and the two nuclear-armed belligerents into the belief that something had to change to prevent such events from happening again. This has implications for understanding the nature of the INWO as an evolved rather than a designed system. The greatest weakness of the system before Cuba was the lack of direct communications. This received urgent attention from the Eighteen-Nation Disarmament Committee (ENDC), which was co-chaired by the U.S. and the Soviet Union, and produced a report in April 1963 titled 'Working Paper on Reduction of Accident, Miscalculation or Failure of Communication' (ENDC/70), making several recommendations resulting from the experience of the Cuban Missile Crisis. The ENDC would then prepare the draft for the NPT.

7. The long road to the NPT

Another proposal out of the ENDC response to the crisis was to reinstall the moratorium on nuclear testing. The Partial Test Ban Treaty (PTBT), banning nuclear tests in the

³⁴ Carl Sagan

atmosphere, underwater or in space, but not underground, was agreed between the U.S., UK and the Soviet Union on 26 July 1963. The treaty was then opened for signature with the hope that France, which had tested a nuclear weapon in 1960 and was now seeking to develop a thermonuclear weapon, would sign, but it refused, as did China, which would carry out its first nuclear test a year later in 1964. There are presently 123 state parties to the Treaty, which remains in force (Hopmann and King, 2019).

The continued work of the IAEA and the ENDC on the 'Irish question' and the PTBT meant that the years between 1962 and 1967 were the most propitious for advances in the nuclear order; however, there was no numerical balance of nuclear capabilities. One conclusion may be that numbers of warheads do not contribute to the balance of power calculations in the nuclear order, or, that U.S. dominance gave them to confidence to negotiate, or, that great powers were conscious after the Cuban missile crisis to 'make their privileges acceptable' or legitimate in international society (Wheeler and Dunne, 1996: 96). It was most likely a combination of all these reasons.

7.1. Nuclear-Free Zones

An important initiative to curtail the spread of nuclear weapons that emerged from the Cuban Missile Crisis was the establishment of the Latin America (and Caribbean) Nuclear Free Zone (The Treaty of Tlatelolco) in February 1967. The LANFZ, an initiative of Mexico, provided guarantees that signatories will not seek to acquire nuclear weapons in exchange for guarantees from nuclear weapons states that they will not use them against signatories. This is significant as it demonstrates that the great nuclear powers were exercising restraint and seeking to assuage concerns on NNWS to preserve the privileges in the system.

The LANFZ then became the model for other nuclear-free zones: South Pacific (1985); Southeast Asia (1997); Africa (2009); and Central Asia (2009). A Middle East Nuclear Free Zone was first proposed in 1974 and is currently being negotiated through the civil society Middle East Treaty Organisation (METO) established in 2017, and at an Annual Conference on a Weapons of Mass Destruction Free Zone in the Middle East convened by the UN General Assembly in 2018. It is instructive for the wider thesis that the 2018 resolution proposing the MENFZ, introduced at the UNGA by Egypt on behalf of the Arab League, was accepted by 174 votes in favour and only two against: the United States and Israel.³⁵ Of the P-5, China, France and Russia voted in favour and the UK abstained. This again demonstrates that without the U.S. nothing is possible, but should the U.S.

³⁵ UNGA Resolution A/C.1/73/L.1 vote 1 November 2018

support the MENFZ then it could be. There are currently 115 states covered by nuclear-free zones.³⁶

7.2. The Nuclear Non-Proliferation Treaty

The Nuclear Non-proliferation Treaty is the undoubted centrepiece/cornerstone of the international institutional nuclear order. It is a legal and diplomatic umbrella under which most nuclear arms control treaties, controls of materials and technology, and the expansion of civilian nuclear energy programmes have been conducted since its inception in 1970. It has provided a space distinct from the UNGA and the Conference on Disarmament, both of which have wider arms control mandates to focus on the control of nuclear weapons specifically. It is, as all institutions are, limited by two factors, which we will discuss later—membership and consensus.

Much has been written in extensive detail about the path to the NPT and its subsequent operations (Joyner, 2009; Pant, 2012; Müller, Fischer & Kötter, 1994; Popp, Horowitz & Wenger, 2016; Bellany, Blacker & Gallacher, 1985; Narang, Gartzke & Kroenig, 2015; Blechman & Bollfrass, 2010; Simpson, 1987; Ghāli, 1995; Fry, Keatinge & Rotblat, 2012; Njølstad, 2010)—it is not the purpose of this analysis to add to that volume of material, but instead to explore, using the English school theoretical framework of ‘rationalism’ and its corresponding belief in a society of sovereign states, a *via media* of rationalism and the existence of certain universal values, norms and rules which together form certain primary institutions and give rise to creation of secondary institutions (international organisations) for specific purposes.

7.3. Structure of the NPT

It is important to have a brief overview of the structures of the NPT at this stage before delving more searchingly into the role of great power management, balance of power and events in bringing this ‘Grand Bargain’ of the international nuclear order about. The NPT has three pillars:

1. Non-proliferation of nuclear weapons (Articles I, II, III and V)
2. Disarmament of nuclear weapons (Article VI)
3. Peaceful use of nuclear power (Article IV)

It is crucial to draw a distinction between Resolution 1665 (The Irish Question), which had secured the unanimous backing of the UN General Assembly in December 1961, and

³⁶ Arms Control Association [Fact Sheet on Nuclear Free Zones](#) (March 2022).

the final text of the NPT. The problem the original resolution was concerned with was the non-proliferation of nuclear weapons. At that time, there were four nuclear states, but there were fears that this may reach as many as 25-30 over the next twenty years as the technology became more widely known and the costs of construction reduced. For the superpower blocs, the concern was to conclude a non-proliferation treaty before other states (Israel, India, South Africa, Sweden) acquired the capability and, therefore, to preserve their advantage in the system.

Article VI is, without doubt, the most frequently debated article of the NPT. The debate stems from the shift in wording from previous articles being clear on 'not to transfer' 'not to develop' 'not to receive' 'shall enter into an agreement with the IEAE' and then comes Article 6 and there is decisive shift to 'pursue in good faith'. It has been argued that this was an attempt by some NNWS such as India, Sweden, and the then United Arab Republic to establish a clear linkage in the NPT between non-proliferation and disarmament (Ford, 2007:406). Ford went on to argue that whilst Article VI was an 'ultimate goal', the drafters of the NPT recognised that it could not be achieved through the NPT itself (Ford, 2007: 409).

8. Decline in salience of nuclear gives rise to arms control progress

In the late 1960s and early 1970s, significant events were underway, as the evolution of the order is argued to be historically contingent. The United States was locked into the Vietnam conflict, which was widening into Cambodia and Laos and sapping public morale domestically in the process. The Soviet Union was not without its problems either, in the criticism it received from traditional allies over its intervention in Czechoslovakia in 1968. The invasion was criticised by Zhou Enlai, premier of the People's Republic of China (PRC) and led to a brief Sino-Soviet border conflict in 1969. Beijing became increasingly concerned about the possibility of a pre-emptive nuclear strike on its nuclear installations in Xinjiang (Gerson, 2010: 41). This had implications for the global order and the INWO. It led to the rapprochement between the U.S. and the PRC as the U.S. sought to exploit the split. It would lead to the PRC replacing the ROC as a permanent member of the UNSC. However, the PRC would not join the NPT until 1992.

8.1. SALT and light

Against this backdrop of great power enmity, the U.S. and Soviet Union also opened the first Strategic Arms Limitations Talks (SALT), symbolically at the 1968 signing ceremony for the NPT, and then formally in Helsinki in 1969. The SALT agreement between the U.S.

and Soviet Union would last for thirty years and addressed the issue of anti-ballistic missile systems (ABM).

Nuclear deterrence is unique in that it involves parties maintaining their vulnerability to nuclear attack through the promise of an 'assured second strike', placing an unacceptable cost on the aggressor—hence, mutual assured destruction (MAD). SALT I was, therefore, designed to limit the number of anti-ballistic missile systems and, as such, maintain an assured mutual vulnerability to a second strike. The technology of ABM systems is still evolving, but in 1970-1972, it was a new technology which both sides feared could upset the delicate 'balance of terror'. Agreement on SALT I led to the immediate commencement of a further agreement SALT II (1972-1979). The SALT II agreement which restricted numbers of launch vehicles, the development of new weapons and on Multiple Independently Targetable Re-entry Vehicles (MIRVs) was signed in 1979 but never ratified due to the Soviet invasion of Afghanistan.

John D. Maurer, drawing on newly released sources from the time, concludes that whilst the language of the SALT arms control negotiations was about cooperation:

Behind closed doors, rather than promoting cooperation, Nixon and his closest advisers saw SALT as an opportunity to continue the nuclear competition on America's terms (Maurer, 2022:3-4).

We can know these things because the United States is an open society, but we can infer that similar public (cooperative) and private (competitive) strategies were also being employed by Soviet negotiators. Richard Little (reference needed) has written about the Soviet approach to nuclear strategy. However, a RAND paper of 1976 seeking to understand Soviet nuclear strategy described it as remarkably 'straight forward' in that 'Once deterrence fails, nuclear weapons are to be used with whatever intensity is necessary to defeat the enemy militarily' (Lambeth, 1976: 35). This is significant as it raises a question as to how sacrosanct the 'nuclear taboo' was in Soviet military planning. John Lewis Gaddis in a reflective book on the Cold War based on access to Soviet archives *We Now Know: Rethinking Cold War History* (1997) concluded that the Soviets believed that the nuclear weapons were too devastating to use, but that their prominence in Soviet power projection was to conceal their conventional and economic weakness (1997: 222).

8.2. Peaceful nuclear explosion?

The next crisis to face the nuclear order was not from the U.S. or the Soviets but from India's decision to carry out a 'Peaceful Nuclear Explosion' (PNE) on 18 May 1974. The UK Foreign and Commonwealth Office believed 'the NPT's status was paramount, and that the Indian explosion represented a tipping point that threatened to lead to a

proliferation cascade' (Craig 2017: 24). The debate around PNEs is an interesting one to explore as it exposes how the nuclear order is shaped by great power pragmatism and language. The term 'peaceful nuclear explosion' was not invented by India in 1974; the U.S. and Soviet Union invented it to cover a nuclear explosion that was not a 'test' and was not for 'military use' and covered possibilities such as large civil construction/infrastructure projects and mining. This is interesting in that it underscores how great powers seek to shape the INWO to serve their interests or perhaps sidestep a thorny diplomatic issue.

The U.S. carried out PNEs under Project Ploughshare involving 27 explosions. The Soviet programme was much larger, known as Nuclear Explosions for the National Economy, and it carried out 239 PNEs. PNEs were also, to accommodate the Soviet Union and the U.S., a recognised category in IAEA proceedings and incorporated into Article V of the NPT (Sarkar, 2013:326; Warnke, 2016:114-115; Bartels, 1968:1031). The shock at the Indian PNE was to begin a period of examination of the safeguards agreements and the role of the Zangger Committee in controlling the materials used. Canada was particularly embarrassed by the Indian PNE as it had supplied India with a CIRUS reactor (Joshi, 2018:1076). For the U.S. and Soviets, it was more of a concern that India had exposed a loophole in the INWO, which others may seek to exploit. As we have seen before, crises equal progress in the INWO, and the PNE became a catalyst for the Threshold Test Ban Treaty.

8.3. Problems lead to progress in the INWO

As a direct result of the PNE, seven major supplier countries: Canada, West Germany, France, Japan, the Soviet Union, the United Kingdom, and the United States began a series of meetings in London in 1975, which would continue until 1978, when it became the Nuclear Suppliers Group (NSG). The NSG now has 48 member states and still meets, as does the Zangger Committee. In a further example of how crises act as catalysts for actions by great powers, after the Indian PNE, the United States and Soviet Union concluded the Threshold Test Ban Treaty (TTBT) in July 1974 followed by The Peaceful Nuclear Explosion Treaty (1976). The TTBT sought to limit the strength of underground tests to 150kt. It is a further example of evolution rather than design in the INWO. However, disagreements over the verification mechanisms for monitoring tests meant that the TTBT did not take effect until 1990. A less ambitious agreement was tried to

plug the PNE gap, the Treaty on Underground Nuclear Explosions for Peaceful Purposes of 1976—though this treaty also failed to come into effect until 1990.³⁷

9. Reagan-Gorbachev era

By 1979, concern was increasing at the growing imbalance in Europe with the deployment of Soviet intermediate-range nuclear weapons (e.g. SS20) in central and Eastern Europe as part of an escalation which believed that a limited nuclear war could be fought in Europe. NATO responded with a so-called Dual-Track Decision in December 1979. The 'double track' was a threat to deploy American Pershing II and Cruise Missiles to Europe to restore a power balance there and, at the same time, open negotiations with the Soviets for the removal of this class³⁸ of intermediate range nuclear weapons altogether. In June 1980, the UK government announced that 160 American Cruise missiles would be in the UK at RAF Greenham Common.

9.1. Star Wars

Let me share with you a vision of the future which offers hope. It is that we embark on a programme to counter the awesome military threat with measures that are defensive....I call upon the scientific community in this country, who gave us nuclear weapons,....to give us the means of rendering these weapons impotent and obsolete.³⁹ Ronald Reagan

In March 1983, Ronald Regan was to introduce the prospect of a 'game changer' new technology called the Strategic Defence Initiative (SDI) and dubbed 'Star Wars'. The SDI announcement was to seize the initiative from the Soviets and create an incentive for both sides to return to arms control negotiations. The responses to the announcement were broadly divided between those who doubted the technology could be developed, calling it a '1980s version of the Maginot Line' (Sherif and Chang, 1984: 527) and those who felt it had the potential to undermine the delicate balance of nuclear deterrence in potentially denying the Soviet Union an 'assured second strike capability' and therefore ending MAD (Mutually Assured Destruction) (Fischer, 2019:60). This is significant in that it demonstrates the underlying rule of 'mutually assured vulnerability' to making deterrence work. It is an almost 'gentlemanly' code akin to the unacceptability of nineteenth-century dualists arriving wearing a bulletproof vest.

Kenneth Payne referred to this as the 'Assured Vulnerability Paradigm', which he believed encompassed three alternative approaches to deterrence: warfighting, minimum

³⁷ NTI—[PNE Treaty](#)—accessed 27 March 2023

³⁸ Intermediate-range nuclear weapons with a range of between 1000km to 5500km

³⁹ [Presidential televised address](#)—23 March 1983

deterrence and Mutually Assured Destruction (1996: 60-61). Willie Curtis pointed out that the underlying assumption of assured vulnerability was one of 'rationality' (2020: 245). Stephen Maxwell referred to rationality in a nuclear deterrence context as something more than wise; it is 'moral' (1994: 3), which invokes normative and value-based judgements, pointing to the social make-up of international society.

9.2. Geneva breakthrough

In December 1984, Mikhail Gorbachev, then chair of the Foreign Affairs Committee in the Soviet legislature, had been invited to the UK and met with Margaret Thatcher, who famously dubbed him, 'a man we can do business with.'⁴⁰ In March 1985, Gorbachev became General Secretary of the Soviet Union. The first summit between Reagan and Gorbachev occurred in Geneva in November 1985. The final joint communique contained one of the most famous phrases in the nuclear lexicon often repeated by NWS and NNWS alike:

The sides, having discussed key security issues and conscious of the special responsibility of the U.S.S.R and the U.S. for maintaining peace, have agreed that *a nuclear war cannot be won and must never be fought*⁴¹

This statement is indicative of great power management in that it uses the term responsibility for maintaining peace. Moreover, when this statement was made there were at least six nuclear weapons states, but the responsibility for maintaining peace fell to the United States and Soviet Union and was accepted by them.

The result of the Geneva Summit in November 1985 was to see a resumption of the Strategic Arms Reduction Talks (START) that had been suspended the previous January. These talks eventually led to the Reykjavik Summit of October 1986, but it foundered upon the U.S.'s insistence on preserving the SDI. (Freedman and Michaels, 2019: 541). Substantial/breakthrough agreements were signed in December 1987 between the two leaders in agreeing the Intermediate-range Nuclear Forces Treaty (INF). The INF was the first time the U.S. and Soviet Union had agreed to eliminate whole classes of nuclear weapons (short-medium range and intermediate-range) and employ extensive on-site verification and inspections and is one of the most successful and far-reaching treaties of the nuclear order until 2019 when the U.S. withdrew citing that the Russians were cheating.⁴²

⁴⁰ Margaret Thatcher in a BBC tv interview with John Cole on 17 December 1984 accessed from Margaret Thatcher Foundation.

⁴¹ [Joint US-Soviet Statement on the Summit Meeting in Geneva](#)—21 November 1985 (emphasis added)

⁴² Arms Control Association Fact Sheet—[INF Treaty \(1987\)](#)—published August 2019

10. End of the Cold War

10.1. The start of the Second Nuclear Age

Paul Bracken has claimed that the First Nuclear Age ended in 1991, shortly after the collapse of the Soviet Union, and the Second Nuclear Age started around the same time. For him, these 'ages' overlapped (2013:97). For Bracken the first nuclear order was the stand-off between the United States and the Soviet Union, and therefore, the actors would change, and therefore, the game would change. In the 'Second Nuclear Age', there would be three more declared nuclear powers: India (1998), Pakistan (1998), and North Korea (2006). Yet, that number could have been far greater without a remarkable series of negotiations under the Lisbon Protocol (1992). This periodisation of the first and second nuclear ages is contested. Sarah Kutchesfahani sees three phases: 1945-1959; 1960-1989 and 1990-present. However, in the narrative of the evolution of the INWO outlined here there would be an argument for four ages to be: 1939-1945 (The Race for the Bomb); 1945-1962 (The struggle for nuclear supremacy); 1962-1991 (Cuba to Lisbon via the NPT); 1991-present (Nuclear security and non-proliferation).

10.2. 'Golden era' of nuclear arms control

The Lisbon Protocol would be an example of what Hedley Bull would call the 'great responsibilities' in the actions of great powers working together to maintain order in the system following the collapse of the Soviet Union. Following the collapse of the Soviet Union in December 1991, the new independent states of Belarus, Kazakhstan and Ukraine together possessed over 3000 strategic nuclear weapons (capable of striking the United States) and over 3000 battlefield nuclear weapons. The Lisbon Protocol began with two major arms control initiatives under the former Soviet Union in May and September 1991. The first was the new START I limiting deployed warheads. The Presidential Initiatives under which the U.S. agreed to remove and destroy all ground-based, short range nuclear weapons deployed overseas.

It is impossible to overstate the importance of the Nunn-Lugar Act (1991) in this achievement. It was the initiative of two U.S. Senators—Democrat Sam Nunn and Republican Richard Lugar. The resulting Comprehensive Threat Reduction Programme (CTR) of the U.S. sought to support the dismantling and disposal of weapons of mass destruction in fifteen former Soviet states. The programme involved not just nuclear but also chemical and biological weapons. Its initial budget was at USD100 million per year, but this was expanded under George W. Bush with the 2003 Nunn-Lugar Expansion Act, which extended the programme's remit to additional countries such as Albania, Libya,

Iraq and North Korea, and again under Barrack Obama with the further expansion of the CTR program and the Proliferation Security Initiative. The programmes are managed through The Defense Threat Reduction Agency in the U.S. Perhaps its most significant support was in funding civilian employment opportunities for 22,000 former WMD scientists⁴³ (Nayyar,2011). The budget continued to rise, and the remit was extended to cover thirty countries with a budget of circa U.S.D 500 million per year (2014) (Bresolin, 2014).

This is significant in the overall argument of the thesis as it was a forward-looking and highly responsible set of actions which resulted in the American taxpayer paying the Russian military to secure nuclear materials. This action alone would be impossible to conceive under a realist power and capabilities-based order. Yet it does make sense in an international society with Pls of Great Power Management, and concepts of great power responsibility for the safety and security of the wider international society. Such deep and trusting collaboration between nuclear adversaries was possible in 1991 and yet would seem utterly impossible today is something that will be explored in later chapters, especially as we examine the case study on the Prague Agenda and its demise following the Russian invasion of Crimea in 2014.

Momentum was then created so that when the new independent states were established, their nuclear arsenals would be returned to Russia, and they would join the NPT. This happened, and the potential risks of having three new, unstable, nuclear powers with vast arsenals (Ukraine—4175; Kazakhstan-1410; Belarus—825) would make them the third, fourth and fifth largest nuclear powers ahead of China, the UK and France. Moreover, the insecurity of lethal weapons and fissile material and its potential to find its way into the hands of rogue states or non-state actors was averted by the prompt and decisive action of the U.S. and Russia. Taken together, 1991-2001 must qualify as the 'golden era' of nuclear arms control.⁴⁴ It ended with the combination of the 9/11 terrorist attacks and the U.S. withdrawal from the ABM Treaty (2001). There was considerable optimism in the West with the election of Vladimir Putin in 2000. Then Secretary General of NATO, George Robertson, recalled how at his first meeting with President Putin, Putin asked him 'When are you going to invite us to join NATO?'.⁴⁵

⁴³ [Arms Control Association Fact Sheet—Nunn-Lugar](#)—29 March 2022

⁴⁴ Arms Control Today—[The Lisbon Protocol at a Glance](#)—December, 2020

⁴⁵ The Guardian, 2021. '[Ex NATO head says Putin wanted to join the alliance early in his rule](#)' by Jennifer Rankin published 4 November 2021

10.3. Fresh START

In 1993 the United States and the Soviet Union reached further agreement on what was known as Strategic Arms Reduction Treaty II (START II). The treaty differed in its approach from previous treaties in that instead of setting targets for reducing weapons stockpiles, it went for setting a ceiling on the number of nuclear weapons warheads which could be held by either side of between 3800 and 4250. START II never came into force following the U.S. withdrawal from the ABM Treaty in 2002.

This may not have been as catastrophic as it may appear because START I was delivered in 2001 and a more ambitious new treaty, the Moscow Treaty on Strategic Offensive Reductions (SORT), superseded it. Again, we see the preference for making new agreements and organisations rather than struggling to amend existing ones. START II had proposed a ceiling of 3800-4250, SORT proposed 1700 and 2200 operationally deployable warheads by 2012. The SORT was significant as it also established another piece in the international nuclear order, the Bilateral Implementation Commission, which would meet twice a year in Geneva. The treaty entered into force in 2003. SORT continued until 2011 when it too was superseded by New START, which proposed an even lower limit of 1550 deployed warheads.⁴⁶ Whilst this period of 2002-2013 may not have been characterised by the deep levels of cooperation between the U.S. and Russia that marked the previous decade, they did make significant progress, especially in efforts to tackle nuclear terrorism. However, even this more limited cooperation would grind to a halt following the Russian invasion of Crimea in 2014. This is pertinent to the 'cardinal rule' of Great Power Management expressed by Hedley Bull, namely to 'manage their relations with one another' (1977: 201).

10.4. Consensus complications

Whilst the two great powers seemed to be able to agree frequent ambitious new treaties, the multilateral forum of the Conference on Disarmament (CD) had ground to a halt in 1996 over the arrangements for implementing the Fissile Material Cut-off Treaty (1993) and the Comprehensive Test Ban Treaty (1996)—which have not yet come into force. The CD has failed to produce any new nuclear treaty since 1996. The reason for the breakdown of the CD is that it, like the quinquennial NPT Rev Cons (which failed to reach agreement in 2005, 2015 and 2022), relies on a consensus approach (Meyer, 2021:287). In some ways, this suited the great powers as they favoured bilateral

⁴⁶ Arms Control Today—'[Russia Declares itself No Longer Bound by START II](#)' by Wade Boese, July/August/2002

solutions and problem-solving as we will see, primarily through consideration of the Prague Agenda how the Russian approach to negotiation style was to link wider issues in arms control negotiations such as securing WTO membership and the lifting of sanctions in return for support in the UNSC on Iran's nuclear programme. Negotiating bilaterally can allow a broader range of issues to be considered and perhaps resolved. Forums such as the CD, IAEA and NPT Review Conference (RevCon) with their specific remits and statutes can make this more difficult.

10.5. Nuclear security agenda

Following the terrorist attacks on the United States in 2001 and the emergence of the 'War on Terror' there was a renewed focus on the activities of the Pakistani nuclear weapons scientist A.Q. Khan, who had been selling nuclear knowhow to Iran, North Korea and Libya, 'amidst very real concerns that Al Qaeda might get its hands on nuclear weapons' (Corera, 2006: 154). Steve Rademaker, a former U.S. Assistant Secretary of State, warned a conference starkly, 'there can be no doubt that if they (al Qaeda) had got control of a weapon of mass destruction, they would use it.' (Rademaker and Gottemoeller, 2005: 313). The IAEA described A.Q. Khan's activities as a 'Wal-Mart of private sector proliferation' (Allison, 2010:79). Khan was placed under house arrest in Pakistan between 2004 and 2009.

There followed a proliferation of the nuclear security regime aimed at preventing nuclear materials falling into the hands of non-state actors: The Convention on the Physical Protection of Nuclear Material (1987/2016);⁴⁷ The International Partnership for Nuclear Disarmament Verification (2014); The International Convention for the Suppression of Acts of Nuclear Terrorism (2007);⁴⁸ The Stockholm Initiative for Nuclear Disarmament (2019);⁴⁹ The Nuclear Non-proliferation and Disarmament Initiative (2010);⁵⁰ The Nuclear Security Contact Group (2016);⁵¹ The Hague Code of Conduct on Ballistic Missile Proliferation (2002);⁵² The Global Initiative to Combat Nuclear Terrorism (2006);⁵³ Global Partnership Against the Spread of Weapons of Mass Destruction (2002)⁵⁴ (Thakur, 2015:201). These combine and, in many areas, overlap with the Nuclear Suppliers Group,

⁴⁷ IAEA--[Convention on the Physical Protection of Nuclear Material & its Amendment](#)

⁴⁸ NTI-[International Convention for the Suppression of Acts of Nuclear Terrorism](#)

⁴⁹ Government Offices of Sweden—[The Stockholm Initiative for Nuclear Disarmament](#)

⁵⁰ NTI—[The Nuclear Nonproliferation and Disarmament Initiative](#)

⁵¹ Nuclear Security Contact Group--[about](#)

⁵² Hague Code of Conduct about Ballistic Missile Proliferation--[about](#)

⁵³ The Global Initiative to Combat nuclear Terrorism--[overview](#)

⁵⁴ Global Partnership Against the Spread of Weapons of Mass Destruction--[Home](#)

and the Zangger Committee continues to play a crucial role in the international nuclear order alongside the IAEA and EURATOM.

These various initiatives are backed up by several multilateral instruments: UNSC 1373, which calls for all states to become parties to the relevant protocols and conventions relating to terrorism, and UNSC 1540, which requires states to take appropriate and effective measures to prevent any nonstate actor from acquiring nuclear weapons. The strength of these two resolutions is that they apply to all UN member states, not just parties to the NPT or other treaties. Their weakness, on the other hand, has been noted as being their 'unclear obligations, many of which are voluntary and insufficient monitoring of implementation' (Boureston and Ogilvie-White, 2010: 2).

What this tells us about the INWO at this time is that national interests will invariably create tensions with international interests. By the early 2000s the U.S. was engaged in two wars under the general Global War on Terror. The INWO was weakened because the Global Order had been weakened. Bull's 'common interests', 'common values' and 'common rules' (1977: 13) were less evident with the notable exception of nuclear terrorism. War in this sense was the enemy of order. When states act alone and disregard even the concerns of allies (as in the case of the U.S. invasion of Iraq i.e. France, Germany and Turkey, or, the Russian invasion of Ukraine), then order becomes disorder, and insecurity increases in the system. The empirical evidence for this claim would be the counter-factual that if the U.S. had not invaded Iraq (2003), if NATO had not exceeded its UN mandate Libya in 2011 and if Russia had not invaded Ukraine in 2014 and again in 2023, then the INWO would be in better shape.

11. Conclusion

The English School approach is to ground current events in their historical context, from which we can interpret their meaning. The weighting, therefore, of the historical account towards the early years of the INWO, especially 1940-2001, is intentional as it was during this period that the bulk of the norms, rules and institutions of the current INWO were established. The chronological account could have been deepened from 2001 onwards to take account of the scale of initiatives and activities to combat the threat of nuclear terrorism, however, this part of the history of the INWO will be developed later in the thesis, especially when we come to the case study on the Prague Agenda in Chapter 6 and the case study on the P-5 process in Chapter 7.

What we have seen through this historical interpretation of events is that the current INWO has evolved over time because of technological progress and security crises. A

familiar pattern emerges, characterised by crisis/confrontation/solution. Whilst the INWO marches to a different beat, it is played out on familiar drums. Those drums are the Pls of international society. However, as we have seen these drums are tuned differently in the INWO in that war becomes better understood as war avoidance; balance of power can be achieved with a single nuclear weapon and great power management is distinctive. Not all great powers in the INWO are managers. To manage is to accept responsibility for the wider nuclear order. By this definition, there have only really been two countries that have taken on this role: The United States and the Soviet Union/Russia. However, this is not to suggest that it is an equal partnership. This is a hegemonic order in which the U.S. leads, but in partnership with its junior partner, Russia. This is important because as Adam Watson noted 'Hegemonic influence can modify the behaviour of other states, and the system itself' (2007: 104). We shall explore this dominance of the U.S. further in Chapter 4 on the nuclear order and Chapter 5 on great power management. What we have done in this chapter is demonstrated how that hegemony evolved over time.

As we are engaging in historiography the division in the periods of the evolution of the order help break it into discrete chapters. The most famous division of the period was outlined by Paul Bracken with his description of the second nuclear age beginning in 1991 (2013). Yet what has been argued for here is a more nuanced division. Sara Kutchesfahani made the case for inserting a third nuclear age (1945-1959) and then a fourth from 1960-1990. The division suggested by Kutchesfahani is closer to that which is argued for here. Whilst there is a strong case for pointing to events such as the establishment of the IAEA in 1957 and the 'Sputnik moment' of 1957, it is argued here that the dividing point should be 1962 and the Cuban Missile Crisis. Moreover, it is argued that the period of development and the use of the first atomic bomb between 1939 and 1945 is foundational for establishing U.S. technological and military dominance of the nuclear order. Finally, the claims are made of a 'golden era' in nuclear arms control between 1991 and 2001. This would be contested but it is significant because it shows what can be achieved when common interests lead to common actions.

One of the aims of the chapter was to set out how certain norms of the INWO such as 'non-use' and 'non-proliferation', 'assured vulnerability' and 'extended deterrence' have emerged over time. We witnessed a clear link between the aftershock of the Cuban Missile Crisis and the movement to strengthen U.S. and Soviet bilateral communication and arms control; the development of the NPT as a central tool for the nuclear 'haves' to impose a 'non-proliferation' norm on the 'have-nots'. It also led to the rejection of the legitimacy of nuclear weapons through initiatives such as the Latin America & Caribbean Nuclear

Free Zone through the 1967 Treaty of Tlatelolco and strengthened civil society movements against nuclear weapons, such as the CNDs Aldermaston Marches (1959-1965). At the root of the shift in attitudes to nuclear weapons was a profound loss of faith in human rationality because of the Cuban Missile Crisis. Rationalism is at the heart of the ES beliefs about how states relate to one another and problem-solve in international society. Yet, it is a paradox that twelve days of irrationality should be a spur for states to seek rational alternatives to nuclear war through PIs and the establishment of SIs and norms. It is reflective of Tim Dunne's view that 'The rationalist desire for international order is constantly undermined by the realist pursuit of self-interest and the revolutionist quest for transnational justice' (1998: 8).

Having looked at the origins of the ES approach and the evolution of the international nuclear order, we have formed a theoretical and contextual foundation from which to develop specific research questions. We have also made several analytical claims about the nature of the INWO that draw upon ES theory and concepts. These include how some PIs need to be understood in distinctive ways in the INWO, which makes the INWO unique. We have explored the centrality of the United States to the INWO, 'nothing can happen without them, anything can happen with them,' which is another distinctive feature of the INWO. We have also explored how the INWO is historically contingent and has evolved in particular ways as a result of certain events and trends specific to nuclear weapons. In the following chapter we shall set out specifically what these problems and research questions are and propose a plan for addressing them in the remainder of the thesis.

Chapter 6: Great Power Management and the International Nuclear Weapons Order

1. Introduction

It may be helpful for the reader to offer a brief reprise of the argument so far. We commenced by presenting an argument for selecting the English School (ES) of International Relations as the theoretical framework from which to examine the international nuclear order. The decision was driven by the literature review, which identified gaps in the literature on the ES regarding the order and application of the concept of primary institutions to the field of nuclear weapons. There were two notable sources which became foundational texts for the research: Hedley Bull, *The Anarchical Society: A Study of Order in World Politics* (1977/2002) and William Walker, *A Perpetual Menace: Nuclear Weapons and International Order* (2012). There were also two problems which came to light:

The first, from Bull (1977/2002), was that 'war' as a primary institution seemed more appropriately understood as 'war avoidance' in the INWO setting. When it came to 'power,' be it 'great power' or 'balance of power,' possessing a nuclear weapons capability seemed to complicate great power calculations. Was a great power simply a state that possessed a nuclear capability, or in an ES context, did it suggest that great power was more than a weapon and more an acceptance of specific responsibilities? We also highlighted that in the INWO, the role of the United States has been analogous to *primus inter pares*, though the *inter pares* may be contested.¹ This also raises a further question: Is the international nuclear order unique or simply a subset of the global order?

The second was that Walker (2012) viewed the international nuclear order as a whole comprising military use of nuclear weapons and peaceful use of nuclear energy, which was reasonable given that this is the scope of the NPT, which is the cornerstone of the nuclear order. However, because of examining the evolution of the nuclear order (chapter 2) it was clear that what made the nuclear order unique was the unprecedented destructive power of nuclear weapons. Therefore, to explore this in more detail, we made the choice to limit the scope of the analysis to the International Nuclear *Weapons Order*

¹ Two further texts were influential in forming this view: *The United States and the Great Powers* (2004) by Barry Buzan and *The Hegemon's Toolkit: US leadership and the politics of the nuclear non-proliferation regime* (2022) by Rebecca Davis Gibbons—both authors were interviewed as part of the research.

(INWO), and this was tested and developed in Chapter 3. One other distinguishing feature of the INWO was an inter-state rather than a global or world order.

The argument of Chapter 3, based on the evidence, was that what held the INWO together even during times of great power contestation and disagreements between NWS and NNWS was non-proliferation and nuclear security. It is the one thing that NWS and NNWS, inside and outside of the NPT, could all agree upon—they do not want any new nuclear weapons powers and certainly do not want nuclear materials falling into the hands of non-state actors. This ‘common goal’ around non-proliferation makes the INWO more robust than described in the current literature. The analysis will consist of four parts. In Part I, we will examine the terms and the theory. In Part II, we will apply that to the analysis of Great Powers in the INWO and draw some conclusions.

2. Who are the Great Powers?

We are supposed to know a great power when we see one, which often leaves room for argument (Cui and Buzan, 2016: 188). When Hedley Bull published *TAS* in 1977, he believed there were only two great powers—the United States and the Soviet Union. The U.S. National Security Strategy of 17 September 2002 and 16 March 2006 refers to Great Powers – the U.S., as well as the EU, China, India, and Russia – as “centres of global power” (Herd and Dunay, 2010: 3). Müller and Rauch have argued that “International power is in a state of flux concerning not only material power but also the concept of power itself” (2018: 4). But can great powers be measured objectively?

“The grading of powers is a matter of theory”, whereas the “managerial function of the great powers is a matter of practice” (Wight, 1977: 136).

2.1. Indicators of Great Power status

Here, it will be helpful for the research to follow if we explore alternative measures of great power in the system:

Nuclear weapons ²	Military Strength Ranking (2024) ³	Economic power (GDP, 2023) ⁴	Population (2023) ⁵	Global Diplomacy Index (2023) ⁶	Natural resources (2024) ⁷	Soft Power Index (2024) ⁸	Composite ranking (appearances out of 7 indicators)
⁹ *United States	United States	United States	India	China	Russia	United States	United States (7)
*Russia	Russia	China	China	United States	United States	Britain	China (7)
*China	China	Germany	United States	Turkey	Saudi Arabia	China	Britain (5)
*France	India	Japan	Indonesia	Japan	Canada	Japan	Russia (5)
*Britain	South Korea	India	Pakistan	France	Iran	Germany	France (4)
India	Britain	Britain	Nigeria	Russia	China	France	India (4)
Pakistan	Japan	France	Brazil	Britain	Brazil	Canada	Japan (4)
Israel	Turkey	Italy	Bangladesh	Germany	Australia	Switzerland	Italy (4)
North Korea	Pakistan	Brazil	Russia	Italy	Iraq	Italy	Germany (3)
	Italy	Canada	Mexico	Brazil	Venezuela	UAE	Brazil (3)

Table 6. Indicators of Great Power status

The table above is, of course, a crude approximation of ‘power’ in the system, but it's less crude than simply abstracting Great Power status with possession of nuclear weapons capability. There are at least two issues which arise: First that by using this metric to determine Great Power status we are inferring that there is no difference between the designation of Great Power in an INWO context and that of a Great Power in a World Society context.

This is problematic because we include Japan, Italy, Germany, and Brazil, which are not nuclear powers, while excluding Israel, Pakistan, and North Korea, which are. Moreover, in nuclear terms, two powers have dominated the INWO virtually since its inception—the U.S.A and Russia. Using the metric in the table, China has a much stronger role, which does not reflect the present reality of the INWO—though it may in the future. Moreover, we do not capture the full power of institutions such as the EU, which the U.S. sees as a ‘centre of global power’ (Herd and Dunay, 2010: 3).

² SIPRI—[World Nuclear Forces](#)--2023

³ Global Fire Power—2024—[Military Strength Ranking](#)

⁴ World Bank Group—2023—[GDP \(current \\$USD\)](#)

⁵ Statista—2024—[Countries with largest population](#)

⁶ [Global Diplomacy Index](#)—2023--Lowy Institute

⁷ [Countries with most natural resources](#)—2024—Investopedia

⁸ [Global Soft Power Index](#)—2024—Brand Finance

⁹ * indicated nuclear weapons states recognised under the NPT

3. What is a ‘Great’ power in the INWO context ?

Clausewitz spoke about power in the context of war as “an act of violence intended to compel our enemy to do our will” (1832: 85-86), but does this depiction of great power still hold in the nuclear age? Do the military definitions of the age of the cavalry charge still apply in the thermonuclear world of Mutually Assured Destruction (MAD)? Intuitively, the answer would be no, but why?

The incredible power to destroy an enemy may only be achieved through the mutually assured destruction of the Great Power itself. Therefore, great power is existentially powerful and vulnerable by the same measure. Bull questioned Clausewitz’s position because, with nuclear weapons, war could not deliver “absolute results” through a “single instantaneous blow” (1977/2002: 50). Holsti said, “The costs of nuclear war are so horrendous that the old Clausewitzian concept of war as a means of supporting state claims no longer makes sense.” (1996: 11).

3.1. Global Nuclear Weapons Spending Comparisons

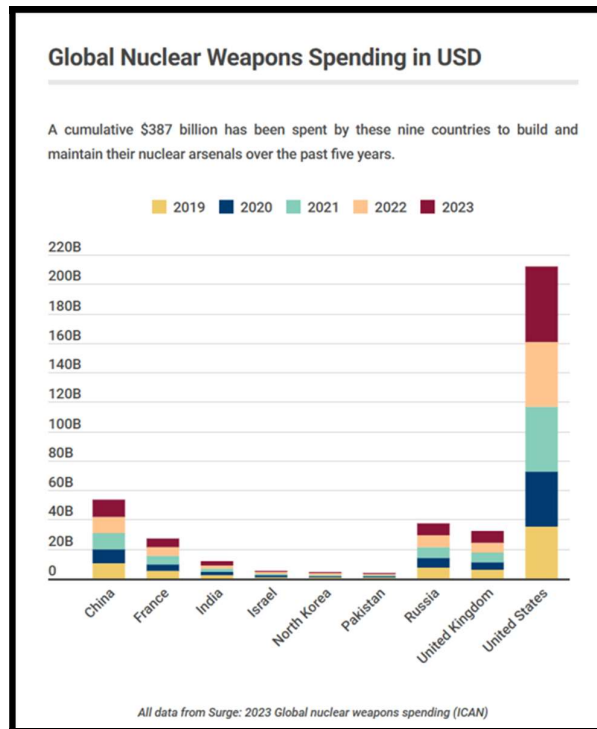


Illustration 14: Global Nuclear Weapons Spending (ICAN, 2023)

An illustration of this trend may be seen in the growth of global trade, which increased by a staggering 4500% between 1950 and 2022. The argument is that as economic

wealth increases, so does the spending on arms. Kennedy adds, “It was as clear to a Renaissance prince as it is to the Pentagon today that military powers rest upon adequate supplies of wealth” (439: 1988). In this analysis, Kennedy sees that ‘decline’ for a Great Power is more often ‘relative’ than ‘absolute’, but that decline is hastened because “Great Powers in relative decline instinctively respond by spending more on “security,” and thereby divert potential resources from “investment” and compound their long-term dilemma” (1988: xxiii). Yet, this does not tell us the whole story of power in the INWO. We might also have looked more closely at the raw materials for nuclear weapons; who has them, and where do they come from? It is an interesting picture:

Uranium mining annual production (2022)	Military-grade Enriched Uranium (2022) ¹⁰	Highly Enriched Uranium (HEU)	Military-grade Plutonium (2022) ¹¹
Kazakhstan (21,223 mt)	Russia (670 mt)		Russia (88 mt)
Canada (7351 mt)	U.S. (483.4 mt)		U.S. (38.4 mt)
Namibia (5613 mt)	France (24.6 mt)		France (4.9 mt)
Australia (4553 mt)	UK (21.9 mt)		UK (3.2 mt)
Uzbekistan (3300 mt)	China (14 mt)		China (2.9 mt)
Russia (2508 mt)	India (4.5 mt)		Israel (0.83 mt)

Table 5: Uranium/Plutonium production/ *The IAEA believes that it requires 25kg of Uranium-235 or 8kg of Plutonium to manufacture at nuclear warhead¹²

3.2. *‘More the greatness than the power’?*

Professor Sir Lawrence Freedman opined that when it came to nuclear weapons, great powers appeared more concerned with “greatness than the power” (Interview: 12 October 2023). Hedley Bull noted:

The policies of the five nuclear weapon states continue to provide confirmation of the idea—from which the will to proliferate derives—that nuclear weapons are a vital strategic instrument, a vital source of great power status or prestige, or both (Bull, 1975: 176)

It is difficult to think of other capabilities which may impact a state’s perception of itself and others as much as nuclear weapons, even other WMD such as chemical and biological weapons which great powers have been content to give up, but they keep nuclear. Yet, others point out that this ‘use’ is illusory: “Nothing lends itself more to the illusion than our perceptions of nuclear weapons. This is so because of the quality of fear they inspire, their special mystery, their relationship to the infinite, and our sense of profound helplessness before them” (Lifton and Falk, 1982: 13). This is contested. Harrington de

¹⁰ [International Panel on Fissile Materials](#)—Annual Report, 2022—page 20

¹¹ [International Panel on Fissile Materials](#)—Annual Report, 2022—page 16

¹² [Guide to the World’s Fissile Material Inventory—2019](#)—Research Centre for Nuclear Weapons, Nagasaki University

Santana claims, “Nuclear weapons function as the currency of power in the international system” (2009: 325).

The ‘seat at the top table’ has been a powerful motivation and manifestation of great power status. There is an diplomatic aphorism that ‘if you are not at the table, then you are on the menu’. In many respects, the great powers are at the table, especially the UNSC and those who don’t often find themselves on the menu. The agenda-setting power of great powers is significant. Their ability to block moves that threaten their interests at source and support those which enhance their interests is a fungible power in the system. The power to say ‘no’ is the greatest power in the international system of states. Though it could also be argued that ‘a seat at the top table’ was not offered to Israel, India, Pakistan and North Korea on becoming nuclear powers, and in some respects, it has been detrimental to their international standing. That said, even if the UK and France were partly motivated by great power ‘prestige’ calculations, others such as the U.S., Russia, China, Israel, Pakistan and North Korea were motivated primarily by security concerns (Kutchesfahani, 2019, 106). In short, not all nuclear powers may be great powers, but all Great Powers are nuclear powers.

3.3. *‘Halo effect’*

This is not to conflate the prestige of dining at High Table with diplomatic vanity; it can have intrinsic value. Wight said, “Prestige is the halo around power” and “because prestige is not only something that other people recognise, but also something you assert, wisely or unwisely, necessarily or unnecessarily” (1979: 97-98). So, a nuclear weapon adds a ‘halo effect’ to conventional military capability. By proxy this must also apply to states covered by extended nuclear deterrence.

There is a problem that if states exist to maximise power, then why wouldn’t nuclear weapons be part of their capabilities if they had them? The Comprehensive Test Ban Treaty lists in Annex 2—44 states with nuclear technology capabilities, but only nine of them possess nuclear weapons. It could be argued that many of these states are covered by extended deterrence, chiefly of the United States and NATO, but that was insufficient for the UK and France. One might ask why is it therefore sufficient for other G7 states such as Canada, Italy, Germany and Japan? Unless we see that for factors of history especially Japan and Germany have decided not to assert their power commensurate with their size and economic power. If this is the case then it points to something significant, namely a social rather than purely material order in which states can be deferential to other states even although in the case of Germany and Japan their economic importance

exceeds that of NWS such as UK and France. Here, the INWO is not necessarily behaving in a unique way, as similar calculations may exist in Germany and Japan, not pressing the case for their permanent membership of the UNSC. Again this is evidence that the international order is something more than structural realists can account for, but it confirms a claim made by the ES that order is social.

3.4. *Soft Power*

The INWO is comprised of NWS and NNWS. The NNWS outnumber the NWS almost 20:1. I found in attending the Second Meeting of the State Parties (2023)¹³ to the TPNW and the Second Preparatory Committee of the 2026 NPT Review Conference (2024) that Japan was recognised as having a special moral status in the INWO by virtue of its history of being the only state ever to have been attacked with nuclear weapons. The Japanese delegation was always invited to speak first in the NPT plenary sessions.¹⁴ The Hibakusha (nuclear weapons survivors) were always given a platform to address the conference. They are joined by other, smaller NNWS who have a strong moral standing in the INWO—Ireland, who first posed the ‘Irish Question’ in the UNGA which became the NPT; Austria, as host to many of the institutions of the INWO; Mexico who were instrumental in the Treaty of the Tlatelolco which established the first Nuclear Weapons Free Zone covering Latin America and the Caribbean (1967) and Kazakhstan, Marshall Islands and Kiribati which bore the brunt of Soviet, U.S. and UK nuclear tests.

John Baylis has written authoritatively about the ‘balance of nuclear power and morality’ (1997). Martin Wight said that rather than a chessboard, a balance of powers was akin to weights and scales ‘matching their moral weight to material strength’ (2019: 171). For the ES there is a foundational claim that there is a normative dimension to international society. My findings would suggest that this normative dimension extends into the INWO and is why NWS are mindful of the need to preserve their legitimacy and NNWS are intent on removing it.

This then reinforces reasons why NWS are nervous about attempts to stigmatise and delegitimise nuclear weapons through the introduction of the TPNW. Moral power/ soft power (Nye, 1990) is real power in the INWO because it is a normative¹⁵ social order where legitimacy matters. Japan grapples with very real regional nuclear threats,

¹³ Although Japan did not officially observe the Meeting of State Parties to the TPNW (2023) the Mayors of Hiroshima and Nagasaki were present as the leader of Mayors for Peace.

¹⁴ Kodama, K., 2009. The Hiroshima-Nagasaki Process: drawing a roadmap to the total abolition of nuclear weapons [Paper in special issue: Peacebuilding from Below in Asia-Pacific. Synott, John (ed.)]. *Social Alternatives*, 29(1), p. 38

¹⁵ See: Table 1 (p.123) for a list of norms of the INWO

especially from North Korea and China. Yet the U.S. 'nuclear umbrella' appears to be 'irreparably frayed' (Gewen, 2023)¹⁶ and it faces a 'nuclear dilemma' as to whether to develop its own capability (Akiyama, 2024)¹⁷. Yet it is also cognisant of its unique moral standing in the INWO, as illustrated by the awarding of the 2024 Nobel Peace Prize to the Hibakusha. To acquire its own nuclear capability, it needs first to withdraw from the NPT (only the second country to do so after North Korea) and then abandon the extended deterrence of the U.S. when arguably it is the presence of 23 U.S. nuclear bases and 35,000 U.S. military personnel in Japan¹⁸ that is its greatest guarantee against nuclear aggression from North Korea, Russia or China. It is, therefore, faced with a choice of preferencing increased domestic security or diminished international legitimacy. Japan's actions over the next decade will tell us more about the health of the INWO than all the words uttered at the NPT or TPNW.

4. Great Power Management in the INWO

Where does this leave us when considering the concept of power in the context of nuclear weapons? I suggest four key considerations: First, power is contained in the possession of the capability of nuclear weapons, not in their use; second, it is more effective as a capability to deter the actions of adversaries than it is to compel. Third, the possession of a nuclear weapon secures an elevated status in the international political order because other states believe that it does. Ward Wilson, author of *Five Myths about Nuclear Weapons* (2013), which had a profound impact on this researcher, told me:

So, why haven't nuclear weapons been used for the better part of a century in war? If they are the ultimate weapon. Why can't we use them? American soldiers have died in wars. American interests have been threatened. Why haven't nuclear weapons come out of the storage sheds? (Interview: 8 December 2023)

As the military strategist R.J. Art put it:

Today, nuclear weapons have bought prestige for the nuclear great powers but have not catapulted them into the ranks of the superpowers. Nor is it evident that such weapons have made England, France, India, and even China more secure than they would be without them (Art, 1980: 17)

I conclude that nuclear weapons may give a state a great power but not make it a Great Power in GPM terms. The difference is that the great power has a nuclear weapon, but the Great Power adds to these general interests rather than national interests; general

¹⁶ Gewen, B. 2023. [Japan is destined to have nuclear weapons](#) published in The National Interest, 8 December 2023

¹⁷ Akiyama, N. 2024. [Mitigating Japan's Nuclear Dilemma](#). Policy memo published by the Stimson Center 7 May 2024

¹⁸ [United States Forces in Japan](#) web-site accessed 28 February 2025

powers (economic, resources, conventional, soft, etc.) rather than any one capability and finally, a Great Power accepts a broader managerial responsibility for maintaining order in international society. I argue that there are two pre-eminent Great Powers in the nuclear order—the United States and Russia, two emerging Great Powers—China and India, and two other established Great Powers—France and the United Kingdom a 2+2+2 arrangement.

Zala has described GPM as:

the special rights of the great powers to enjoy spheres of influence, privileged positions in international organisations and the ability to set the agenda for multilateral diplomacy being matched by a concomitant responsibility for crisis management, restraint in their relations with one another, and leadership in addressing transnational threats (Zala, 2020: 62)

Alexander Astrov has argued, "It is not immediately clear what the term [Great Power Management] can possibly stand for in practice.....Bull himself provides little help here, and until recently 'great power management' received little attention from subsequent generations of the English school" (2011: 111). This criticism is not entirely fair: The term 'management' is used thirty-seven times in TAS (1977). It is used to mean "crisis avoidance" (68); the maintenance of a "balance of power" between great powers (110), the management of the "international system" (112); diplomacy as the "management of international relations" (156), as "international technical management" (170), the movement from "confrontation" between great powers to "détente" (206).

In this sense, the politics of great power management may be described as the politics of consent. Consent is underpinned by legitimacy. As Bull put it, "Great powers can fulfil their management functions only if those functions are accepted clearly enough by a large enough proportion of the society of states to command legitimacy" (Bull, 1977: 228). Yet, as we see, legitimacy is sensitive to shifts in trust within the system. A qualification to the belief that nuclear weapons equate to great power and Great Power to Great Power Management in the INWO was raised by Barry Buzan, who told me:

[T]here's been a certain kind of bleaching away of responsibility from great powers because they're no longer the only ones who have the capacity to act, and that gives them a more decentralised view of management in international Society. I am somewhat downplaying the role of the of the Great Powers seems to me. Some of the more extreme proponents of that view either think or wish that the great powers are no longer influential on the scene. But that seems to me wrong. As often they are and there's certain things you can't do unless the great powers come on board.¹⁹ (Interview: 10 October 2023).

¹⁹ Bukovansky, M., Clark, I., Eckersley, R., Price, R., Reus-Smit, C. and Wheeler, N.J., 2012. *Special responsibilities: Global problems and American power*. Cambridge University Press.

This assessment of great power would support the proposition made in chapter four that in the INWO, without U.S. support, nothing is possible, but with U.S. support, anything is possible.

A further point worth introducing here is that in the academic study of business, there is a clear distinction between 'management' and 'leadership':

Leadership and management entail a unique set of activities or functions. While leaders and managers share some similarities because they both influence others by using specific powers to achieve certain goals, there are also some prominent differences (Northouse, 2007). While, managers maintain a smoothly functioning workplace, leaders test the current position and encourage new functions, so they are looking for long-term goals (Yukl, 1989). In today's vigorous workplace, organizations need both effective management, and effective leadership for optimal success (Kotterman, 2006). (Algahtani, 2014: 72).

Whilst the word 'management' may be infrequently used in IR, it is at the heart of the successful operation of organisations in the private and public sectors. The 'managing' refers to the assets of the firm/organisation, whether they be human, financial, mechanical, or technological. It is about the efficient use of resources (Northouse, 2007). It does this through planning, organizing, budgeting, and coordinating (Kotter, 2001). It tends to be task-orientated (Katz, 1955).

One area where there may be greater overlap between the primary institution of GPM and the INWO is that management is not ownership in the business setting. Owners own the assets of the firm, and managers manage the assets on their behalf in the context of the chosen strategy and are accountable to them for results. To be a manager, therefore, means accepting responsibility and accountability in exchange for authority to deliver on strategic goals on behalf of the firm's shareholders or, in our case, international society as a whole.

5. Great power responsibility

In his classic article *The Great Irresponsibles?*, Bull set out that "The concept of a great power has always had normative as well as positive connotations" (Bull, 1980: 437). "To speak of great powers is already to presuppose the existence of international society in which these states are 'great responsables'" (Bull, 1971: 143). Loke points out that "great power responsibility is a normative expectation of state conduct. Although great powers are recognised to have responsibilities, they may not necessarily fulfil them" (2016: 852). As R.J. Vincent put it, "Great powers were burdened by responsibility as much as

benefited by power, and theirs was a role that had to be played” (1990: 62–63). Hurrell and Alderson point out that it must be more than this:

Equally the role of Great Powers is to be studied not simply in terms of the degree to which they could impose order on weaker states or within spheres of influence on the back of crude coercion, but rather in terms of the extent to which their role and their managerial functions may come to be perceived as legitimate by other states (Hurrell and Alderson, 2000: 24).

This is important because, as Professor Nick Wheeler told me:

Without a theory of GPM and responsibility then it is not possible to get international society airborne because if you can't have an international society then you can't have an international nuclear order (Interview: 15 August 2023)

Professor Mary Kaldor told me:

You seem to have a rather gentlemanly view of international order where the great powers behave in a responsible way, but you know, I think nuclear weapons have much more to do with terrifying their populations than they do about terrifying each other (Interview 12 October 2023).

Professor Kaldor's criticism could be applied to others: Bull broadened the realist test for great power status to include “being recognised by others”—legitimacy - and having certain “special rights and responsibilities” or “special rights and duties” and “managerial functions” (Leveringhaus and Hurrell, 2017: 227). The point about recognition is crucial:

You can claim Great Power status but membership in the club of Great Powers is a social category that depends on recognition by others—by your peers in the club but also by smaller and weaker states willing to accept the legitimacy and the authority of those at the top of the international hierarchy (Leveringhaus and Hurrell, 2017: 228)

Hedley Bull points out:

The great powers do, however, have a permanent problem of securing and preserving consent of other states to the special role they play in the system. Great powers can fulfil their managerial functions in international society only if these functions are accepted clearly enough by a large proportion of the society of states to command legitimacy (2002: 221)

Acharya and Buzan argue that ‘great powers are in part defined by their wider responsibilities to what Watson (1992: 14) labelled *raison de système*, defined as ‘the belief that it pays to make the system work’ (2019: 270). Amongst these special responsibilities by “managing their relations with one another in the interests of the international order” (2002: 200).

5.1. ‘Absolute power corrupts absolutely’

The addition of 'management' to great power in Bull's work was not accidental but intentional. It was proposed that great powers "had a moral duty to maintain order in international society" (Makinda, 2002: 367). It was not passive but active—great power management presupposes collective or concerted action (Simpson, 2004: 73). There is a problem here, a very human one. A normative one. It was identified by Lord Acton in his correspondence with Bishop Crieghton in 1887 on the question of the presumed infallibility of popes and kings:

Power tends to corrupt and absolute power corrupts absolutely. Great men are almost always bad men, even when they exercise influence and not authority: still more when you superadd the tendency or the certainty of corruption by authority.

Could this be applied to the states? The current Ambassador to the UN, and former president of Kiribati, Teburoro Tito, thinks so. He told me, "Nuclear weapons are caught up in the new Cold War—they are all part of it—the struggle for power" (Interview 29 November 2023).

Ambassador Tito has been a passionate advocate against nuclear weapons, and with just cause, he pointed out that Kiribati, which includes Christmas Island, was one of the most bombed places on earth, with 33 nuclear tests by Britain and the U.S. carried out there.

Professor Nick Wheeler raised a starker conclusion:

The key concept that you seem to be getting at is the great power management/responsibility precedes international nuclear order and order is only possible with it. So, can the international nuclear order survive a collapse of great power responsibility? (Interview: 15 August 2023)

6. Trust in the INWO context?

In exercising these more strategic and directional roles, they must be mindful of maintaining their legitimacy, acceptance, or 'trust' (Ruzicka and Wheeler, 2010) within the INWO among NNWS states. 'Trust' is a 'way in which two or more parties relate to each other' (Ruzicka and Wheeler, 2010: 84). It is a natural, even essential human condition for trade, government and even personal social relations. In his book *Trust*, Francis Fukuyama defined trust as, '[T]he expectation that arises in a community of regular, honest and cooperative behaviour, based on commonly shared norms, on the part of other members of that community' (1996: 26).

In his 1992 State of the Union Address delivered at the end of the Cold War President George H.W. Bush hoped for a new future of Great Power (singular) Management:

Much good can come from the prudent use of power. And much good can come of this: A world once divided into two armed camps now recognizes one sole and preeminent power, the United States of America. And they regard this with no dread. For the world trusts us with power, and the world is right. They trust us to be fair and restrained. They trust us to be on the side of decency. They trust us to do what's right.²⁰

'Trust' was therefore seen as the essential companion of power, and they were connected through responsibility and restraint. It is not surprising that trust should also be present in international society. It was one of Bull's three universal values. When it comes to the NPT, there was an assumption of trust in what the NWS and NNWS were signing up for in the NPT text. Without trust it would be assumed that states would not have signed:

The NNWS assumed a potential great vulnerability because by forsaking the possibility of getting nuclear weapons, they exposed themselves to the actions of the NWS, as a result of which they could face negative consequences, such as nuclear blackmail. The basic bargain of the NPT thus represents a trusting relationship. (Ruzicka and Wheeler, 2010: 75)

This trusting relationship, as with all trusting relationships, is a one based on mutuality—trust is a two-way street. So, in the case of the NPT, it was never envisioned that NWS would maintain their nuclear weapons in perpetuity but merely to enable an orderly disarmament whilst maintaining a balance of power. This is evidenced through re-reading not just the disputed articles of the NPT, especially Article VI on disarmament, but placing it all in the context of the preamble to the treaty, which notes:

Desiring to further the easing of international tension and the strengthening of *trust* between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control. (*emphasis added*)

Though clearly it was not anticipated at that point the 'aggression with nuclear weapons against a non-nuclear weapons state' may in fact come from a permanent member of the UNSC itself and a Depository State of the NPT.

6.1. "Trust but verify"

There is of course a solution for when trust between parties is at a low ebb and that is verification, especially independent verification. 'Trust but verify' was frequently used by Ronald Reagan at arms control negotiations with Mikhail Gorbachev because it is a

²⁰ [Address Before a Joint Session of Congress on the State of the Union 28 January 1992](#) by George H Bush, 41st President of the United States

famous Russian proverb “*doveryai, no proveryai,*” but it is also at the heart of arms control. Neuneck has defined nuclear disarmament as:

Nuclear Disarmament is the concrete and *verifiable* irreversible reduction, dismantlement, destruction or elimination of nuclear weapons from a national military nuclear arsenal (Neuneck, 2022: 187 *emphases added*)

According to Pieragostini, verification measures in a nuclear context play two important roles: the timely detection of violations of a treaty, and in doing so, they also provide a deterrent against further cheating (Pieragostini, 1986: 423). Yet here again we see variations in applicability and exceptions for great powers. During my research, I spoke to Angela Woodward, who is Programme Director for Compliance Mechanisms and Measures at Verification Research, Training and Implementation Centre (VERTIC). VERTIC is an independent, non-profit charitable organisation which supports efforts to verify international agreements.

With the NPT, the only verification that takes place is peaceful uses and nuclear safeguards. So there is a very strong verification system for that if states have agreed. The Comprehensive Safeguards Agreement and Additional Protocol is a very stable, secure system. Everybody knows how that works, but whenever you have a treaty where it carves out special privileges for certain states, it becomes more difficult to verify. (Interview: 14 August 2023).

The absence of an independent verification mechanism for Article VI of the NPT means disarmament is seen as another ‘asymmetry’. Whilst there is a verification mechanism through the IAEA, NSG or Zangger Committee to uphold aspects of Articles I, II, III and IV of the NPT, there is no comparable verification mechanism for Article VI. This is important because, as Woodward states, wherever you have a treaty which carves out special privileges for certain states, it becomes more difficult to verify. Doyle claims that ‘the NPT is in danger of collapsing under the wight of its own contradictions’ (Doyle, 2009: 8).

6.2. *Chemical Weapons Convention as a model for INWO?*

When the Chemical Weapons Convention came into force in 1997, it envisaged no exceptions for states party to the treaty from the obligation to ban the production, transfer or stockpiling of chemical weapons, which the OPCW independently verifies. As a result, 100% of the world’s declared chemical weapons stockpiles (72,304 mt) have been destroyed (OPCW, 31 August 2024).²¹ Dr John Walker, who was Head of the UK Foreign and Commonwealth Office’s Arms Control and Disarmament Research Unit (2014-2020) told me:

²¹ OPCW ‘[By the numbers](#)’ dated 31 August, 2024 and accessed 8 October, 2024

I think that the CWC has a much more complex verification regime, and of course, the global treaty is 193 State Parties to it. It has had a lot of issues in recent years with the arguments over the Syrian CW programme and the evolution of the Organisation for the Prohibition of Chemical Weapons verification approaches such as the creation of the Fact-Finding Missions (FFMs) and the Declaration Assessment Team (DAT), which have been very successful (Interview: 4 September, 2023)

By contrast, the Biological and Toxins Weapons Convention (1975) does not have an independent verification mechanism and instead relies on state parties to submit what are termed ‘confidence-building measures’, which may be broadly termed as ‘self-assessments’, and in 2022, only fifty state parties out of 187 state parties did so.²² There is a mechanism for state parties to refer concerns over other state parties’ compliance, but this is done by the UNSC, the ‘Great Powers’ hold a veto over any biological weapons investigations, and as such, the power has never been used²³ (Kimball, 2024).²⁴ When I observed the Second Meeting of the State Parties to the TPNW in November 2023 reference was frequently made to the fact that the TPNW contained strong provision for an independent verification mechanism in the treaty which states:

Article 4.6: The state parties shall designate a competent international authority or authorities to negotiate and verify the irreversible elimination of NWS programmes, including the elimination or irreversible conversion of all nuclear weapons-related facilities in accordance with para. 1, 2, and 3 of this article.²⁵

The authority would then be tasked with reporting the elimination of the nuclear programme or the “irreversible conversion of all nuclear-weapon related facilities to the state parties”. (Art. 4.1). Of course, that may be the intent, but there is no guarantee that in the unlikely event that the great powers joined the TPNW that would be the reality—see BWC. Angela Woodward (VERTIC) also pointed out that the verification mechanism for the TPNW had yet to be agreed upon (Interview: 14 August 2023).

6.3. UK leadership on verification

Several practitioners who I spoke to were extremely positive about the work the UK was doing in this field both through the UK-Norway Initiative on nuclear disarmament verification between 2006 and 2012,²⁶ the U.S.-UK Programme on Non-proliferation and

²² Implementation Support Unit Report ‘[History and operation of confidence-building measures](#)’ prepared for the Preparatory Committee for the Ninth BWC Review Committee—20 December, 2021

²³ In April 2024 the [US State Department issued a report](#) raising concerns of compliance of Russia, Iran, China and North Korea in relation to the BWC

²⁴ ‘[The Biological Weapons Convention at a Glance](#)’ by Daryl Kimball published by the Arms Control Association August 2024 and accessed 8 October, 2024

²⁵ UNODA ‘[Treaty on the prohibition of nuclear weapons](#)’ accessed 8 October 2024

²⁶ [UK-Norway Initiative Report](#) to the NPT PrepCom, Vienna, May 2012

Arms Control Technology (2000-2015)²⁷ and then the formation of The Quad Nuclear Verification Partnership²⁸ between two nuclear weapons states (UK and U.S.) and two non-nuclear weapons states (Norway and Sweden) since 2015. In 2017 the UK hosted the first exercise of its kind named 'Letterpress'. It explored the 'greatest technical obstruction to nuclear disarmament—the absence of an agreed process for checking the dismantlement of a nuclear weapon' (UK Ministry of Defence, 2017).²⁹ This is part of wider work which the UK has been leading on in respect of irreversibility in nuclear disarmament (IND).³⁰

Another U.S. verification initiative frequently cited by interviewees was the International Partnership for Nuclear Disarmament Verification (IPNDV). Professor Nick Ritchie told me:

Perhaps what was emerging and has solidified separately is perhaps a secondary institution of nuclear disarmament verification, with the [IPNDV](#) and that whole kind of ecosystem that's evolved over the last 10 to 15 years on nuclear disarmament verification. It's gone off in its own direction. (Interview: 26 September 2023)

6.4. International Partnership for Nuclear Disarmament Verification (IPNDV)

Nick Ritchie's point is important because perhaps what we are witnessing is a process whereby multiple verification and control initiatives: Quad, IPNVD, NSG, OPCW, CTBTO (IMS), Australia Group, The Wassenaar Arrangement, PSI, MTCR are coalescing to form a new super verification mechanism for WMD. There would also be a logic for such a move as it would share expertise, information, technology and increase authority to act. However, for that to happen, it would require a minimum of great power consent and management. This is problematic, because the fraying of the INWO at a disarmament level is also reflected in the verification infrastructure.

The IPNVD, which is a public-private partnership established in 2014, is led by the U.S. State Department and the Nuclear Threat Initiative.³¹ In the IPNDV Report in 2017, both Russia and China are listed as key partners (IPNVD, 2017: 33).³² Yet, Russia and China are not even mentioned in the 54-page review of IPNVD's ten years of work from 2014-

²⁷ [Joint US-UK Report on Technical Cooperation for Arms Control](#) jointly published by MoD and AWE (UK), NISA, NPAC (USA) September, 2021

²⁸ Home page of the [Quad Nuclear Verification Partnership](#) accessed 8 October 2024

²⁹ ['UK hosts international nuclear disarmament verification initiative'](#) published by the Ministry of Defence—25 October, 2017 and accessed 8 October, 2024

³⁰ Wilton Park Report ['Irreversibility in Nuclear Disarmament Conference'](#) (16-18 March 2022)

³¹ A foreign policy think tank founded in 2001 by Senator Sam Nunn and philanthropist Ted Turner

³² ['Phase 1 Summary Report: Creating the verification building blocks for future Nuclear Disarmament'](#) published by IPNVD November, 2017

2024, other than to acknowledge, with a twist of irony, that ‘trust and verify’ was a Russian proverb (2024:4).³³

When verification comes under a broad heading of ‘disarmament’, it is failing, but verification and control in relation to non-proliferation remain strong and functioning. This is important as the theoretical approach we have adopted here is to assume that states establish order in an international society of states through certain primary institutions for purposive reasons, such as the ‘promotion of certain goals or values’ (Bull, 1995: 3 and Makinda, 2002: 361) and the collective goal of the INWO is non-proliferation.

7. Great Power Restraint in the INWO

Whilst there is much talk about great power responsibility, there is less about great power restraint. Restraint may be considered in the context of power as being a case of ‘just because you could, does not mean you should.’ Nina Tannenwald began her paper on ‘Moving towards a Global Regime of Nuclear Restraint and Responsibility’ (2020) with the sentence “Today, we are on the verge of a world without nuclear restraint.” Tannenwald went on to state, perhaps with a touch of understatement:

Needless to say, in the current environment of heightened great-power competition, the nuclear-armed governments are probably incapable of moving toward a regime of restraint and responsibility without significant prodding (2000: 206).

Dr. Nikolai Sokov, a former Russian diplomat, and now a Senior Fellow at VCNPD³⁴ told me:

Power has the ability to undermine leadership whether it is a great power or not. The power to mess things up is also a great power. So it is really all about shared values, ideas and plans. How do you see the ideal world? That is something there is no agreement about right now (Interview: 21 November 2023)

It is the argument of some, especially those supporting the TPNW, that great powers use their influence with specific states and actors to preserve order in international society even if this is “widely regarded as unjust” (1977: 212) as Bull puts it:

Such a state of affairs, in which a great power unilaterally imposes conformity to rules to which it is not itself subject, is bound to be widely regarded as unjust, but it is nevertheless a form of order (1977: 212)

The problem with this approach is that if it is ‘unjust,’ it would likely erode the legitimacy and trust of the great power in the eyes of international society. Such actions, therefore,

³³ [‘Verification of Nuclear Disarmament: Insights from a Decade of the IPNVD’](#) published by the IPNVD, June 2024.

³⁴ [Vienna Centre for Non-proliferation and Disarmament](#) accessed 10 October 2024.

are never cost-free in the system and society. For example, if Russia were to be successful in its war against Ukraine, it would emerge from its 'triumph' a diminished state in international society, much less able to make its 'will' prevail than had it exercised restraint in respect of its neighbour, working through, rather than against, institutions to resolve problems. It may find that when it seeks to return to the table with the U.S., China has taken its seat. The point is that reputation and restraint matter. It is a reserve currency of great power diplomacy. This is because there is nothing preordained about great power status, management, or responsibility; they are all socially constructed terms that have acquired a certain meaning in international society—they are social rather than material facts.

In this explanation of the evolution of the nuclear order, Bull proposes a driver of common interests of the U.S. and Soviet Union—in avoiding nuclear war—rather than suggesting that somehow these responsibilities were defining their interests not narrowly as state self-interest but more broadly to 'encompass the preservation of the international system'. As Loke concludes:

the English School envisages the great powers as embodying an enlightened self-interest that takes into account the broader interests of the other members of international society and works towards maintaining international order. The social construction of great power thus encompasses the recognition of status, rights and responsibilities (Loke, 2016: 851)

The 'Great Irresponsibles' article by Bull identifies only two of the 'great powers', the United States and the Soviet Union—indeed, the sub-heading of the article in *The United States, the Soviet Union and the World Order*. This distinction is significant as it suggests that neither the possession of nuclear weapons nor permanent membership in the Security Council *per se* defines a great power in the context of the INWO:

Shifts in the distribution of power, furthermore, from time to time undermine the claims of the states to great power status and breed ambitions for it in others: at present, for example, it is not clear that Britain and France 'deserve' the status conferred upon them by their permanent membership of the Security Council, while such ascendant states as West Germany, Japan, India, and Brazil either 'deserve' a greater status than they have (1980: 438)

Finally, the article makes the argument of there being a kind of 'grand bargain' by which great powers are given special privileges conditional on performing certain duties:

Great powers cannot expect to be conceded special rights if they do not perform special duties. What we have been witnessing since the mid-1970s is the abandonment by the superpowers of their postures as responsible managers. The work of erecting a structure of co-operation has been abandoned, and what had been put in place is beginning to decay. ... The United States and the Soviet Union

today have little claim to be regarded as nuclear trustees for mankind (1980: 446-447)

The problem is, what can the international community do about irresponsible great powers? They cannot remove their permanent representative status as great powers at the UN, nor remove their privileges as being 'recognised' nuclear weapons states under the NPT. Holsti noted:

The great powers, led by the Soviet Union, systematically violated the norm of great power responsibility for maintaining international peace and security. Rather than 'managing,' the international system, they were the main sources of its deep insecurity" (2004, 26).

7.1. Upholding not undermining institutions

One interviewee told me:

What we see now in terms of the powerful states' actions is that they are visibly acting to undermine the institutions that are part of this [nuclear weapons] order. Could another example of the criterion for a responsible great power be the degree to which it understands that paradox and acts accordingly? (Interview: 21 November 2023)

Examples might be the establishment of UNSCOM by the UNSC, which challenged the role of the IAEA, especially over inspections of WMD in Iraq.³⁵ Or China challenging the IAEA's use of safeguarding budget funds over AUKUS nuclear-powered submarines for Australia.³⁶ The point is that great powers' particular responsibility is to uphold the work and independence of institutions in exchange for their privileged status in the system (the Nuclear P-5 are de facto permanent members of the IAEA Board of Governors). This lends itself to a matrix that could be used to measure the strength of GPM across different domains.

³⁵ Hymans, J.E.C., (2014) [How the IAEA went from lapdog to watchdog in Iraq](#)—published in the Bulletin of the Atomic Scientists—25 April, 2014

³⁶ Murphy, F., (2022) [China, AUKUS countries clash at IAEA over nuclear submarine plan](#)—published by Reuters—16 September, 2022

7.2.. Great Power Management Scorecard?

	U.S.A	Russia	China	France	UK	India
Managing GP relations through regular meetings						
Crisis aversion						
Eschew war and limit involvement in wars						
Exercise control and central direction where they can						
Establish spheres of influence						
Co-operate to promote common policies						
Upholding the integrity and independence of institutions						
Exercise restraint and responsibility						

Table 6. Great Power Management Scorecard?

7.3. Vienna the 'nerve centre' of the INWO

“Do not bring the politics of New York and Geneva to interfere with the vital work in Vienna.”

It is all well and good having a matrix, but who is going to complete it and will the great powers take any notice of it when it is done? This leads me to the final part of this section which was a very specific concern raised with me by several interviewees in Vienna:

During the research, I had the opportunity to speak to several officials with extensive knowledge of the INWO who expressed concern that the low politics of great power politics in the UNSC were beginning to impact on the vital technical work of institutions in Vienna. Unfortunately, it was not possible to secure these comments on the record or attribute them, but I feel I must mention them in the research because they reflected a deep concern about the future of the INWO at a practical or working level. To place this in context: Vienna has a special place in the INWO, not only because it is home to its most respected institution—the IAEA. The IAEA is important in the INWO infrastructure because three nuclear weapons states (India, Pakistan and Israel) are party to the IAEA but not the NPT.

Vienna is also home to the CTBT Preparatory Organisation, which has built an extensive International Monitoring System for nuclear tests, despite the treaty yet to come into

force. The Nuclear Suppliers Group does vital work in controlling nuclear materials, and they are coordinated in Vienna by the Permanent Mission of Japan. Similarly, the Zangger Committee is also based in Vienna and co-ordinated by the Permanent Mission of Denmark. The JCPoA was signed in Vienna, and the IAEA has the lead role in monitoring compliance. In short, if there was a global 'nerve centre' for the non-proliferation and verification work of the INWO, then it would be Vienna.

The specific concerns were that Vienna had been highly effective as a kind of 'sacred ground' of the INWO, but in recent years, the Cold War 2.0 great power politics have caused the UNSC, Conference on Disarmament and the NPT Review Conferences to become dysfunctional and have been brought to Vienna. Specific instances mentioned were AUKUS, which had been raised at the IAEA by China; the diplomatic isolation of Russia because of Ukraine; the withdrawal of the U.S. from the JCPoA; and the prospects for a possible U.S. nuclear deal with Saudi Arabia.

Great powers must respect Vienna's vital work and not 'poison the well', as this would significantly undermine the cooperation routinely between technical experts, laboratories, and officials, which is vital to the INWO's non-proliferation and safeguarding work. This would be a fruitful area for further research, especially if participants were willing to discuss their fears publicly.

7.4. Nuclear sharing—a case of 'over-sharing'?

In his book *Great Powers in the Changing International Order*, Nick Bisley claims, "That the United States is the world's preeminent power is the conventional wisdom in IR scholarship as well as in the broader public discourse...it is top of the international league table" (2012:113). It ranks alongside Imperial Rome, Ming Dynasty China and Victorian Britain. As we have discussed in previous chapters, this is especially the case in the INWO, in which, without the U.S., nothing is possible, and with the U.S., anything is possible.

In the aftermath of World War II, U.S. material power was unmatched; its closest peers had been devastated by war. With this immense power, the United States sought to create an international order across several areas of global politics. The term hegemon to refer to the United States in the nuclear age is purposely chosen and is defined as a state that uses its unparalleled material power to create order within the international system (*The Hegemon's Toolkit*, Davis Gibbons, 2022: 3).

The most common way U.S. power is projected in the INWO is through nuclear sharing arrangements and extended nuclear guarantees. It is unarguable that these arrangements delivered through NATO and bilateral treaties with Japan, South Korea, and Australia have slowed proliferation, but it can also cause Great Power 'security dilemmas' (Booth and

Wheeler, 2008) but Rebecca Davis Gibbons told me: 'the nuclear umbrella has strengthened U.S. influence' (Interview: 28 November 2023).

An interviewee with knowledge of dialogues involving the U.S. and China told me:

The U.S. has always seen its role as, on the one hand to provide security for its allies and, on the other, to prevent the allies from acquiring nuclear weapons. But you are starting to see that order fraying at the edges...My sense is the U.S. will be forced to make very specific choices. I was told the Chinese would greatly prefer the Korea and Japanese to have their own nuclear weapons. That would separate the two issues between the alliance and the U.S. and make it way clearer and more transparent (Interview: 7 November 2023).

This assessment would seem to be corroborated by recent statements by the Chinese Ministry of Foreign Affairs at the NPT Preparatory Committee in Geneva (2024):

We urge the United States to abandon the “nuclear sharing” and “extended deterrence” arrangements, withdraw all nuclear weapons deployed overseas, refrain from the development and deployment of global missile defence systems, immediately cease deploying land-based intermediate-range missiles in the Asia-Pacific.³⁷

Therefore, the practice of nuclear sharing can ease proliferation pressures, but it also strengthens the hand of the nuclear power providing those guarantees. Ultimately “extended deterrence is based on trust. A state decides to abstain on an allied nuclear state’s capability and political will to perform this task in the case of a nuclear attack’ (Cronberg, 2021: 60). Though as Professor Sir Lawrence Freedman told me:

The difficulty with extended deterrence is what it's always been, that it is incredible that you put yourself at risk for another state. To the extent that somebody challenges it, and they get it wrong, then the result is pretty catastrophic (Interview: 12 October 2023)

7.5. Great Power transitions

Great powers change over time. Powers rise and fall. Martin Wight’s view that “Great-power status is lost, as it is won, by violence. A great power does not die in bed” (1979: 48) reminds us that the mechanism for change through history has tended to be military victory or defeat—the primary institution of ‘war’ and yet we have argued earlier that because of nuclear weapons this has transformed into ‘war avoidance’. The question, therefore, arises as to how to account for power shifts amongst great powers in a nuclear age when war is to be averted. Professor Andrew Hurrell told me:

³⁷ [Remarks by Sun Xiaobo, Director General of the Department for Arms Control of the Foreign Ministry of China](#)—23 July 2024 published by Reach Critical Will and accessed 11 August, 2024

Great Power Management in 2023 is very different from the discussions about Great Power Management in the early 1970s, let alone, you know, in the mid-20th century or the 19th century. Because there are so many deep, deep structural cross-linkages now. (Interview: 27 September 2023)

The critical point is that power shifts over time for various reasons. Powers leave their mark through the institutions they create, but they leave problems, too. German foreign minister, Frank-Walter Steinmeier, noted, '[t]he world is recognisably searching for a new order, without having one. And from that, conflicts are harder to solve today than 10 or 20 years ago.'³⁸

This can leave challenges to securing peaceful transitions and maintaining order in a system where the recognised great powers no longer match the reality of great powers. Some, with evidence from history on their side, point to the fact that these power transitions—when a rising power is overtaking an established power and the established power, as all established powers do, seek to hold on to its position by forcibly keeping the emerging power down—often referred to as 'containment' (Mazarr, 2022: 8) tend to end in war. Organski and Kugler argue that:

Should war come between the United States and China in the future it will not be a result of a power transition. The greater risk is that conflict will result from the misperception that such a transition is imminent, and the miscalculation by decision-makers (2009: 408)

This observation raises the question, when do shifts in power lead to war in the nuclear age? Lawrence Freedman has observed that:

[F]or the last seven decades, any prospectus for a Great Power war has had to factor in the possible use of nuclear weapons. Should two nuclear weapon states fight each other, then the result could well be mutual suicide unless one side accepted defeat without using the most powerful weapons at its disposal (2019:115)

Of course, others argue that the very fact that the storm clouds of war are gathering again on the horizon is a further reason to strengthen non-proliferation cooperation. However, disarmament, which had been a feature of the post-Cold War world, has ended. Nuclear weapons states are upgrading their nuclear systems, and the number of nuclear warheads is increasing for the first time since 1988³⁹.

³⁸ Quoted in Alison Smale, 'Germany's foreign minister, a man in the middle', New York Times (19 November 2014) and cited in Benjamin Zala, 2016: 368.

³⁹ ['The Security Paradox in US-China Relations'](#) by Peter Burds—September, 2024—published by the Arms Control Association—accessed 11 October, 2024.

8. Great Power practice in the INWO

8.1 NPT Preparatory Committee

During my research, reference was made several times to the influence that the size and expertise of respective delegations can have on the working and decisions of meetings:

The problem is even more difficult for smaller and medium-sized countries, which find it difficult to have diplomatic missions outside of the UN in New York and so don't attend NPT Review Conferences and Conference on Disarmament meetings outside of New York (Interview: 18 August 2023)

Examining the attendance of the most recent NPT Preparatory Committee (2024) would seem to confirm this (Table 7):

Country	Delegation size (NPT—2024)	Spoken contributions (2024) ⁴⁰
United States	35	11
Japan	33	8
France	27	11
Saudi Arabia	25	6
South Korea	24	8
Indonesia	22	14
Russia	21	22
UK	20	9
Austria	19	8
China	16	12

Table 7. Relative NPT delegation size

There are 189 member states of the NPT and two Observers (The Holy See and Palestine), a total of 191 who can attend the NPT Review Conferences; of these, 113 sent delegations, and 84 spoke in the proceedings. This is significant because 76 NPT members could not send a single representative to Geneva. Moreover, of the 113 who did send delegations, only 84 spoke during the two weeks of the PrepCom. Most of the contributions were made by the Great Powers, the exceptions being Indonesia—who were delivering statements on behalf of the Non-aligned Movement (NAM) and Japan, who for historical reasons are recognised as having moral authority in the NPT and are given precedence in meetings.

This approach can be observed in the conduct of the great powers at the Second NPT Preparatory Committee meeting in Geneva between 22nd July and 2nd August 2024. The U.S. representative noted, “the People’s Republic of China is rapidly expanding its nuclear arsenal while avoiding engagement. Given the circumstance, it is reasonable to ask

⁴⁰ Source—[Statements—NPT PrepCom—2024](#)—Reaching Critical Will—accessed 19 August, 2023

whether the PRC genuinely shares a commitment to nuclear restraint and the NPT's Article VI goals."⁴¹

The representative of China, Sun Xiaobo, Director General of the Department for Arms Control of the Foreign Ministry of China, responded:

Requiring countries with vast differences in nuclear policies, nuclear capabilities and external security environment to undertake the same nuclear disarmament obligations is unfair unreasonable and will surely lead the international nuclear disarmament process to nowhere. The two countries with the largest nuclear arsenals must continue to fulfil their special and primary responsibilities for nuclear disarmament...

The UK representative pointed out that:

This Prep Com takes place in an ever more unstable and dangerous world. Global arms control is under huge strain. Russia's illegal war of aggression against Ukraine, its irresponsible nuclear rhetoric, and reckless endangering of nuclear power plants are not the behaviours of a responsible nuclear weapons state. Iran and the DPRK continue to undermine the non-proliferation architecture and threaten international security. A lack of transparency from other states, including China, on the nature and extent of their nuclear programmes also fuels international concern⁴²

The Russian representative, Mr Mikhail Kondratenkov, Deputy Head of the Russian Delegation stated:

Contradictions across the world have built up, bringing a number of brewing conflicts to active phase and creating new hotbeds of tension. The United States and its allies continue to aggravate the Ukrainian crisis, which was brought about by NATO's unchecked expansion and the West's nurturing the anti-Russian Kiev regime relying on ultra-nationalist actors. Desperate attempts to inflict "strategic defeat" on Russia and remove our country from the international arena as a sovereign stronghold of those who struggle for a just, multi-polar world order, are fraught with a direct clash between nuclear powers.⁴³

The French spokesperson, Ambassador Camille Petit, Permanent Representative of France to the Conference on Disarmament responded:

Russia's use of irresponsible nuclear rhetoric for coercive purposes that constitute a deviation from the defensive nature of nuclear deterrence; - Russia's weakening of the European and international security architecture, whether it be the initial violation of the Intermediate Nuclear Forces Treaty, the de-ratification of the Comprehensive Nuclear-Test-Ban Treaty or the suspension of New START; - the

⁴¹ [Remarks by Ambassador Scheinman, Special Representative of the President for Nuclear Non-proliferation](#) (22 July 2024) published by Reaching Critical Will—full text accessed 11 August 2024

⁴² Remarks by Ambassador David Riley Permanent Representative, UK Mission to the UN in Geneva—this may have been actually delivered by Stephen Lillie CMG, Director for International Defence and Security at the FCDO (researcher observation--confirmation required)—Tuesday 23 July 2024 (accessed 11 August, 2024)

⁴³ [Remarks of Mikhail Kondratenkov, Deputy Head of the Russian Federation Delegation](#)—23 July 2024, accessed from Reaching Critical Will web-site 11 August, 2024

announcements of Russian nuclear weapons deployments in Belarus, which represent a further erosion of the international architecture of arms control and strategic stability in Europe. In this context, we call on Russia to cease its aggression, reverse these developments and take the responsible actions expected of a nuclear-armed state.⁴⁴

The Great Powers did not have it all their way. Many states reminded them of their responsibilities to disarm. An illustration is the remarks of Ambassador Mxlosi Nkosi of South Africa:

While nuclear-weapon States committed to an “unequivocal undertaking” to accomplish the total elimination of their nuclear arsenals and agreed to effective measures for further progress on nuclear disarmament - in accordance with their obligations under Article VI, of the Nuclear Non-Proliferation Treaty (NPT) - these developments, have impeded forward movement...Any attempts to reinterpret, backtrack or even abandon these commitments will erode trust and undermine the legitimacy of the Treaty.⁴⁵

The purpose of including these exchanges is to illustrate a core problem of dysfunctionality at the heart of the INWO. The NWS are meant to be responsible. To act with restraint recognising their privileges in the system and to preserve their legitimacy. Yet these exchanges are more destabilising, and as far as the NNWS states are concerned, exasperating. Such exchanges undermine great power leadership and drive NNWS to consider more radical solutions such as the TPNW. It is also an argument for private diplomacy of which the P-5 process is a strong example. When tough things which need to be said could be said in private allowing more constructive and restrained contributions at forums like the NPT RevCon. It was confirmed to me in my private discussions that often the diplomats on the ground in Geneva, Vienna and New York had a better feel for the appropriate conduct of such meetings, but that increasingly messaging is dictated by capitals to convey general messages rather than specific contributions to address the substance of the relevant working groups of the NPT RevCon and PrepComs.

8.. 2. Negotiating the Treaty on the Prohibition of Nuclear Weapons (TPNW)

The Treaty on the Prohibition of Nuclear Weapons (2017), which came into force in 2021 and currently has 94 signatories and 73 states parties (May 2025), is the type of treaty many states would like to have seen in place of the NPT. There was soaring rhetoric from TPNW states in the final declaration:

⁴⁴ [Remarks of Ambassador Camille Petit, France to the NPT Prep Com—23 July 2024](#)—accessed by the Reaching Critical Will web-site on 11 August, 2024—translation from original text using Ms Word

⁴⁵ [Remarks of Ambassador Mxlosi Nkosi of South Africa to the NPT Prep Com—22nd July, 2024](#) published on Reaching Critical Will web-site and accessed 12 August 2024

We reject attempts to normalize nuclear rhetoric and any notion of so-called “responsible” behaviour as far as nuclear weapons are concerned. The threat of inflicting mass destruction runs counter to the legitimate security interests of humanity as a whole. This is a dangerous, misguided and unacceptable approach to security. Nuclear threats should not be tolerated.

We, the States Parties to the TPNW, will not stand by as spectators to increasing nuclear risks and the dangerous perpetuation of nuclear deterrence. We are resolutely committed to the universalization and effective implementation of the Treaty and the fulfilment of the Vienna Action Plan⁴⁶. We will work relentlessly to achieve a world free of nuclear weapons for the sake of current and future generations. We undertake and recommit to ensure that nuclear weapons are never again used, tested or threatened to be used, under any circumstances, and will not rest until they are completely eliminated⁴⁷

But those attending knew that without the participation of the recognised nuclear weapons states under the NPT, its aspirations would remain unfulfilled. More than that, the TPNW became something of a unifying theme for the P-5, who issued a joint statement seeking to dissuade member states from signing:

We reiterate our opposition to the Treaty on the Prohibition of Nuclear Weapons...The TPNW fails to address the key issues that must be overcome to achieve lasting global nuclear disarmament. It contradicts, and risks undermining, the NPT. It ignores the international security context and regional challenges, and does nothing to increase trust and transparency between States. It will not result in the elimination of a single weapon. It fails to meet the highest standards of non-proliferation. It is creating divisions across the international non-proliferation and disarmament machinery, which could make further progress on disarmament even more difficult. We will not support, sign or ratify this Treaty.⁴⁸

In her book, *The Hegemon's Toolkit* (2022), Rebecca Davis Gibbons sets out how the United States seeks to build compliance with the NPT-based nuclear order through a range of actions from low-cost diplomacy aimed at ‘embedded’ or allied states to high-cost diplomacy and positive inducements targeting neutral or wavering states, to coercion for antagonistic or hostile states (Table 1.2, 2022: 26). Adam Watson saw this trend in the wider system when he noted, ‘The principal effect of hegemonic influence is to induce other states and communities in the system to conform more closely to the purposes and practices of the hegemonic power’.⁴⁹

Most of this is, of course, conducted through behind-the-scenes diplomacy. Still, in the case of the TPNW, this has occasionally broken out into the open. An example of this

[46 Draft Vienna Action Plan](#)--TPNW/MSP/2022/CRP.7—22 June 2022

⁴⁷ [Second Meeting of the State Parties to the Treaty on the Prohibition of Nuclear Weapons](#)--TPNW/MSP/2023/CRP.4/Rev.1 dated 1 December, 2023

⁴⁸ [P5 Joint Statement published by the UK Mission to the UN in New York](#)—24 October, 2018

⁴⁹ Watson, J.A., 2013. *Hegemony & history*. Routledge. p. 104

'behind the scenes diplomacy' was published in 2016 when ICAN released 'unclassified' communications from the U.S. to NATO Allies. In the letter from the U.S. Mission to NATO dated 17 October 2016, Christina Cheshier (U.S. Perm Rep to NATO) writes:

For those Allies participating in the OEWG [Open Ended Working Group of the UN], we strongly encourage you to vote "no" on any vote at the UN First Committee on starting negotiations for a nuclear ban treaty...NATO will remain a nuclear alliance. For this reason, we feel efforts to negotiate an immediate ban on nuclear weapons or to delegitimize nuclear deterrence are fundamentally at odds with NATO's basic policies on deterrence and our shared security interests. In light of the current security environment, it is important for us to avoid introducing any doubt regarding Alliance unity or the Alliance's commitment to deter or defend against any threat to the safety and security of NATO populations.⁵⁰

We have no way of knowing whether the communications are genuine, though neither NATO nor the U.S. have denied them. Moreover, when the resolution⁵¹ proposing negotiation for a ban treaty was brought before the UN General Assembly for a vote on 23 December 2016; the resolution was agreed to by 113 nations in favour to 35 against with 13 abstentions. Of the 35 nations against the resolution were 27 of the then 28 member states of NATO; three nations subject to U.S. nuclear guarantees—Japan, the Republic of Korea and Australia; two of the remaining nuclear-armed states—Russia and Israel. The Netherlands was the only NATO member to abstain. Of the other NWS, China, India, and Pakistan abstained, and DPRK did not vote. Representatives of NGOs working in the field in support of the TPNW told me:

We are trying to get some of the NATO countries to observe the meetings of state parties to the TPNW. As observers they don't join, but they can show their genuine interest in the goal of the treaty.

The Minister of State of an observing country told me that the U.S. had threatened them to stop collaborating on intelligence if they show up at that meeting. Of course, none of that has happened. But they showed up to the meeting. They observed the treaty. But those are very explicit threats.

We've seen the same in Switzerland where we are currently trying to get the government to sign the TPNW. The defence minister had a meeting with the NATO Secretary General, and he was kind of saying that if Switzerland is interested in any western weaponry they better stay away from the TPNW. Of course, all this happens behind closed doors, so it's very hard to prove.

There have been media reports with former colonial states trying to influence the position of the of, for example, African countries on the TPNW. Even though most African countries are part of the [African nuclear free zone](#). The sheer fact that

⁵⁰ ["US pressured NATO states to vote no to a ban"](#) published by ICAN—1 November, 2016 (accessed 8 August 2024). It has not been possible to verify the published documents as being authentic but there is no record of a denial by the US or NATO.

⁵¹ ["Taking forward nuclear disarmament negotiations"](#) UN General Assembly A/C.1/71/L.41 dated 14 October 2016. [Voting declaration First Committee](#), UN 27 October, 2010

there's more countries joining freaks out the headquarters in Paris or London. (Interview: 27 October 2023)

Another example that has attracted attention was the U.S. response to a proposal by the Albanese government to change Australia's voting position on the TPNW to 'abstain' rather than 'against'. The reaction from the U.S. embassy in Canberra was to remind Canberra that the TPNW would 'not allow for U.S. extended deterrence relationships' from which Australia benefited.⁵² In 2018, U.S. Secretary of Defense James Mattis made it clear to Sweden that ratifying the TPNW would end its partnership with NATO" (Davis Gibbons, 2024: 341). In March 2017, the United States reportedly "used an expression indicating its strong aversion" about their potential participation in the upcoming ban treaty negotiations, in meetings with Japanese leaders (The Japan Times March 16, 2017). Japan did not participate, despite strong domestic pressure to do so (The Japan Times, March 28, 2017)" (2024:339). Rebecca Davis Gibbons has also noted:

Of the various emerging norms the United States has resisted in recent decades, the anti-nuclear weapon norm—enshrined in the 2017 Treaty on the Prohibition of Nuclear Weapons (TPNW)—is perhaps most threatening (2024: 335)

An area of further research would be why? Why do the U.S. regard the TPNW as 'most threatening'? Why are Paris and London 'freaking out' about countries from Africa joining TPNW? Do they know something we don't? After all the P-5 as recently as January 2022 voluntarily committed themselves to: progress on disarmament with the ultimate goal of a world without nuclear weapons.⁵³ Yet, the latest UK Strategic Defence Review (2025) states clearly, 'The Nuclear Non-Proliferation Treaty (NPT) is the cornerstone of the non-proliferation and disarmament regime.'⁵⁴ But how does this differ from the aims and aspirations of the TPNW, which codifies in the form of an international treaty what was expressed by the P-5. Moreover, Article VI of the NPT advocating disarmament is moving into reverse with China and the UK increasing warhead stockpiles and the United States and Russia embarking upon cast modernisation programmes. Is it simply a question of means and ends, or, as would be suggested here, is this evidence of a kind of social bargaining at the heart of the INWO in which NNWS are withholding recognition of the legitimacy of the NPT NWS due to a perceived failure of their great power management of the order in exercising responsibility and restraint. The evidence here suggests it is more of the latter.

⁵² ['US Big Defense and Australia's Nuclear Crossroads'](#) by Dan Steinbock, published by Global Policy 21 November, 2022

⁵³ The White House—'[Joint Statement of the Leaders of the Five Nuclear Weapons States'](#) 3 January 2022 and accessed 11 October, 2024

⁵⁴ HMG, 2025. Strategic Defence Review: Making Britain Safer: Secure at Home, Strong Abroad (p.100).

8.3: The IAEA and budgetary control

A further way Great Powers exert influence is through budgetary contributions to institutions. Consider, for example, the IAEA. The IAEA has 179 member states, and its annual budget in 2023 was 430 million euros. The P5/N5 recognised nuclear powers under the NPT were responsible for almost 50% of the total budget.

Country	% of total IAEA Budget 2023	Euro contribution 2023	Plus U.S. dollar contribution	Nuclear weapons
United States	25%	87,124,765	13,981,226	NWS-NPT
China	14.76%	50,369,166	8,066,630	NWS-NPT
Japan	7.728%	26,932,007	4,321,871	NNWS—U.S.-NG
Germany	5.87%	20,488,256	3,287,825	NNWS—NATO-NG
United Kingdom	4.2%	14,668,323	2,353, 881	NWS-NPT
France	4.154%	14,476,647	2,323,120	NWS-NPT
Russia	1.75%	6,255,560	1,003,852	NWS-NPT
India	1.004%	3,445,805	551,846	NWS
Israel	0.54%	1,881,893	301,994	NWS

Table 8. IAEA budget contributions of major powers

The P-5/N-5 are all also *de facto* permanent members of the IAEA Board of Governors. Budgets are a way of securing influence on international institutions such as the UN (see Illustration 14 below), World Bank/IMF, and World Health Organisation (Barnett and Finnemore, 1999:699).

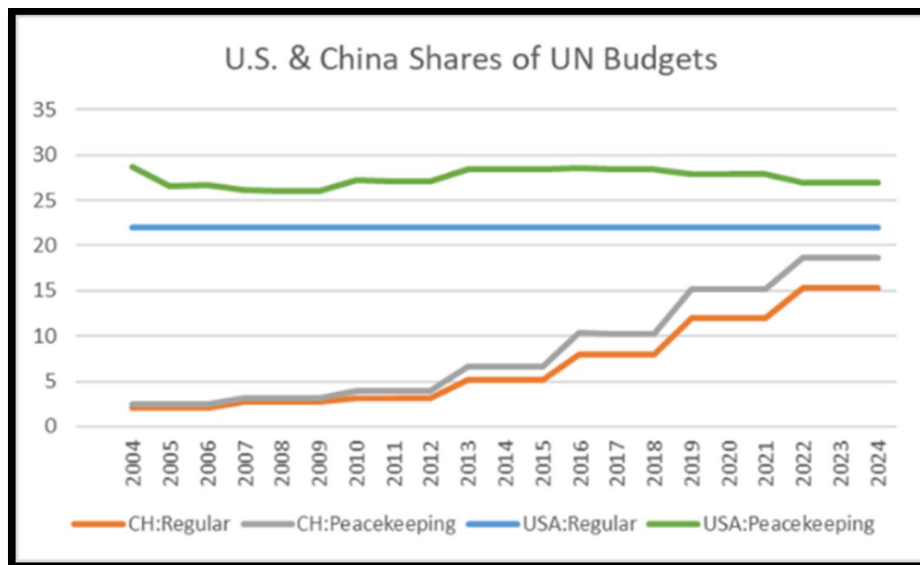


Illustration 14. Comparative UN contributions U.S. v China (Stimson Center)⁵⁵

⁵⁵ Source: Stimson Center—‘China’s Emerging Financial Influence at the UN Poses Challenge for US’ by Andrew Hyde, published 4 April, 2022 (accessed 23 August, 2024).

Douglas Lemke and Suzanne Werner wrote:

a dominant state in a system creates economic, military, and diplomatic rules which govern that system. These rules are referred to as the "status quo." We also assume that the creator of these rules is satisfied with the status quo it has created, although other states might not be. (1996: 23)

9. The Way Forward?

There seems to be no shortage of fine words but a scarcity of corresponding actions. To paraphrase the lament of British foreign secretary Sir Edward Grey on the eve of World War I, 'The lights are going out all over the INWO, and we may not see them lit again in our lifetime'. Adam M. Scheinman had argued for a return to the little-recalled U.S.-Soviet Agreement on the Prevention of Nuclear War (1973), which is still in effect and which agreed that:

Guided by the objectives of strengthening world peace and international security, Conscious that nuclear war would have devastating consequences for mankind, Proceeding from the desire to bring about conditions in which the danger of an outbreak of nuclear war anywhere in the world would be reduced and ultimately eliminated⁵⁶

Ambassador Scheinman is a consequential figure who served as the president's special representative on non-proliferation between 2014 and 2017. He wrote the article for the Bulletin of Atomic Scientists when temporarily freed from public office in March 2018⁵⁷. He was (2021-2025) Special Representative of the President for Nuclear Non-proliferation under President Biden. Scheinman's 2018 article also proposed a way in which the 1973 Agreement could be developed:

How would it work? For starters, the two sides could simply reaffirm the agreement, which remains in effect. At a time when both sides are modernizing their nuclear arsenals and when nuclear rhetoric has grown distressingly heated, an affirmation that Washington and Moscow wish to "remove the danger of nuclear war and of the use of nuclear weapons" would be welcome. As a further step, the two sides could use the agreement as the basis for a new political understanding—a multilateral understanding that also included China, France, and the United Kingdom.

This leads to a second step: The Great Powers must meet. Management cannot take place in isolation. It is a social process. In this respect, the recent public arguments at the NPT Prep Com between Russia and China and the United States, United Kingdom and France should not be viewed as a failure but as a sign of health. The more that Great Powers

⁵⁶ [US-Soviet Agreement on the Prevention of Nuclear War](#) signed 22 June 1973

⁵⁷ ['To prevent nuclear war, borrow from 1973'](#) by Adam Scheinman, published by The Bulletin of Atomic Scientists—14 March 2018

meet, the more they will find ways to manage their relations and the INWO. Those opportunities are few and getting fewer in the INWO. This was not always the case. Indeed, if we look back over the past twenty years, we will see the following examples of negotiations and meetings taking place at a high level (Table 7 below).

The table illustrates the seriousness of the current breakdown in contact between Great Powers of the INWO. Currently, the only forum in which the U.S. and Russia have contact is the P5 process, which is the subject of the next chapter, but this is only at a technical level. Great Powers are not unaware of the crisis. On 2 June 2023, U.S. National Security Adviser Jake Sullivan offered to commence talks on 'managing nuclear risks' 'without preconditions. (no such meetings have yet occurred as of August 2025).

Yet, one of the purposes of secondary institutions is to facilitate the undertaking of the primary institutions. Of the twelve negotiations/discussions between the U.S. and Russia on nuclear issues this century, the only one of the agreements/fora still in place is the P5 process, and that only at a scaled-back technical level. Meanwhile, the CTBT is yet to come into force (Russia de-ratified the CTBT 2023), and the FMCT remains stuck (though the P5 are believed to have stopped production of fissile material—India, Pakistan, Israel, and North Korea continue). This needs to change.

Rose Gottemoeller, who negotiated the New START (see: *Negotiating the New START Treaty* (2021)) for the U.S. and served as Deputy Secretary General of NATO (2016-2019), told me:

So, I think that the five at the moment, it's not at a particularly good space, but it is the only game in town, so we're stuck with it and I think we need to keep trying to do all we can. (Interview: 12 September 2023)

One of the most staggering facts from the research, which a current P-5 official confirmed, was that the nine nuclear weapons states and the nine men who collectively hold the fate of the 184 non-nuclear weapons states and 8.3 billion people in their hands have never actually met together to discuss nuclear weapons. Dialogue is a vital responsibility which accompanies great power in international society. It is a fundamental norm of international society and order that you are free to disagree strongly, but that does not absolve you from the duty to discuss your disagreements.

Forum/Treaty	Participants	Level	Period
ABM Treaty	U.S. and Soviet Union/Russia	Principals and inspections	1972-2001 (U.S. withdrawal)
INF Treaty	U.S. and Russia	Principals plus on-site inspections via Special Verification Commission	1991-2019 (U.S. and Russian withdrawal)
Open Skies Consultative Commission (surveillance flights for arms control)	32 signatories mostly NATO and former Warsaw Pact countries	Official	2002--(U.S. withdrew 2020. Russia withdrew 2021)
SORT (Moscow Treaty)	U.S. and Russia	Principals	2002-2012 (superseded by New START)
G8 Global Partnership Against the Spread of WMD	G8 (including Russia)	Principals	2002—Russia excluded from 2014
NATO-Russia Council	NATO+ Russia	Principals	2002-2022 (Russia excluded following the second Ukraine invasion)
Six-Party Talks (North Korea)	China, North Korea, South Korea, Japan, Russia, United States	Principals	2003-2007
The Global Initiative to Combat Nuclear Terrorism (GICNT)	Co-chaired by Russia and U.S. and involving 89 countries	Officials	2006—(currently suspended—last meeting 2019).
New START	Russia and the United States	Principals (plus 18 on-site inspections on each side)	2009-2023 (Russian withdrawal)
U.S.-Russia Bilateral Presidential Commission	Russia and the United States	Principals	2009-2014 (halted due to Russian invasion of Crimea)
P-5 process	Russia, United States, China, France and United Kingdom	Meetings continue at a technical level	2009-
Nuclear Security Summits	P-5 plus 47 states and 3 international organisations	Principal level meetings	2010-2016
JCPOA (Iran)	China, Russia, UK, France, Germany, EU, Iran and United States	Principals	2013 (U.S. withdrawal 2018)

Table 9. Nuclear weapons dialogues

In her book, *Negotiating the New START Treaty*, Rose Gottemoeller (a fluent Russian speaker) advocated continued engagement, whatever the pressures, said:

I will continue to press for bringing back sustained delegation work, not shying away from the necessity of sitting together for days, weeks, or even months to get the right results for U.S. national security. These working relationships are not the same as friendships. We negotiate with friends and allies, just as often as we are negotiating with those whose beliefs and goals differ from our own—

sometimes intensely so. Nevertheless, if we are to solve problems without recourse to military force, we must talk. (2021: 193)

Finally, if we wanted a working definition of what Great Power Management could look at, we could consider the wording of the U.S.-Soviet Agreement on the Prevention of Nuclear War (1973) for all NWS, inside and outside the NPT, to adopt. Article I of the Treaty reads:

The United States and the Soviet Union agree that an objective of their policies is to remove the danger of nuclear war and of the use of nuclear weapons. Accordingly, the Parties agree that they will act in such a manner as to prevent the development of situations capable of causing a dangerous exacerbation of their relations.⁵⁸

10. Conclusion

The purpose of the chapter was to explore the role of the PI of great power management in the context of the INWO. We identified that there is a profound difference between 'great power' and 'great power management'. In the INWO, the management function has largely been carried out and accepted as being from the United States, but in cooperation with Russia. The management function in order to afford privileges in the system, but they also come with responsibilities. The chief responsibility is for great powers to manage relations between themselves, and in the INWO, especially this means relations between Washington and Moscow. Yet, this we have seen is where institutions for bilateral and multilateral dialogue established by Reagan/Gorbachev, Clinton/Yeltsin and Obama/Medvedev have been unravelling. Order depends on great power management, and when it is absent, it leads to disorder. To test this proposition, we now embark upon two case studies, first the Prague Agenda of Barack Obama and second the P-5 process proposed by Des Browne and Margaret Beckett.

⁵⁸ US Department of State: [Agreement between the United States and the Soviet Union on the Prevention of Nuclear War](#)—22 June, 1973—accessed 11 October, 2024

Chapter 7. Case Study 1: The Prague Agenda

1. Introduction

Today, the Cold War has disappeared but thousands of those weapons have not. In a strange turn of history, the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up. More nations have acquired these weapons. Testing has continued. Black market trade in nuclear secrets and nuclear materials abound. The technology to build a bomb has spread. Terrorists are determined to buy, build or steal one. Our efforts to contain these dangers are centered on a global non-proliferation regime, but as more people and nations break the rules, we could reach the point where the center cannot hold.

Address by President Barack Obama Hradčany Square, Prague, 5 April 2009¹

In recent years, reflections on the Prague Agenda have been accompanied by epithets such as ‘Obituary’ (Smetana, 2018), ‘Plus ça change?’ (Douglas and Futter, 2016), ‘Faltering’ (Pifer, 2015), ‘Stalled’ (Joseph, 2014), ‘Unintended consequences’ (Brooks, 2015), ‘Paradox’ (Feffer, 2016), ‘Dangerous’ (Rademaker, 2016), ‘Post-Truth’ (Pollack, 2017). Shane Mason sums up the mood:

after two terms of disagreeing on nearly every issue related to nuclear policy, the administration’s allies and critics now seem to agree on one thing—Obama’s nuclear record has been a disappointment at best and a failure at worst (2016)²

The objective of this chapter is to set out what the Prague Agenda was and what it was not. It will argue that the Prague Agenda centred upon nuclear security. However, it became conflated with the parallel agenda of George Schultz et al.³ set out in their seminal *Wall Street Journal* (WSJ) article, ‘Towards a World Free of Nuclear Weapons’⁴ which focused on disarmament.⁵ The Prague Agenda failed as judged by the WSJ, but it was a success as judged on its own terms.

This case study provides empirical evidence of several earlier theoretical claims: Table 1 summarises the overlap between key claims made in the thesis and relevant areas of the Prague Agenda. Here, we see that the Prague Agenda overlaps fully or partially with all eight claims of the thesis and is analytically mutually supportive.

¹ [‘Remarks by President Obama In Prague As Delivered’](#) 5 April 2009 published by The White House.

² [‘In Defense of Obama’s Nuclear Record’](#) by Shane Mason published in *National Interest*, 22 April 2016

³ Co-authors Henry Kissinger, William Perry, and Sam Nunn

⁴ Shultz, G.P., Perry, W.J., Kissinger, H.A. and Nunn, S., 2007. Toward a world without nuclear weapons. [The groundbreaking Wall Street Journal op-ed series](#). Washington, DC: NTI.

⁵ This was part of a series of articles and conferences—*Towards a Nuclear-free World* (Schultz, Perry, Kissinger, Nunn, 2008-WSJ); *How to Protect Our Nuclear Deterrent* (Schultz, Perry, Kissinger, Nunn, 2010-WSJ); *Deterrence in the Age of Nuclear Proliferation* (Schultz, Perry, Kissinger, Nunn, 2011-WSJ).⁵

2. Comparative analysis of theory and empirics

Key thesis claim	Relevant 'Prague' empirics	Assessment
Inter-national order	U.S., Russia and Iran are key state actors	Partial: can understate the importance of key individual actors e.g. Obama and Putin
International Nuclear Weapons Order (INWO)	Prague Agenda centred on nuclear non-proliferation to State and non-state actors. Also, arms control New START	Full: Only one of the seventeen goals of the Prague Agenda relates to peaceful uses—International Fuel bank
The primary institution of 'War' better understood as 'War Avoidance' in INWO	U.S. Russia 'reset'; Iran non-proliferation; engage China in arms control talks	Full: Priority given to managing relations between U.S. and Russia
Low politics and poor relations in New York (UN) undermine Vienna agencies' (UN) vital work on nuclear security.	CTBT; Nuclear Security Summits (NSS) and JCPOA	Partial: IAEA limited involvement in NSS and JCPOA and failure to ratify CTBT
Primary institution of Great Power Management dysfunctional in INWO	Moscow Summit, New START and JCPOA	Partial: a limited sense of responsibility, cooperation tactical and narrowly based. The pre-eminence of the U.S. can erode the balance of power in the order
U.S. leadership of the INWO	Prague Agenda, NSS, UNSC1887, UNSC 1929	Partial: The U.S. could not have achieved results without Russian cooperation.
Non-proliferation of nuclear weapons the unifying <i>raison de système</i> of the INWO	NPT RevCon (2010), NSS, UNSC 1887 and JCPOA	Full: Disarmament and deterrence divide, non-proliferation unites
'Baffling complexity' a defining feature of INWO	NSS, P5 process, JCPOA, New START, IPNVD	Full: Instinct to work outside of UN, NPT and Conference on Disarmament

Table 10: Comparative analysis of empirical analysis and major theoretical claims

2.1 Presidential transition process

One reason is openness and knowledge sharing, which is the rotation between government and non-government organisations such as foundations and think tanks. Gary Samore⁶ called this pattern the 'circulation of elites' and compares the U.S. system to other countries:

In most countries, the career paths of foreign policy specialists rarely cross in and out of government. For the most part, academics and experts remain in universities and think tanks for their entire careers, rarely serving a stint in government, whilst civil servants serve out their careers in harness in government ministries, although some enter the private world of universities and think tanks upon retirement (2013: 23) ⁷

⁶, President Obama's Co-ordinator for Weapons of Mass Destruction Counter-Terrorism and Arms Control, shortened to the 'WMD Czar' in the media (2009-2013)

⁷ 'Making a Difference: Creating and Implementing the Prague Agenda' by Dr Gary Samore in Carnegie Reporter magazine Summer, 2013 (vol.7/no.2).

Of course, the scale of the presidential transition in the U.S. is vast, with 4000 presidential appointments, of which 1200 are sufficiently senior to warrant Senate Confirmation.⁸ By contrast, the recent change in government in the UK (July 2024) would see 111 new ministerial appointments,⁹ all from the legislature and 125 special advisor appointments.¹⁰ In the UK, deep knowledge and expertise are entrenched in a strong and capable permanent civil service that advises ministers. In the U.S., presidential appointees¹¹ come with immense relevant expertise, ready not to receive policy advice but to give it. Outside government, various think tanks and institutes produce a wealth of data, conferences, and reports.¹² Indeed, if we were to factor in the invaluable ‘Nuclear Notebooks’¹³ produced and updated by the *Bulletin of Atomic Scientists*, we can say that most of what we know about global strategic nuclear forces and capabilities outside of NATO is due to the U.S.’s transparency, scholarship and openness.¹⁴ In the INWO the U.S. chooses the prevailing narrative, frames the argument, sets the questions, and helpfully provides the research and analysis for the answers.

The chosen approach is consistent with the chosen methodological approach and the English School’s commitments to “interpretivist positions: to historicism and historical explanation...and to explaining social behaviour by reference to the meanings that actions have for socially situated agents” (Bevir and Hall, 2020: 154).

3. The Road to Prague

3.1. Nuclear terrorism threat ‘the driving force’

As with the River Nile, there are many claims for being the source of the Prague Agenda. The most frequently cited was the op-ed in *The Wall Street Journal* by Schultz, Perry,

⁸ [‘The Presidential Transition Guide’](#) (2023) published by the Center for Presidential Transition/BCG

⁹ including five ministers granted a Life peerage

¹⁰ [‘General Election 2024: New ministers appointed to Kier Starmer’s government’](#) published by the Institute for Government—12 July 2024 and accessed 16 October 2024.

¹¹ Such as Rose Gottemoeller, Steve Fetter, Gary Samore, Samantha Power, Michael McFaul, Jon Wolfsthal, Madelyn Creedon, Susan Rice and Tom Countryman in the nuclear weapons space

¹² The Federation of American Atomic Scientists, the Arms Control Association, the Nuclear Threat Initiative, Carnegie, James C. Martin, Brookings, Hoover Institute, Stimson Centre etc.

¹³ [‘Russian Nuclear Weapons, 2023’](#); [‘Indian Nuclear Weapons, 2024’](#); [‘Pakistan Nuclear Weapons, 2023’](#); [‘Israeli Nuclear Weapons, 2021’](#); [‘United Kingdom Nuclear Forces, 2021’](#); [‘French Nuclear Weapons, 2023’](#); [‘US Nuclear Weapons, 2021’](#) and [‘North Korean Nuclear Weapons, 2021’](#) Nuclear Notebooks, Bulletin of Atomic Scientists.

¹⁴ It is acknowledged that other sources, such as the Stockholm International Peace Research Institute (SIPRI), provide invaluable data. However, the chapters on nuclear forces are mostly written by [Hans M. Kristensen](#) of the Federation of Nuclear Scientists and co-author of the ‘Nuclear Notebooks’ published in the Bulletin of the Atomic Scientists.

Kissinger, and Nunn titled *A World Free of Nuclear Weapons* (4 January 2007),¹⁵ I want to suggest an earlier date. In his autobiography, *A Promised Land* (2020), Barack Obama reflects on his election to the U.S. Senate (January 2005):

One feature of the Senate that excited me was the ability it gave me to influence foreign policy... Since college, I'd been interested in nuclear issues, and so even before my swearing-in, I had written to Dick Lugar, the Chair of the Foreign Relations Committee, whose signature issue was nuclear non-proliferation, to let him know that I hoped to work with him. (2020: 61)

Gary Samore told me:

[Obama] had a personal interest in nuclear security and in particular, the threat of terrorist groups getting access to nuclear material or nuclear weapons. *That was the driving force behind a lot of the Prague agenda.* (Interview: 4 October 2023).

During the Obama administration, Professor Steve Fetter served for five years in the White House Office of Science and Technology Policy, said:¹⁶

As a Senator, he was very interested in these issues and that is unusual, especially today, almost no one in Congress is interested in nuclear issues... Senator Obama was interested in and invested in these issues and in particularly in the risk of nuclear terrorism. (Interview: 21 September 2023).

Rose Gottemoeller¹⁷ who was the chief U.S. negotiator of the New Strategic Arms Reduction Treaty (New START) with the Russian Federation,¹⁸ told me:

I know he [Obama] came to this issue having thought about it before... He was quite knowledgeable from his studies in university going forward... but when he got into the Senate, he became engaged, and he was really gripped by the issues. (Interview: 12 September 2023)

An example of Barack Obama's early interest in these matters at university is in *Sundial*, a Columbia campus magazine. In the 10 March edition of 1983, Obama writes under the heading 'Breaking the War Mentality' that:

The Reagan administration's stalling at the Geneva talks on nuclear weapons has thus already caused severe tension... By being intransigent, Reagan is playing directly into the Russian's hands. ... It is... an invitation to work towards a peace that is genuine, lasting and non-nuclear. (Obama, 1983: 2-5)¹⁹

¹⁵ [A World Free of Nuclear Weapons](#) by Schultz, Perry, Kissinger and Nunn published in The Wall Street Journal 4 January, 2007

¹⁶ [Professor Steve Fetter](#), Senior Associate Fellow, RUSI

¹⁷ Rose Gottemoeller advised the Secretary of State on arms control, non-proliferation and political-military affairs. She acted in this position from 2012 to 2014 while concurrently serving as Assistant Secretary of State for the Bureau of Arms Control, Verification and Compliance (2009-2014)

¹⁸ [Rose Gottemoeller, Deputy Secretary General NATO](#) (2016-2019)

¹⁹ ['Breaking the War Mentality'](#) by Barack Obama—10 March 1983—published in *Sundial* vol 7, No 12

Few in later life, especially in public life, would wish to be reminded of words written in a student magazine. However, these themes of engagement were central to the Prague speech and were at the heart of his first overseas foreign policy speech in Berlin in 2008:

Partnership and cooperation among nations is not a choice; it is the one way, the only way, to protect our common security and advance our common humanity.²⁰

In another major foreign policy speech during his campaign for the Democratic Nomination, he gave the audience at the Chicago Council for Global Affairs (23 April 2007) a realist prescription:

America cannot meet the threats of this century alone, but the world cannot meet them without America. We must neither retreat from the world nor try to bully it into submission - we must lead the world, by deed and example.

3.2. Obama: Realist, idealist or rationalist?

Yet there is a paradox because Obama talks like an idealist but often acts as a realist. In the first chapter about the English School and establishing a *via media*, Jeffrey Goldberg²¹ wrote an in-depth (but unsympathetic) analysis for *The Atlantic* on the *Obama Doctrine*:

Obama, unlike liberal interventionists, is an admirer of the foreign-policy realism of President George H. W. Bush and, in particular, of Bush's national-security adviser, Brent Scowcroft ("I love that guy," Obama once told me)...One day, over lunch in the Oval Office dining room, I asked the president how he thought his foreign policy might be understood by historians...."I suppose you could call me a realist in believing we can't, at any given moment, relieve all the world's misery," he said. "We have to choose".²²

If Obama described himself as a realist, then he was a realist who believed in the importance of relationships. The first trip which the new Senator Obama and member of the Senate Committee on Foreign Relations was to Russia, Azerbaijan, Ukraine and the UK from 23 August 2005 to 2 September 2005²³ with Senator Dick Lugar, who was Chair of the Committee (2003-2007) and co-sponsor of the Nunn-Lugar Act. Rose Gottemoeller told me:

Senator Lugar took him [Obama] on a visit to the former Soviet Union, and particularly to Russia, and took him around to a lot of the [nuclear] facilities where Lugar was working on the Cooperative Threat Reduction Programme [Nunn-Lugar

²⁰ Barack Obama--[Address in Berlin](#) at the Victory Column in Tiergarten Park, Berlin—24 July, 2008

²¹ Jeffrey Goldberg is an American journalist who a famous article in *The New Yorker* in 2002 titled "[The Great Terror](#)" which was influential in making the case for regime change against Saddam Hussein in Iraq because of genocide against the Kurds and links with Al-Qaeda

²² Goldberg, J., 2017. The Obama doctrine. In *The Best American magazine writing 2017* (pp. 243-302). Columbia University Press.

²³ [Press Notice: Senator Obama](#)—23 August 2005—Stanford University Archive access 18 October 2023

Act]...And that was one of the original sparks to the Prague agenda. (Interview: 12 September 2023)

Another reason for the focus on the terrorist threat--Barack Obama sets the scene for the visit:

In 2005, intelligence reports indicated extremist groups like al-Qaeda were scouring poorly guarded outposts throughout the former Soviet bloc, searching for remaining nuclear, chemical and biological materials... It was sobering, all of it, proof of people's capacity to harness ingenuity in the service of madness (2020: 61)

Again, we see here a clear focus on WMD and nuclear security, particularly in response to the terrorist threat to the United States. It is Obama's distinctive voice which comes through consistently in the policy choices reflecting a personal dimension to the political agenda.

3.3. *'Partnership' with Russia*

There was a further shift following the visit with Lugar, the approach to Russia. Obama felt the Co-operative Threat Reduction Programme and the Global Initiative to Combat Nuclear Terrorism needed to be protected and strengthened in partnership with Russia. In a speech to the Council of Foreign Relations in Washington DC on 1 November 2005, he said:

[W]e cannot allow the U.S.-Russian relationship to deteriorate to the point where Russia does not think it is in their best interest to help us finish the job we started. We must safeguard these dangerous weapons, materials, and expertise....One way we could strengthen this relationship is by thinking about the Russians as more of a partner and less of a subordinate in the Cooperative Threat Reduction effort.

²⁴

This agenda, developed during the visit to Russia in August 2005, began to shape what was known as the Lugar-Obama Disarmament Initiative. ²⁵

4. The 'Other' Agenda: *'A World Free of Nuclear Weapons'—Wall Street Journal (2007)*

The 'road to the WSJ op-ed' began when Dr George Schultz, who had served as U.S. Secretary of State under Ronald Reagan (1982-1989), was invited to co-host a

²⁴ ['Non-proliferation and Russia: The challenges ahead'](#)—Address by Senator Barack Obama to the Council on Foreign Relations, Washington, DC—1 November, 2005.

²⁵ ['Nun-Lugar Report'](#) (page 5) August 2005

conference with Sidney D. Drell²⁶ one of the world's leading theoretical physicists and an adviser to multiple U.S. administrations. The 'Reykjavik Revisited' conference was held at Stanford University's Hoover Institution in October 2006. The event marked the twentieth anniversary of the Reykjavik Summit between President Reagan and General Secretary Gorbachev (Drell and Schultz, 2013).²⁷

The MacArthur and Hewlett foundations funded the two-day conference (25-26 October 2006). It attracted forty-eight leading scholars and practitioners from the nuclear world and considered ten papers written and presented at the conference. There was, however, only one non-U.S. or U.S.-based scholar—General Vladimir Dvorkin from the Russian Academy of Sciences, Moscow²⁸ (Schultz et al. 2008: 467-472). All the papers were from Americans. That is how the U.S. sees its role. As Sverre Lodgaard puts it, “[T]he United States remains the global power number one, so regime leadership [in nuclear non-proliferation] – which no international regime can do without – is primarily up to the United States to exercise” (2010: 96)

The 1986 summit had been a seminal moment in U.S.-Soviet relations as Schultz explained “how the two leaders had come close to the deal of the century—to eliminate *all* nuclear weapons—before breaking up in disagreement over limits on Reagan’s Strategic Defence Initiative” (Hoffman, 2012: 41). According to some accounts, the conference had been particularly impacted by an address and paper presented by Max Kampelman²⁹ on reaching ‘Zero Nuclear Weapons’.³⁰

Before the Hoover conference, Shultz kept his distance from Kampelman’s idea. According to Taubman, after hearing Kampelman’s talk, Shultz suddenly declared he was in favour of abolishing all nuclear weapons, “the first time since the Reykjavik summit itself that Shultz had publicly endorsed the idea. *This moment* led to an op-ed piece published in *The Wall Street Journal* on January 4, 2007, headlined “A World Free of Nuclear Weapons.” (Hoffman, 2012: 141 *emphases added*)

²⁶ [Sidney D. Drell](#) (1926-2016) Hoover Institution

²⁷ [‘The Reykjavik Summit’](#) published by The Atomic Heritage Foundation—7 August, 2018

²⁸ This is the author’s assessment of the guest list. There were two other ‘Non-US’ participants: Dr Pavel Podvig who is Russian and now based at UNIDIR. However, his affiliation at the time is listed as Stanford University and Sérgio Duarte, the former Brazilian diplomat who served as the High Representative for Disarmament Affairs at the UN in New York.

²⁹ Ambassador Max Kampelman (1920-2013) was Chief U.S. Negotiator to the Conference on Security and Cooperation in Europe 1980–84 and head of the U.S. delegation to negotiate with the Soviet Union on Nuclear and Space Arms, 1985–89 (2007: 148)

³⁰ [‘Zero Nuclear Weapons’](#) (2007) by Max Kampelman, published by the Hoover Institution

This is important because I aim to argue that the Prague Agenda was essentially the Obama Agenda, which focused on nuclear security, rather than the Schultz, Perry, Kissinger, and Nunn Agenda, which emphasised disarmament and the eventual elimination of all nuclear weapons.

4.1. *WSJ 'fall-in'*

The *WSJ* article built momentum about 'Global Zero,' not just in the United States but worldwide,³¹ to support nuclear disarmament. One of the first supporters to endorse it was Mikhail Gorbachev, who wrote an opinion piece in the *WSJ* on 31 January 2007 under the heading 'The Nuclear Threat' in which he referred to the 'A World Free of Nuclear Weapons' article by saying:

As someone who signed the first treaties on real reductions in nuclear weapons, I feel it is my duty to support their call for urgent action.....We must put the goal of eliminating nuclear weapons back on the agenda, not in a distant future but as soon as possible. (January, 2007)³²

UK—'Start Worrying and Learn to Ditch the Bomb' by Douglas Hurd (UK Foreign Secretary 1989-1995); Malcolm Rifkind (Secretary of State for Defence 1992-1995; Foreign Secretary 1995-1997); David Owen (Foreign Secretary 1977-1979) and George Robertson (Secretary of State for Defence 1997-1999 and Secretary General of NATO between 1999-2003) published in *The Times* 30 June 2008. They argued:

Hard-headed Americans, such as Dr Kissinger and Mr Shultz, have argued that dramatic reductions in the number of nuclear weapons in these [U.S. and Russia] arsenals could be made without risking America's security.... The ultimate aspiration should be to have a world free of nuclear weapons...we can begin by supporting the campaign in America for a non-nuclear weapons world³³

Germany—'Toward a nuclear-free world: a German view' by Former Chancellor Helmut Schmidt (1974-1982), former German President Richard von Weizsäcker (1984-1994), former Foreign Minister Hans-Dietrich Genscher (1974-1992) and the influential SPD politician Egon Bahr published in *Frankfurter Allgemeine Zeitung* and *International Herald Tribune*, January 9, 2009. They said:

We unreservedly support Messrs. Kissinger, Schultz, Perry, and Nunn's call for a turnaround on nuclear policy, and not only in their country....The vision of a world

³¹ Some suggested that U.S. embassies and missions orchestrated this to build support in Congress by demonstrating the support of key allies, but this cannot be confirmed by public sources.

³² 'The Nuclear Threat' by Mikhail Gorbachev published 31 January 2007 in *The Wall Street Journal* (p.13)

³³ 'Start worrying and learn to ditch the bomb' letter to *The Times* by Douglas Hurd, Malcolm Rifkind, David Owen and George Robertson published 20 June 2008 and accessed from the web-site of nuclearinfo.org —25 October, 2024.

free of the nuclear threat, as developed by Ronald Reagan and Mikhail Gorbachev in Reykjavik, must be rekindled³⁴

Poland--The Unthinkable Becomes Thinkable: Towards Elimination of Nuclear Weapons By Aleksander Kwaśniewski (president 1995-2005), Tadeusz Mazowiecki (prime minister 1989-1990) and Lech Wałęsa (president 1990-1995 and Nobel Peace Prize Laureate-1983) published in *Gazeta Wyborcza* 6 April 2009 opined that:

An inspiration to discuss a world free from nuclear peril came from a statement by four U.S. statesmen, two Democrats and two Republicans. In 'A World Free of Nuclear Weapons' (Wall Street Journal, January 4, 2007)...The heaviest responsibility is shouldered by the powers that hold the largest arsenals.³⁵

Support for the 'World Free of Nuclear Weapons' agenda were expressed by Australia,³⁶ Belgium,³⁷ Canada,³⁸ France,³⁹ Italy,⁴⁰ The Netherlands,⁴¹ Norway,⁴² South Korea⁴³ and Sweden.⁴⁴ It was not all acclamation and endorsement; there were strongly argued counterviews. The Former U.S. Secretary of Defence and nuclear physicist Harold Brown (1977-1981) and former CIA Director John Deutch (1995-1996) wrote in an op-ed in the *Wall Street Journal* titled "The Nuclear Disarmament Fantasy" (19 November 2007):

³⁴ ['Toward a nuclear-free world: a German view'](#) Helmut Schmidt, Richard von Weizsäcker, Egon Bahr and Hans-Dietrich Genscher, 9 January, 2009 published in *Frankfurter Allgemeine Zeitung* and *International Herald Tribune*—IHT English version accessed from the web-site of Pugwash on 25 October, 2024

³⁵ [The Unthinkable Becomes Thinkable: Towards Elimination of Nuclear Weapons](#) - by Aleksander Kwaśniewski, Tadeusz Mazowiecki and Lech Wałęsa published 6 April 2009—English text accessed from Pugwash.org 25 October, 2024

³⁶ ['Imagine There's No Bomb.'](#) Malcolm Fraser, Gustav Nossal, Barry Jones, Peter Gration, John Sanderson and Tilman Ruff, April 8, 2009, The Age, The Sydney Morning Herald

³⁷ ['Toward a Nuclear Weapons Free World.'](#) Willy Claes, Guy Verhofstadt, Jean-Luc Dehaene and Louis Michel, February 19, 2010, *De Standaard*

³⁸ ['Toward a World Without Nuclear Weapons.'](#) Jean Chrétien, Joe Clark, Ed Broadbent and Lloyd Axworthy, March 25, 2010, *The Globe and Mail*

³⁹ ['For Global Nuclear Disarmament, the Only Means to Prevent Anarchic Proliferation.'](#) Alain Juppe, Michel Rocard, Alain Richard and Bernard Norlain, October 14, 2009, *Le Monde*

⁴⁰ ['Towards a Nuclear-Weapon-Free World.'](#) Massimo D'Alema, Gianfrance Fini, Giorgio La Malfa, Arturo Parisi and Francesco Calogero, July 24, 2008, *Il Corriere della Sera*

⁴¹ ['Toward A Nuclear Weapon Free World'](#) by Ruud Lubbers, Max van der Stoel, Hans van Mierlo and Frits Korthals Altes Published in *NRC Handelsblad*, 23 November 2009

⁴² ['A Nuclear Weapon-Free World.'](#) Odvar Nordli, Gro Harlem Brundtland, Kåre Willoch, Kjell Magne Bondevik and Thorvald Stoltenberg, June 4, 2009, *Aftenposten*

⁴³ ['A Road Map for a Nuclear Free World.'](#) Lee Hong-koo, Han Sung-joo, Park Kwan-yong and Paik Sun-yup, June 23, 2010, *JoongAng Daily*

⁴⁴ ['Swedish Declaration on the Elimination of Nuclear Weapons.'](#) Ingvar Carlsson, Hans Blix, Karin Söder and Rolf Ekeus, April 11, 2010, *DN.s*

So long as serious political differences exist between nations and peoples, and given that the possibility of nuclear weapons exists, the U.S. should have nuclear weapons...hope is not a policy..⁴⁵ Foreign policy must be based on this reality.⁴⁶

The *WSJ* article January 2007 and its follow-up in January 2008 were building a global momentum. One initiative that came out of the *WSJ* momentum was a joint Commission established by the Prime Minister of Australia—Kevin Rudd – and the Prime Minister of Japan Yasuo Fukuda. The International Commission on Nuclear Non-proliferation and Disarmament (ICNND) was to be co-chaired by former Australian foreign minister Gareth Evans and former Japanese foreign minister Yoriko Kawaguchi.⁴⁷ The ‘signature of the ‘four horsemen’ and the *WSJ* articles was evident’ (Hanson, 2012: 68).⁴⁸

5. The Promise of Prague (2007-2009)

When I spoke to Ben Rhodes, who was Barack Obama’s speech writer and adviser on foreign affairs, he told me that if I wanted to understand the Prague speech, then: “The speech that you should look at and was the origin of the Prague speech was the speech he gave in the campaign on October 2nd, 2007 [DePaul University].” He went on to explain:

The reason why I remember it is you’ll recall that the main contrast that he drew with Hillary Clinton in the Democratic primary campaign was that he had been an opponent of the Iraq war, and she supported it.... Why does this matter for the Prague speech? Because on October 2nd, 2007 he was going to give a speech on the fifth anniversary of that Iraq speech.⁴⁹ Obama is a serious person and he said, you know, I don’t want to just revisit that issue [Iraq], although I will, but I also want to add something bold in terms of my own foreign policy that is more forward-looking..(Interview: 16 October, 2023)

⁴⁵ Perhaps Harold Brown might have reflected on the [inaugural address of President Jimmy Carter](#) (a nuclear physicist who had also served on nuclear submarines) in whose administration he served as Secretary for Defense (1977-1981) when he said “*And we will move this year a step toward our ultimate goal--the elimination of all nuclear weapons from this Earth. We urge all other people to join us, for success can mean life instead of death*” 20 January, 1977

⁴⁶ Harold Brown, “[The Nuclear Disarmament Fantasy](#)” *Wall Street Journal*, 19 November, 2007

⁴⁷ The ICNND included Commissioners from Russia (Dr Alexei Arbatov); the United States (William Perry); India (Brajesh Mishra); Pakistan (Jehangir Karamat); China (Wang Yinfan); France (Francois Heisbourg) and United Kingdom (Shirley Williams)—seven of the nine nuclear-armed states. The Commission first met in Sydney (19-21 October 2008) and held an evidence session in Santiago, Beijing, New Delhi, Cairo and Moscow. It produced a list of seventy-six recommendations (2009: Annex A—page 251). ⁴⁷ These recommendations were again influential with the NPT RevCon and closely resembled the 2010 sixty-four-point⁴⁷ Action Plan agreed at the NPT RevCon in 2010.

⁴⁸ Burgess, S., Fitzpatrick, M., Hagerty, D.T., Hanson, M., Kassenova, T., Rublee, M.R. and Shire, J., 2012. *Slaying the Nuclear Dragon: Disarmament Dynamics in the Twenty-First Century* (Vol. 14). University of Georgia Press.

⁴⁹ ‘[Opposing the War in Iraq](#)’ delivered to a rally in Federal Plaza on 2 October 2002—accessed via American Rhetoric web-site 22 November 2024

Rhodes's direction of the speech 'A New Beginning' at DePaul University on 2 October 2007 was significant⁵⁰. Significant in the sense that I could have been directed to read the Wilson Center speech in DC on 1 August 2007, or the Foreign Affairs article of July 2007, or the speech to the Chicago Council on Foreign Relations on 23 April 2007—yet all of these speeches/articles focus on nuclear security not disarmament. So, were we seeing a bolder disarmament agenda emerging at DePaul? Obama told the audience:

Here's what I'll say as President: America seeks a world in which there are no nuclear weapons. We will not pursue unilateral disarmament. As long as nuclear weapons exist, we'll retain a strong nuclear deterrent. We'll work with Russia to take U.S. and Russian ballistic missiles off hair-trigger alert and to dramatically reduce the stockpiles of our nuclear weapons and material. We'll start by seeking a global ban on the production of fissile material for weapons. And we'll set a goal to expand the U.S.-Russian ban on intermediate-range missiles so that the agreement is global.⁵¹

It is a noticeable shift in the direction of the *WSJ* (2007) and away from nuclear security and it is noticeable that perhaps the *only* DePaul goal that was achieved was 'retaining [and upgrading] our nuclear deterrent'. As Mario Cuomo⁵² (1983-1994) might reflect "We campaign in poetry but must govern in prose." Ben Rhodes told me:

I am in a different place on that to Rose [Gottemoeller]. I was trying to kick the door down—that's my job as a speech writer. I'm the campaign outsider trying to shake things up. Rose's job is to say afterwards well here's what's possible tell us what can be done and what can't.my job was to use Obama's charisma as it is a unique currency to be ambitious (Interview: 16 October 2023).

5.1. *Meanwhile, on Wall Street and Main Street*

A reason why nuclear weapons did not become a focus point for the 2008 presidential campaign was first that Obama and McCain were in broad agreement on the issues⁵³ Second, the Global Financial Crisis was the dominant issue. The bankruptcy of Lehmann Brothers in September 2008 sent financial shockwaves around the world; the Federal Reserve had to step in to take over AIG (the largest insurance company in the world). In October 2008, the U.S. Senate rushed through an Emergency Economic Stabilization Act. It launched a U.S.D700 billion Troubled Asset Relief Program to try and avert the collapse of the banking system. The crisis quickly spread from Wall Street to Main Street, especially in the automotive industry. Chrysler filed for bankruptcy in April 2009, and General

⁵⁰ The DePaul speech was written by Brooke Anderson, Susan Rice and Ivo Daalder (2012: 335). Ivo Daalder of Brookings had been a long time advocate for 'Global Zero' the elimination of all nuclear weapons (1995) and 'The Logic of Zero' (2008).

⁵¹ 'A New Beginning' speech by Barack Obama at DePaul University, ILL on 2 October, 2007 published by The American Presidency Project, UCSB

⁵² Mario Cuomo was Democratic Governor of New York (1983-1994)

⁵³ 'McCain speech on nuclear security' transcript taken from C-SPAN recording—27 May 2008

Motors filed a month later (Chari and Christiano, 2008; Lybeck, 2011; Tooze, 2018; Warburton, 2009). It was a timely reminder that foreign policy aspirations will always be secondary to domestic realities, especially in an election year.

5.2. *The Prague speech takes shape.*

Gary Samore, President Obama's Co-ordinator for WMD, recalls:

[W]hen President Obama took office in January 2009, the administration already had a detailed set of policy proposals and strategy on nuclear issues....Of course campaign documents are not always (or even often) translated into policy by the victorious candidate. In this case, however, President Obama's personal interest and commitment ensured that his campaign promises became the basis for his April 2009 Prague speech (2013: 25-26).⁵⁴

This was confirmed by Jon Wolfsthal⁵⁵ who said:

[I]n 2009, when the Prague speech was made, the president had only been president for 3 months. He was very ambitious: "We're going to do this". "We had to lay out a policy": "These were the specific things we wanted to do". And at the beginning of an administration, people need a blueprint.... so, we had from the campaign the president's agenda, and we were able to pull that together in the speech (Kurokawa, 2018: 500)⁵⁶

5.3. *Great Expectations*

Gary Samore confirms that the Prague speech was "drafted by President Obama's brilliant speechwriter, Ben Rhodes, with input from State, Defense, Energy, and the Joint Chiefs, most of the policy proposals survived the transition" (Samore, 2013). Ben Rhodes gave me more details about the preparation for the speech:

Everything Obama did was big..so we knew this speech would be big. There was going to be a big crowd [20,000-30,000]. We knew the venue was iconic. We knew it was his first speech in Europe as president. But I think what he [Obama] was worried about was that he didn't want it to be too big. I think he writes about discussing with Havel expectations management (Interview 26 October 2023)

One leading specialist working closely on these issues, "It's hard to convey the optimism which was there at the time. There was genuine energy, dynamism for the disarmament movement...the reaction to the Prague speech was electric" (Interview 6 September 2003) David Kern commented, "President Obama's message resonated across much of

⁵⁴ ['Making a Difference: Creating and Implementing the Prague Agenda'](#) by Dr Gary Samore in Carnegie Reporter magazine Summer, 2013 (vol.7/no.2).

⁵⁵ special adviser to Vice President Joe Biden for nuclear security and non-proliferation and a director for non-proliferation on the National Security Council from 2009 to 2012

⁵⁶ Kurokawa, T., 2018. Determinants of the Nuclear Policy Options in the Obama Administration: An Interview with Jon Wolfsthal. *Journal for Peace and Nuclear Disarmament*, 1(2), pp.497-528.

the world and set high expectations that would be difficult for anyone to fulfil” (Kearn, 2024:182).

Václav Havel (president 1989-2003)⁵⁷ had been a role model for Barack Obama, and the chance to meet with him was a significant moment on his visit to Prague, he wrote:

Along with Nelson Mandela and a handful of other living statesmen, he'd [Havel] been a distant role model for me. I'd read his essays while in law school. Watching him maintain his moral compass...had helped convince me that it was possible to enter politics and come out with your soul intact (Obama, 2020: 350)

In Prague, the old former president offered the new current president some advice after the speech; he told Obama, in almost prophetic tones, “You’ve been cursed with people’s high expectations....Because it means they are also easily disappointed. It’s something I’m familiar with, I fear it can be a trap” (2020: 351). The words left a lasting impression on Barack Obama, and would turn out to be true in respect of how the Prague speech was interpreted rather than how it was intended.

Michael Krepon, one of the most respected campaigners for international peace and security and co-founder of the influential Stimson Center in Washington DC, wrote:

Obama, the pragmatist, didn’t edit Obama the idealist before delivering the Prague speech. It cost him. The “Prague Agenda” became the yardstick for the administration’s unfilled ambitions. It was too bold and too overt, lending a sense of greater urgency to those seeking to clip his wings (Krepon, 2021: 427).

I hesitate to question such an eminent figure, but I am not so sure. Ben Rhodes, the speechwriter of the Prague address, told me:

I wrote the speech based off conversations and guidance from him [Obama] directly,” adding, “I remember him [Obama] inserting in the speech edits like, “perhaps not in my lifetime,”⁵⁸ but he wanted to make it clear what we were trying to do was to generate a lot of momentum to push this entire arms control regime in a positive direction (Interview: 26 October 2023)

5.4 *Pyongyang seeks to derail Prague*

The evening before the Prague speech, news came in that North Korea had test-fired an ICBM—this was a sequel to the nuclear test in 2006, which many had feared.⁵⁹ Yet when it came to issuing a joint statement with the EU ‘condemning the launch,’ there was a

⁵⁷ Havel was president of Czechoslovakia (1989-1992) and of the Czech Republic (1993-2003)

⁵⁸ Prague speech, Barack Obama, relevant section, “*So today, I state clearly and with conviction America’s commitment to seek the peace and security of a world without nuclear weapons. (Applause.) I’m not naive. This goal will not be reached quickly — perhaps not in my lifetime*” 5 April 2009

⁵⁹ ‘[DPRK \(North Korea\)](#)’ Security Council Report: Update Report—published 8 April 2009 (1)

distinct Obamaesque ‘restraint’ and ‘engagement’ note to the message and a sharp contrast with the approach taken to Iran:

The United States and the European Union stand ready to work with others in welcoming into the international community a North Korea that abandons its pursuit of weapons of mass destruction...Such a North Korea could share in the prosperity and development that the remainder of northeast Asia has achieved.⁶⁰

6. The Prague speech—a comparative analysis

President Obama began his speech at 10:21AM on 5 April 2009. The text of the speech is 3142 words.⁶¹

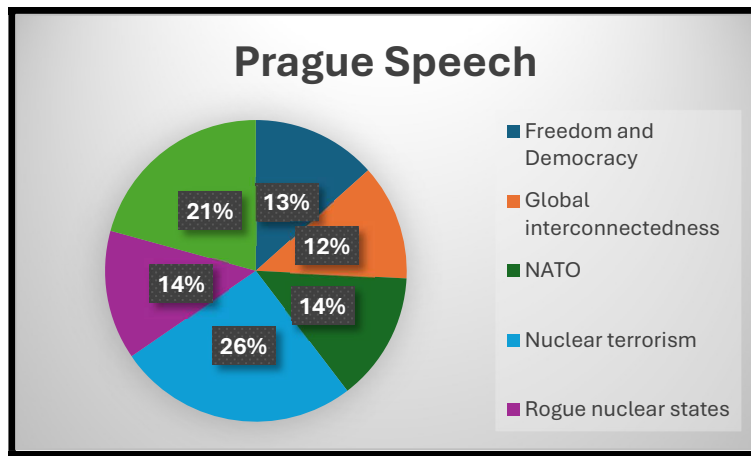


Illustration 15: The Prague Speech thematic analysis

Looking at the speech as a framework for the agenda to follow, we see eighteen proposals for action. :

Nuclear weapons (7 initiatives)	Nuclear non-proliferation (10 initiatives)	Nuclear power (1 initiative)
New START	CTBT ratification	International nuclear fuel bank
START plus	FMCT	
Reduce salience of nuclear weapons	Secure nuclear materials in four years	
North Korea international action	GICNT and PSI institution	

⁶⁰ ‘[Joint Statement by the United States and the European Council on the North Korean Launch](#)’ 5 April 2009—accessed via The America Presidency Project, UCSB—1 November 2024

⁶¹ Preliminaries (270 words); Freedom and democracy (velvet revolution) (356 words); Global interconnectedness (finance/climate change) (330 words); NATO partnership (368 words); Nuclear weapons (terrorist threat—part I) (489 words); Agenda for action on nuclear weapons (551 words); Rogue states (North Korea and Iran) (369 words); Nuclear weapons (terrorist threat—part II) (197 words); Peroration (‘Together we can do it’) (309 words)

Reconsider European missile defense	New Global Nuclear Security Summit	
Commitment to U.S. nuclear arsenal	NPT strengthened	
Ambition: <i>A world without nuclear weapons</i>	NPT/IAEA extra resources and powers	
	NSG/G7/Zangger upgrade	
	Engage with Iran	
	Expand cooperation with Russia	

6. 1. **Table 11. The Pledges of Prague**

It is worth looking back at the DePaul speech⁶² in October 2007 and seeing how many of these initiatives were referenced then, what is new, and what didn't make it through the Presidential transition. If we then apply the same approach to the original *WSJ* article in January 2007, we see an even lower level of correlation.

6.3. **Table 12. DePaul (2007) v Prague (2009)**

Nuclear weapons (7 initiatives)	Nuclear non-proliferation (10 initiatives)	Nuclear power (1 initiative)
(a) New START	(d) CTBT ratification	(l) International nuclear fuel bank
(b) START plus	(e) FMCT	
(c) Reduce the salience of nuclear weapons	(f) Secure nuclear materials in four years	Legend:
(m) International action on North Korea nuclear weapons	(g) GICNT and PSI institution	
(o) reconsider European missile defense	(h) New Global Nuclear Security Summit	RED: No Link
		Orange: Partial link
		Green: Full link
		Yellow: New pledge
(p) Commitment to U.S. nuclear arsenal	(i) NPT strengthened	
(r) Pledge 'a world without nuclear weapons'	(j) NPT/IAEA extra resources and powers	
(DePaul) De-alerting nuclear weapons	(k) NSG/G7/Zangger upgrade	
(DePaul) Global INF	(n) Engage with Iran	
(DePaul) Great power responsibility/leadership	(q) Expand cooperation with Russia	

⁶² 'A New Beginning' speech by Barack Obama at DePaul University, ILL on 2 October, 2007 published by The American Presidency Project, UCSB

6.4. Comparing WSJ v Prague

While there is some overlap between WSJ (2007) and Prague (2009), the emphasis and practical solutions proposed are very different. Just a simple comparison of word count on key topics reveals that WSJ (2007) devoted over two-thirds of its content (1 140 words out of 1535) to the arguments for the elimination of nuclear weapons. The objective of the Prague speech was not disarmament but non-proliferation and engagement with Russia—in the Prague speech, in the section covering nuclear weapons—1606 words, almost two-thirds of 1055 words were devoted to nuclear terrorism and non-proliferation.

6.5. Table 13. WSJ (2007) v Prague (2009)

Nuclear weapons (7 initiatives)	Nuclear non-proliferation (10 initiatives)	Nuclear power (1 initiative)
(a) New START	(d) CTBT ratification	(l) International nuclear fuel bank
(b) START plus	(e) FMCT	
(c) Reduce salience of nuclear weapons	(f) Secure nuclear materials in four years	
(m) North Korea international action	(g) GICNT and PSI institution	
(o) reconsider European missile defense	(h) New Global Nuclear Security Summit	RED: No Link
		Orange: Partial link
		Green: Full link
		Yellow: New pledge
(p) Commitment to U.S. nuclear arsenal	(i) NPT strengthened	
(r) Language “world free of nuclear weapons”	(j) NPT/IAEA extra resources and powers	
De-alerting/de-risking	(k) NSG/G7/Zangger upgrade	
Multilateral disarmament	(n) Engage with Iran	
Eliminating short-range missiles (INF)	(q) Expand cooperation with Russia	
Conflict resolution		

As shown in the table above, of the eighteen measures proposed in Prague (2008), only two directly match the WSJ (2007)—CTBT and FMCT and a further two where there is a partial overlap: international nuclear fuel bank and securing nuclear materials. Therefore, I argue that those who say that the WSJ (2007) was the model for the Prague Agenda are wrong based on this analysis. Another argument was that the Prague Agenda attempted to pick up on the ‘Thirteen Steps’ agreed upon at the NPT Review Conference in 2000 and then unceremoniously dropped by the Bush administration in 2005.

Examining similarities and differences, let us apply the ‘Thirteen Steps’ of NPT RevCon (2000) to Prague (2009).

6.6. Table 14. NPT (2000) v Prague (2009)

Nuclear weapons (7 initiatives)	Nuclear non-proliferation (10 initiatives)	Nuclear power (1 initiative)
(a) New START	(d) CTBT ratification	(l) International nuclear fuel bank
(b) START plus	(e) FMCT	
(c) Reduce salience of nuclear weapons	(f) Secure nuclear materials in four years	
(m) North Korea international action	(g) GICNT and PSI institution	
(o) reconsider European missile defense	(h) New Global Nuclear Security Summit	
(p) Commitment to U.S. nuclear arsenal	(i) NPT strengthened	
(r) Language “world free of nuclear weapons”	(j) NPT/IAEA extra resources and powers	<div style="border: 1px solid black; padding: 2px;"> <div style="background-color: red; color: white; padding: 2px;">RED: No Link</div> <div style="background-color: orange; padding: 2px;">Orange: Partial link</div> <div style="background-color: green; color: white; padding: 2px;">Green: Full link</div> <div style="background-color: yellow; padding: 2px;">Yellow: New pledge</div> </div>
Disarmament—regular reporting	(k) NSG/G7/Zangger upgrade	
Nuclear disarmament body (CD)	(n) Engage with Iran	
Irreversibility	(q) Expand cooperation with Russia	
Elimination of nuclear weapons	Nuclear test moratorium	
ABM ⁶³ plus	Transparency of nuclear capabilities	
Reduction of number of nuclear weapons		
De-alerting/de-risking	Removal of excess fissile material by NWS	
General and complete disarmament		
Verification		

⁶³US withdrew from the ABM Treaty (1972) in 2002, citing post 9/11 concerns about ‘rogue states’

7. The Prague 'Spring' (2009-2011)

Testing the proposition that the Prague Agenda was distinct from the Obama vision concerning nuclear weapons, I want to walk through the significant milestones in the year that followed the Prague speech from the perspective of the Obama vision. They are:

1. The Moscow Summit (6-8 July 2009)
2. Obama chaired a special session of the UNSC, New York (24 September 2009)
3. Obama's acceptance speech for Nobel Peace Prize, Oslo (10 December 2009)
4. New START signing, Prague (8 April 2010)
5. Publication of the U.S. Nuclear Posture Review Report (8 April 2010)
6. First Nuclear Security Summit, Washington DC (12-13 April 2010)
7. The NPT Review Conference, UN, New York (3-28 May 2010)
8. UNSC 1929 on Iranian sanctions (9 June 2010)
9. NATO Lisbon Summit and NATO Russia Council (20 November 2010)

7.1. The Moscow Summit

Obama's trusted adviser on Russia, Michael McFaul⁶⁴, recalls that moving into the White House in January 2009, creating colour-coded files for what he hoped to achieve in his time there in relation to Russia, they were: 'New START Treaty; Denying Iran the Bomb; Missile Defences Co-operation; Repeal the Jackson-Vanik Amendment etc.'⁶⁵ (McFaul, 2019: 120). He continued, "Presidential time is the most precious commodity in the U.S. government, so I scored a huge bureaucratic victory in getting Moscow into Obama's calendar in July 2009....we need to produce tangible outcomes. We focused on three: a proposed U.S.-Russia Bilateral Presidential Commission, a "lethal transit" agreement,⁶⁶ and a framework agreement for the new strategic arms treaty" (2019: 121). The summit was a success, primarily because of the warm personal relationship established between

⁶⁴ [Michael McFaul](#) had been a co-founder of the Carnegie Moscow office in the nineties, was a professor at Stanford and as a campaign adviser to Obama, was regarded as the '[architect of Obama's Russia policy](#)' and went on to become US ambassador to Russia (2011-2014). He had also attended the 2006 Reykjavik Revisited Conference with and endorsed the 'Towards a Nuclear Free World' WSJ position.

⁶⁵ Amendment denies normal trading relations to nonmarket economies-- '[The Jackson-Vanik Amendment and Permanent Normal Trade Relations](#)' by Congressional Research Service—20 December 2023

⁶⁶ Allowing for the transit of US military materials and weapons from Russia to Afghanistan—[White House Fact Sheet](#), 6 June 2009

Obama and Medvedev (Obama, 2020: 463). Though ominously, his relations with Putin were not nearly as positive and warm (Obama, 2020: 465).

The result of the Moscow Summit was a raft of new initiatives and agreements and progress on all of the Obama priorities: agreement on a follow-on agreement to START; a joint statement on nuclear security proposing curbs on non-proliferation.⁶⁷ There was cooperation on Afghanistan and allowing the supply route of military personnel and equipment across Russian territory, the establishment of the U.S.-Russia Bilateral Commission under the co-leadership of Obama and Medvedev, and the co-ordination of Clinton and Lavrov.⁶⁸ The focus was firmly on nuclear security and counter-terrorism, as Obama would have wanted. In the press conference following the summit, Obama said,

We resolved to reset U.S.-Russian relations to cooperate more effectively in areas of common interest. Today, after less than six months of collaboration, we've done exactly that... First, we've taken important steps forward to increase nuclear security and to stop the spread of nuclear weapons. (Obama, 2009)⁶⁹

McFaul recalls finishing the conference with beers on the terrace of their hotel overlooking the Kremlin with foreign policy adviser Denis McDonough⁷⁰ and speechwriter Ben Rhodes: “We all agreed that the Reset [with Russia] was one of the greatest successes of our young administration” (2018: 138).

7.2. Special session on UNSC (24 September 2009)

When President Obama sounded his gavel at the UNSC, calling it to order, he was making history as the first U.S. president ever to chair a meeting of the UNSC. Indeed, it was only the fifth time the UNSC had gathered at heads of state level in its history. The first business was adopting a wide-ranging resolution on nuclear security, Resolution 1887 (2009), which was unanimous. Obama was clear in his opening remarks about the purpose of the meeting: “I called for this one so that we may address at the highest level a fundamental threat to the security of all peoples and all nations: the spread and use of nuclear weapons”.⁷¹ The UNSC resolution (1887)⁷² he continued, “reflects the agenda that I outlined at Prague.”⁷³ This confirms the view that the INWO is built around non-

⁶⁷ Missile defense had been a ‘central issue’ in US-Russian arms control negotiations following the Bush administration’s unilateral decision to withdraw from the ABM Treaty in 2002 (Podvig, 2011: 44)

⁶⁸ [Fact Sheet: Bilateral Presidential Commission](#)—US Department of State—15 October, 2009

⁶⁹ [Press Conference by President Obama and President Medvedev of Russia](#)—6 July 2009—published by The White House—accessed 8 November 2024

⁷⁰ Jeffrey Goldberg said of McDonough: “Obama did not choose McDonough randomly: He is the Obama aide most averse to U.S. military intervention, and someone who, in the words of one of his colleagues, “thinks in terms of traps.” The Obama Doctrine by Jeffrey Goldberg published in *The Atlantic*—April 2016

⁷¹ [UN Official Summary S/p.v.6191](#)—24 September 2009

⁷² [S/Res/1887 \(2009\)](#)—24 September, 2009

⁷³ [UNSC Report \(S/PV.6191\)](#)—6191st meeting—24 September, 2009—page 3

proliferation and led by the U.S.. William Walker pointed out that ‘most of the ordering ideas [of the nuclear age] and most of the desire to realize those ideals has come from the United States’ (Walker, 2000: 706).

7.2.1. Table 15. UNSC 1887 (2009) v Prague (2009)

Nuclear weapons (7 initiatives)	Nuclear non-proliferation (10 initiatives)	Nuclear power (1 initiative)
(a) New START	(d) CTBT ratification	(l) International nuclear fuel bank
(b) START plus	(e) FMCT	
(c) Reduce salience of nuclear weapons	(f) Secure nuclear materials in four years	
(m) North Korea international action	(g) GICNT and PSI institution	
(o) reconsider European missile defense	(h) New Global Nuclear Security Summit	RED: No Link
		Orange: Partial link
		Green: Full link
		Yellow: New pledge
(p) Commitment to U.S. nuclear arsenal	(i) NPT strengthened	
(r) Language “world free of nuclear weapons”	(j) NPT/IAEA extra resources and powers	
Recognition of Nuclear Free Zones	(k) NSG/G7/Zangger upgrade	
Strengthening UNSC 1540 ⁷⁴	(n) Engage with Iran	
Tighten Article X regarding states right to withdraw from NPT ⁷⁵	(q) Expand cooperation with Russia	

Obama addressing the UNSC 6191:

Today, the Security Council endorsed a global effort to lock down all vulnerable nuclear materials in four years...This resolution will also help strengthen the institutions and initiatives that combat the smuggling, financing and theft of proliferation-related materials.⁷⁶

Yet, as we have seen, there is often a gap between Obama’s ‘poetry’ and the Administration’s ‘prose’. He was the nuclear ‘iron fist inside a velvet glove.’⁷⁷ The

⁷⁴ UNSC 1540 (1540) forbids the supply of chemical, biological and nuclear materials to non-state actors

⁷⁵ UNSC 1887 (17) (2009) ‘affirms that a State remains responsible under international law for violations of the NPT committed prior to its withdrawal’

⁷⁶ UNSC Report (S/PV.6191)—6191st meeting—24 September, 2009—page 2

⁷⁷ Taken from *The Monthly Review* [of books] 1815 regarding Paul, Czar of Russia (1796-1801) “Paul believed that “Russians could be kept at their duty only by an iron hand covered by a velvet glove” Louis Pierre Édouard Bignon

language may have been out of the *WSJ* (2007), but the intent was Obama's to clamp down hard on the availability of nuclear materials, especially to terrorist groups, and non-proliferation, especially to Iran, and get Russia and China on board with that agenda. The rhetoric worked and beguiled audiences at home and abroad. But not all were convinced.

7.3. Nobel Peace Prize trip (December 2009)

Barack Obama's nomination for the Nobel Peace Prize in December 2009 was a surprise. A surprise shared by Barack Obama himself—Krepon notes, "Obama's response upon hearing that he had received the high honor was expletive laden." According to some reports, the White House Chief of Staff, Rahm Emanuel, issued a "verbal lashing" to the Norwegian ambassador to the United States when news of the award was released.⁷⁸ Krepon suggests that Obama "immediately realised that he would need to deal with even more unrealistic expectations" (2021: 427).

I was also told there was a fear that the award may make it more challenging to get measures such as New START and CTBT through Congress as he would be seen as "soft on nuclear weapons, rather than being tough on nuclear security." "There was no celebration at the White House for the Nobel Prize" noted Lynn Sweet⁷⁹ (cited in Terril, 2011: 764). Later, Geir Lundestad, the former Secretary of the Norwegian Nobel Committee, recalled⁸⁰ that "His [Obama's] staff enquired whether other winners had skipped the ceremony but found this has happened only on rare occasions, such as when dissidents were held back by their governments" (Lundestad, 2019).⁸¹ In what may be seen as confirming Krepon's account. Peggy Noonan wrote in *The Wall Street Journal*:

The committee's "embarrassing" decision to award this year's Nobel Peace Prize to Barack Obama, nine accomplishment-free months into his presidency, both cheapens the award and puts "the young president in a terrible place." He was chosen for one reason: He's not George W. Bush.

This is unfair. After all, the citation of the Nobel Committee was:

Obama has as president created a new climate in international politics. Multilateral diplomacy has regained a central position, with emphasis on the role that the United Nations and other international institutions can play. Dialogue and

⁷⁸ ['Obama camp angry, embarrassed over 2009 Nobel Prize: Official'](#) by Associated Press published 15 May 2014 and accessed 4 November, 2024

⁷⁹ Lynne Sweet was the Washington DC reporter for the *Chicago Sun-Times*—the quote is from an article titled 'A Premature Honor', which is no longer available online.

⁸⁰ ['Nobel secretary regrets Obama peace prize'](#)—BBC News report dated 17 September 2015

⁸¹ Lundestad, G., 2019. *The World's Most Prestigious Prize: The Inside Story of the Nobel Peace Prize*. Oxford University Press, USA.

negotiations are preferred as instruments for resolving even the most difficult international conflicts (Norwegian Nobel Committee 2009)⁸²

Multilateralism, talking with your enemies, working through international institutions, and working and talking in a bipartisan way to tackle global problems were things which Obama had demonstrated since he first set foot in the U.S. Senate. He was now bringing that approach to the world stage, and that intent was what was being rightly recognised. This is contested (Skidmore, 2012; Krepon, 2021).⁸³ Others pointed out that nominations for the 2009 Nobel Peace Prize closed on 1 February, when Obama had only been in office for twelve days and two months before his Prague speech (Terrill, 2011: 761).

By the time it came to travelling to Oslo, some significant developments had justified the Nobel Committee's prescient decision: The Prague Speech (5 April 2009) and The Cairo Speech, 'A New Beginning'⁸⁴ (4 June, 2009); The Moscow Summit and the launch of the U.S.-Russia Bilateral Presidential Commission (6-8 July, 2009);⁸⁵ President Obama chaired a special session at the UNSC, proposed UNSC resolution 1887 (2009), and began negotiations on New START.⁸⁶ So this was far from 'nine accomplishment-free months.'

The Nobel Peace Prize acceptance speech was on 10 December 2009. Just 10 days earlier, he was at the U.S. Military Academy, West Point, announcing that he was deploying 30,000⁸⁷ more American troops and 5,000 military advisers to Afghanistan.⁸⁸ Nevertheless, without missing a step, he was in front of the Norwegian Nobel Committee in the ornate setting of Oslo City Hall, declaring he was mindful:

of what Martin Luther King Jr. said in this same ceremony years ago: "Violence never brings permanent peace. It solves no social problem: it merely creates new and more complicated ones." As someone who stands here as a direct consequence of Dr King's life work, I am living testimony to the moral force of non-violence.

⁸²[The Norwegian Nobel Committee Press Release—Barack Obama](#)—Oslo, 9 October 2009

⁸³ Skidmore, D., 2012. The Obama Presidency and US Foreign Policy: Where is the Multilateralism? *International Studies Perspectives*, 13(1), pp.43-64.

⁸⁴ ['The President's Speech in Cairo: A new beginning'](#) 4 June 2009 published on The White House—President Barack Obama

⁸⁵ ['Fact sheet: Moscow Summit'](#), July 6-8, 2009, published on The American Presidency Project, UCSB website accessed 4 November 2024

⁸⁶ [Security Council calls for world free of nuclear weapons during historic summit](#) published by UNODA 24 September 2009

⁸⁷ Congressional Research Service—[Troop levels in Iraq and Aghan wars](#)—by Amy Belasco—2 July 2009

⁸⁸ When President Obama took office in January 2009, there were 60,065 US military personnel in Afghanistan. One year later, there would be 100,205.⁸⁸ The first year's 'troop surge' cost alone would be USD \$30 billion. By contrast, the combined budget of the Nunn-Lugar Cooperative Threat Reduction Programme between 1991 and 2012 was just over USD \$10 billion.⁸⁸

When you are as gifted, eloquent, credible, and intelligent as Barack Obama, there is a danger that you will start believing in poetry rather than prose. Greg Craig who oversaw delivering on Obama's Guantanamo pledge⁸⁹ said of his style, "I thought of it as Obama's 'Field of Dreams' approach: 'If I say it, they will come.'⁹⁰

7.4. New START and Old Realities

According to Rose Gottemoeller, Chief U.S. Negotiator for New START, following the announcement of negotiations with Russia for a New START treaty, things moved very fast: "The key early message for me in setting the negotiating table was that President Obama was watching, would continue to pay attention, and wanted the negotiation done in time for when the START treaty went out of force in December 2009' (2021:18). The first milestone was the Moscow Summit (6 July 2009). President Obama and President Medvedev issued a 'Joint Understanding on the START follow-on Treaty' designed to speed up the negotiating process.⁹¹

Perhaps the more significant challenge to the New START negotiations was keeping your side on side. For Medvedev, that meant keeping Putin onside. Gottemoeller recalled that as a critical member in the negotiations in December 2009, the Russian negotiating team had gone back to Moscow to brief the National Security Council on progress, "Putin simply draws lines through all the items on the decision sheet and said, "Нет, Нет,Нет!" (No, no, no!).⁹² On the U.S. side, it was the Senate National Security Working Group that started to express concerns about the negotiations—Senator Kyl (R-Ariz), 1995-2013). Gottemoeller recalls:

The visit of the National Security Working Group [of the Senate] was an important watershed for the delegation. We went from being concerned only about dealing with the Russians to focussing on what would be needed for the ratification debate (2021: 65).

The Senate's concerns also unnerved the Russians, who feared the compromise would be meaningless as the U.S. would not be able to deliver Senate support. McFaul recalls,

In conversations with the president on our ratification strategy, I could tell Obama was sceptical. Our approach was too rational. It left out politics. "Kyl's never going

⁸⁹ Obama announced he was going to 'send a new plan to Congress' to close Guantánamo Bay "once and for all."⁸⁹ This plan failed to convince Congress, and so at the end of President Obama's term of office, there were still 41 detainees at Gitmo.

⁹⁰ 'Why Obama has failed to close Guantanamo' by Connie Bruck, 23 July, 2016

⁹¹ [Joint Understanding by President Barack Obama and President Dmitry Medvedev on the START follow-on Treaty](#)—6 July, 2009

⁹² [The Doorstep—Negotiating New START with Rose Gottemoeller](#)—Carnegie Council—19 October 2021

to back me on anything,” I remember Obama saying during one conversation in the Oval Office. (McFaul, 2018: 154).

It was a timely reminder that even a popular president and Nobel Laureate elected on a mantra of ‘Yes, we can!’ can still be held at the mercy of a relatively little-known U.S. Senator determined to keep saying, ‘No, you can’t!’ Such democratic subtleties would be lost on negotiators in Moscow, Beijing, Pyongyang, and Tehran.

Ultimately, the approval process through Congress took six months, involving 22 Senate Hearings and over 1000 questions for the record (Pifer, 2015: 109). Even then, President Obama, or to be more precise, the American taxpayer, would need to sign off on the most extensive nuclear modernisation in history—the upgrade would cost \$2 trillion over thirty years⁹³ between 2017 and 2046. To put this number in context, it is twice the current U.S. annual defence budget (U.S.D 849.8 billion, FY 2025) but less than the estimated \$6.4 trillion cost of the post-9/11 wars.⁹⁴ Barack Obama reflected on his frustration in his memoir:

Closing the deal [New START] required me to commit to a multiyear, multi-billion dollar modernisation of the infrastructure around the United States’ nuclear stockpile, at the insistence of conservative Arizona Senator John Kyl. Given my long-term goal of eliminating nuclear weapons, not to mention all the better ways I could think of to use billions of federal dollars, the concession felt like a devil’s bargain (2020: 608)⁹⁵

7.5. Nuclear Posture Review (or Nuclear Public Relations?)

The President then focused on the upcoming Nuclear Posture Review (NPR). This periodic review of nuclear weapons strategy for the next five to ten years--his (assumed two-term) presidency. Combined with the 2010 Quadrennial Defense Review⁹⁶ and the 2010 Ballistic Missile Defense Review⁹⁷ The NPR informs the federal budgets for 2011 and 2012 and foreign policy strategy.⁹⁸

⁹³ [Congressional Budget Office Report](#)—Nuclear Arsenal—Analysis by Kingston Reif—December 2017

⁹⁴ Crawford, N. 2019. [United States Budgetary Costs and Obligations of Post-9/11 Wars through FY2020: \\$6.4 Trillion](#) Watson Institute, 13 November, 2019 [President’s Fiscal Year 2025 Defense Budget](#)—US Department of Defense—11 March, 2024

⁹⁵ For further analysis of the US nuclear security budget in 2009, see [Nuclear Security Spending: Assessing Costs-Examining Priorities](#) by Stephen Schwartz and Deepti Choubey, published by Carnegie Endowment for International Peace—12 January, 2009

⁹⁶ US Department of Defense—[2010 Quadrennial Defense Review Report](#)—February, 2010

⁹⁷ US Department of Defense—[2010 Ballistic Missile Defense Review Report](#)—January, 2010

⁹⁸ Norris, R.S. and Kristensen, H.M., 2010. US nuclear forces, 2010. *Bulletin of the Atomic Scientists*, 66(3), pp.57-71.

Another process that impacted the NPR preparations was the Congressional Commission on the Strategic Posture of the United States. The twelve-member Commission of Experts was co-chaired by William Perry (Secretary for Defense, 1994-1997) and James Schlesinger (Secretary for Defense, 1973-1975). Established in June 2008, it finally reported in May 2009—three weeks after Prague and seemed to puncture the euphoria it created. *The Wall Street Journal* said of the Commission’s report, “We’re a long way from a nuclear-free world..the Commission’s recommendations provide a welcome dose of nuclear realism. The Administration and Congress ignore them at the nation’s peril.”⁹⁹

The process for the preparation of the NPR was a concern for some members of the Obama team as it could dilute the ‘transformational agenda’ set out in Prague. For this reason, it was reported that ‘The White House instructed the Pentagon to present the President with options that reflect the transformational agenda laid out in Prague’ (Reif, 2010)¹⁰⁰ This was confirmed to me in an interview when Professor Steve Fetter told me:

When the NPR was just getting started it was very useful to have this clear presidential statement about goals and ambitions [the Prague speech], so I could say this is what the president wants us to do (Interview: 21 September 2023)

The opening line of the report's Executive Summary confirms the message got through: “In his April 2009 speech in Prague, President Obama highlighted 21st century nuclear dangers....” (iii, 2010)¹⁰¹ The five objectives of the U.S. Nuclear Posture are listed as:

1. Preventing nuclear proliferation and nuclear terrorism.
2. Reducing the role of U.S. nuclear weapons in U.S. national security strategy.
3. Maintaining strategic deterrence and stability at reduced nuclear force levels.
4. Strengthening regional deterrence and reassuring U.S. allies and partners, and
5. Sustaining a safe, secure, and effective nuclear arsenal.

And just in case people had been reading too much Schultz *et al* and too little Obama, the NPR spelt it out again—for the first time, non-proliferation and nuclear security (therefore not disarmament or deterrence) would be its top priority:

As President Obama has made clear, today’s most immediate and extreme danger is nuclear terrorism. Al-Qaeda and their extremist allies are seeking nuclear weapons. We must assume they would use such weapons if they managed to obtain them (iv, 2010).

⁹⁹ [America’s Strategic Posture](#) published by the United States Institute for Peace (USIP), 1 May 2009

¹⁰⁰ [Fact Sheet: 2010 Nuclear Posture Review](#) by Kingston Reif published by the Center for Arms Control and Non-proliferation—24 February 2010

¹⁰¹ Gates, R.M., 2010. [Nuclear Posture Review Report](#). Published by Department of Defense (6 April 2010).

It has been suggested that Obama was heavily involved in editing¹⁰² the final NPR leading Stephen Walt¹⁰³ to question whether the NPR was a Nuclear Posture Review or a ‘Nuclear Public Relations’ document.¹⁰⁴

The Prague speech would remain just ‘nice words’ had it not been converted into policy in the Nuclear Posture Review of 2010. The inclusion in the NPR gave it a ‘hard-edge’. Of the eighteen goals/initiatives of the Prague speech, thirteen of them are fully addressed in the NPR 2010, and five, by strict measure, are partially addressed.

For the Obama administration they will have been pleased to see nuclear security and terrorism as the lead priority, for the defence establishment would note the pledge that ‘the United States will not develop any new nuclear weapons’ (NPR, 2010: 39).¹⁰⁵ Iran would read it as expecting coordinated and sustained diplomatic pressure with the thinly veiled threat of retaining a ‘first nuclear strike’ against Iran even though it is a non-nuclear

7.5.1. Table 16. *Prague v Nuclear Posture Review*

Prague Agenda 2009	Nuclear Posture Review 2010
(a) New START	New START informed by NPR
(b) New START plus	U.S. will pursue further negotiations for deeper reductions
(c) Reduce the salience of nuclear weapons	U.S. will reduce the role of nuclear weapons
(d) North Korea and Iran international action and engagement	Strengthen NPT to reverse North Korea and Iran nuclear ambition, and engage--multilaterally
(e) reconsider European missile defense	Avoid limitations on missile defense in New START and establish a new strategic dialogue with Russia.
(f) Commitment to U.S. nuclear arsenal	Committed to an effective nuclear weapons stockpile
(g) CTBT ratification	CTBT ratification
(h) FMCT	FMCT negotiations
(i) Secure nuclear materials in four years	‘Efforts’ to secure nuclear materials in four years

¹⁰² Hoagland, Jim. (2010) *The Beginning of a Nuclear Spring*, Wash. Post, Apr. 18, 2010, at A15 ("President Obama was making editing changes in the Nuclear Posture Review right up to the last minutes before it was to go to press," says William J. Perry for U.S. Defense Secretary—cited in Moxley, 2011 p. 744.

¹⁰³ Stephen M. Walt is professor of international relations at Harvard University.

¹⁰⁴ ‘[Nuclear Posture Review \(or Nuclear Public Relations\)?](#)’ by Stephen Walt—Foreign Policy Magazine—6 April 2010

¹⁰⁵ Kimball, D.G. and Thielmann, G., 2010. *Obama's NPR: Transitional, Not Transformational*. *Arms Control Today*, 40(4), p.19.

(j) GICNT and PSI to be durable institutions	Committed to GICNT and PSI as durable institutions
(k) New Global Nuclear Security Summit	Hosting Nuclear Security Summit
(l) NPT strengthened	Strengthen NPT plus 'negative security assurance' ¹⁰⁶
(m) NPT/IAEA extra resources and powers	Additional resources for IAEA (no new powers listed)
(n) International nuclear fuel bank	Fuel banks should be part of Global Energy Partnership ¹⁰⁷
(o) seek the peace and security of a world without nuclear weapons	Long-term goal of world without nuclear weapons
(p) NSG/G7/Zangger upgrade	Impeding nuclear trade but NSG/G7/Zangger not mentioned
(q) Expand cooperation with Russia	Broaden cooperation with Russia (and China)

member of the NPT. The world reading the NPR would have been pleased to see the explicit reference to the goal of *a world free of nuclear weapons* is repeated ten times.¹⁰⁸

7.5.2. Table 17. Keywords analysis of the NPR 2010

Word/phrase	Mentions	Word/phrase	Mentions
Security	156	IAEA	8
Proliferation	91	United Nations	6
Russia	88	Prague	6
Terrorism	40	Iran	4
China	37	North Korea	4
NPT	25	Kazakhstan	1
NATO	20	UK	0
Disarmament	13	France	0
<i>World free of nuclear weapons</i>	10	Schultz, Kissinger, Nunn and Perry	0

Aiden Warren noted the key achievement of the NPR, “The NPR of 2010 elevated non-proliferation to the same level in U.S. nuclear policy as the nuclear weapons posture” (Warren, 2013: 48) and that was precisely what the Obama ‘Agenda’ had sought. The

¹⁰⁶ The NPR measures to strengthen the NPT include a stronger commitment/ negative security assurance that the US will not use nuclear weapons against any member state of the NPT which is in ‘compliance’ with its NPT obligations (viii, NPR, 2010).

¹⁰⁷ See: [NTI Fact Sheet: IAEA LEU Bank](#)—8 August, 2017

¹⁰⁸ For further analysis of international responses to the 2010 NPR, see: Sagan, S.D. and Vaynman, J., 2011. Conclusion: Lessons learned from the 2010 nuclear posture review. *Non-proliferation Review*, 18(1)

NPR 2010 could perhaps be summed up in five words: security, non-proliferation, terrorism, Russia and China.¹⁰⁹

7.6. The Nuclear Security Summits

By Spring 2010, the Obama phenomena around nuclear security was gathering a head of steam: the Prague speech, the Moscow Summit, the P5 process, the UNSC 1887, the Nobel Peace Prize, the Prague signing of New START, and the NPR 2010 were creating an unstoppable force. Against this backdrop, in April 2010, a new START was signed in Prague. The NPR 2010 was published before the first Nuclear Security Summit on 12-13 April. There was even time to host a premier for the documentary 'Nuclear Tipping Point' (2010) in the White House Family Theater attended by the 'four horsemen' Schultz, Kissinger, Perry and Nunn.¹¹⁰

Obama had transformed attitudes towards the United States around the world in his first year in office. have been polling for net favourability ratings for the United States for decades through their *Global Attitudes Project*¹¹¹ picked up on this trend in attitudes of twenty-four nations polled on whether the U.S. president 'will do the right thing in world affairs'. The changes were extraordinary—a sample follows:

7.6.1. Table 18. Changes in Net Favourability ratings for the U.S.

% confidence 'Will do the right thing in world affairs' (Pew Foundation—July, 2009)			
Country	Bush % (2008)	Obama % (2009)	+/- %
Germany	14	93	+79
France	13	91	+78
Britain	16	86	+70
Canada	28	88	+60
Japan	25	85	+60
Brazil	17	76	+59
Nigeria	55	88	+33
China	30	62	+32
Turkey	2	33	+31
Egypt	11	42	+31
India	55	77	+22
Russia	22	37	+15
Pakistan	7	13	+6
Israel	57	56	-1

¹⁰⁹ For a good assessment of the progress towards implementing the goals of the NPR see: [Assessing implementation of the 2010 Nuclear Posture Review](#) by Kevin Kallmyer for the CSIS—June 2011

¹¹⁰ NTI: ['White House Hosts Screening of Nuclear Tipping Point'](#)—5 April 2010

¹¹¹ The Pew Global Attitudes Project—[Confidence in Obama lifts U.S. image around the world](#)—published 23 July, 2009

This was the backdrop to the NSS. The location for the NSS was the vast Walter E. Washington Convention Center off Mount Vernon Square in Washington DC. The U.S. State Department introduction set the tone:

World leaders from 47 countries and three international organizations participated in the first Nuclear Security Summit, held in Washington April 12-13, 2010. Through the Summit, President Obama brought high-level attention to the global threat posed by nuclear terrorism and advanced a common approach to strengthening nuclear security.¹¹²

Gary Samore, Obama's White House WMD co-ordinator/'czar', told me:

I think he [Obama] had a personal interest in nuclear security, and in particular the threat of terrorist groups getting access to nuclear material or nuclear weapons. That was really the driving force behind a lot of the Prague agenda. And probably biggest single innovation was the idea of these Nuclear Security Summits (Interview: 4 October 2023)

Steve Fetter, who was in the Obama White House Office of Science and Technology, told me that nuclear security "had always been a low-level issue, but Obama elevated it" (Interview: 21 September 2023).

It was the largest gathering of world leaders in Washington DC at one time (Krepon, 2021: 438).¹¹³ They were drawn to the 'Court of Obama' and the prospect of a bilateral with the new president in the White House. Those granted the 'golden ticket' are worth noting as they give some indication of the priorities for the Obama administration in the area of nuclear security at the time: Ukraine, Kazakhstan, Armenia, Georgia, India, Pakistan, South Africa, Nigeria, Turkey, Jordan, Abu Dhabi, Malaysia, Netherlands, Germany, Chile, Argentina, Mexico and Canada.¹¹⁴

It was a formidable gathering not only for the INWO but also for the global order. It was evidence of the theme of this thesis that when the U.S. leads and manages its relations

¹¹² US State Department: Archived material—[Washington Nuclear Security Summit 2010](#)—accessed 13 November, 2024

¹¹³ The guest list was testament to this 'elevation' and also the personal convening power of Barack Obama and the United States: Dimitry Medvedev Russian president; Hu Jintao, President of the PR China; Dr Manmohan Singh, prime minister of India; Angela Merkel, Chancellor of Germany; Nicholas Sarkozy, president of France; Jacob Zuma, president of South Africa; Syed Yusuf Raza Gilani, prime minister of Pakistan; Lula da Silva, president of Brazil; Yukio Hatoyama, prime minister of Japan. Of the 46 countries represented 38 were at Head of State level (Davenport and Parker, 2019: 321).¹¹³ Only two nuclear armed states were not represented at Head of State level—Israel, Deputy Prime Minister Dan Meridor¹¹³ and the United Kingdom, Foreign Secretary, David Miliband.¹¹³ Also attending were: Ban Ki moon, Secretary General of the UN; Yukiya Amano, Director General of the IAEA and Herman Van Rompuy, President of the European Council. Iran and North Korea were purposely not invited to attend (Krepon, 2021: 437).

¹¹⁴ [Official statements published by the White House \(11-13 April, 2010\)](#) published on the American Presidency Project of UCSB—accessed 18 November 2024

with the other great powers, great things can be achieved in the INWO as well as the incredible convening power of The White House in world affairs. In words which would have warmed the hearts of Alfred Zimmern (1936), Hedley Bull (1980) William Walker (2010), and Nick Wheeler (2019) in his concluding remarks to the Summit, Barack Obama said:

When the United States fulfils our responsibilities as a nuclear power committed to the NPT, we strengthen our global efforts to ensure that other nations fulfil their responsibilities.¹¹⁵

Here, the U.S. performed its 'special duties' (Bull, 1980: 446) and saw its standing and legitimacy rise as a result. Thomas Countryman¹¹⁶ was Assistant Secretary of State for International Security and Non-proliferation (2011-2017). He told me that one of the keys to the success of the Nuclear Security Summit, 2010 was:

To say we have one topic [nuclear security] and we have only 40 or 45 countries participating was instantly...a formula for doing some productive, focused discussion and decisions...It's absolutely the right thing to do in the nuclear field (Interview: 8 September 2023)

7.6.2. 'House Gifts'

The fact that the U.S. was bypassing established institutions of the INWO such as NPT, IAEA and CD meant they could innovate.¹¹⁷ One innovation was 'house gifts.' The term 'House gifts' means that rather than attending the conference and negotiating commitments, states are expected to arrive with 'pre-cooked' contributions of what they intend to commit to. Steve Fetter told me that Laura Holgate proposed the idea.¹¹⁸ Some have quipped that it was a replication of the Chinese tribute system. William Tobey wrote:

the approach [of the house gifts] yields relatively rapid results, without the pitfalls of the least-common-denominator diplomacy that too often besets large group of countries attempting to negotiate treaties or international standards (2016: 99)¹¹⁹

The "house gifts" idea was not the original ambition for the NSS. Obama hoped they could lead to a new international treaty, though Gary Samore (WMD czar) told me:

¹¹⁵ "[An enormously productive day](#)" White House blog by Jesse Lee—13 April, 2010

¹¹⁶ Acting Under Secretary of State for Arms Control and International Security in the State Department

¹¹⁷ "[An opportunity—not simple to talk, but to act](#)" White House blog by Jesse Lee, 13 April, 2010

¹¹⁸ Laura Holgate was special assistant to the president and the senior director for WMD (Gary Samore) on the National Security Council and was later appointed as US ambassador to the UN organizations in Vienna 2016-2017 and again in 2022-

¹¹⁹ Tobey, W., 2016. Peering down from the Summit: The Path to Nuclear Security 2010–2016 and beyond. *Global Summitry*, 2(2), pp.93-113.

I remember explaining to Obama that there simply wasn't enough support in the international community for anything that would be an enforceable treaty system for nuclear security...and so we did what we could within basically voluntary arrangements (Interview: 4 October 2023).

This splitting of the issues in which disarmament would be dealt with bilaterally with the Russians and, if possible, with the Chinese and the nuclear security agenda was intentional. As Rose Gottemoeller told me:

There was a bifurcation through the Nuclear Security Summits of moving from a disarmament agenda to a security agenda: The NSS was not seen as part of the disarmament agenda; they were seen as contributing to the security of fissile material, keeping it out of the hands of terrorists and malign state actors (Interview: 12 September 2023)

This was confirmed by Gary Samore, who told me:

The only way we could make the nuclear security summits work was to say that it's not about arms control and disarmament because if we had tried to drag those issues into the agenda, it would have been very difficult to get countries like Pakistan or Israel to attend the summits (Interview: 4 October 2023)

It is often the claim that in summits and meetings, 'when all is said and done, there was a lot more said than done', but the innovative format of the Nuclear Security Summit in 2010 and the personal authority of Barack Obama, meant that such a charge could not be levelled against the NSS in Washington, 2010, nor probably the second NSS in Seoul in 2012. The results of the NSS 2010 were impressive: ¹²⁰the final tally of actions was 935 'house gifts'¹²¹ and 39 'gift baskets' ('house gifts' are national initiatives, 'gift baskets' are multilateral).¹²² Seventeen more countries agreed to remove, dispose of, or minimise their stocks of highly enriched uranium (HEU).¹²³ The Obama administration

¹²⁰ Thirty-two countries made seventy commitments under the 'house gifts' scheme¹²⁰; Strengthening co-ordination around eleven current nuclear security initiatives set out in the NSS Work Plan: US and Russia sign new Plutonium Disposal Protocol; the US-Argentina Megaports Agreement; Four new states have joined the GICNT; Thirteen new countries have ratified the amended Convention on Physical Protection of Nuclear Materials; Twelve new countries have ratified the International Convention on Suppression of Acts of Nuclear Terrorism; The UNSCR 1540 Committee's mandate was extended, and the pledged US contribution of \$3m to support its activities; Almost 400 kg of HEU (Highly Enriched Uranium) was removed from 10 countries for safe elimination and The establishment of a number of new nuclear security 'Centers of Excellence' in China, India, Pakistan, Japan and South Korea (Krepon, 2021: 438).

¹²¹ Kutchesfahani, Sara Z., Kelsey Davenport, and Erin Connolly. "[The Nuclear Security Summits: An Overview of State Actions to Curb Nuclear Terrorism 2010-2016.](#)" *An Arms Control Association and Fissile Materials Working Group Report.*

¹²² White House [Fact Sheet: Nuclear Security Summits: Securing the World from Nuclear Terrorism](#) published 29 March 2016

¹²³ Some pointed to the fact that the discussions and agreements regarding the NSS were limited to civilian nuclear material, which makes up only 17% of the total, and did not address the 87% of military weapons nuclear material (Browne et al., 2015) and Cann, M., Davenport, K. and Parker, J., 2016. [Nuclear](#)

regarded the innovation of the NSS as one of the key achievements of the Prague Agenda alongside New START (2010) and JCPOA (2015).

7.7. NPT Review Conference 2010

In his review of the NPT Review Conference 2010 titled, 'Breathing space, but no breakthrough,' Harald Müller set the scene:

The mood was 'cautiously optimistic'...The new U.S.–Russian disarmament treaties on strategic nuclear weapons (NSTART) and disposal of weapon plutonium contributed to raising optimistic expectations. President Barack Obama's commitment to a nuclear weapons free world had impressed many people. On the negative side, the crisis over Iran's nuclear program weighed heavily (2010: 5).¹²⁴

The purpose of this analysis is not to examine the NPT Review Conference as a whole, which has been done effectively by others (Johnson, 2010; Dhanapala, 2010; Ruzicka, 2010; Müller, 2010; Kerr, 2010; Miller, 2010; Lantis, 2011). But, to trace through the threads of the Prague speech and the Obama agenda.¹²⁵ Mlada Bukovansky writes that at the 2010 NPT, Obama was trying to “restore the consensus over the allocation and acceptance of special responsibilities in the nuclear non-proliferation regime” (2012: 82).

The NPT Review Conference commenced on 3 May 2010 at UNHQ, New York, under the chairmanship of Mr. Libran Cabactulan (Philippines).¹²⁶ The gathering comprised 172 signatory states to the NPT out of 190 state parties (plus Palestine as an observer) and 121 NGOs. It was less than a month after the U.S. and Russia signed the New START treaty and almost three weeks since the publication of the U.S. NPR and the first NSS in Washington, DC. It was not to be an easy NPT. Given their exclusion from NSS, Iran had hosted their summit—*Nuclear Energy for All. Nuclear weapons for no one* in Tehran (17-18 April 2010), which officials and experts from sixty countries had attended.¹²⁷ Iran had a very influential ally in Egypt. Müller points out:

The status of Israel as an undeclared nuclear weapon state was an additional burden for the conference. Egypt, whose 1981 accession to the NPT was partially

[Security Summits: Accomplishments of the Process](#), published by Arms Control Association/Partnership for Global Security Support—March, 2016.

¹²⁴ Müller, H., 2010. The 2010 NPT Review Conference: some breathing space gained, but no breakthrough. *The International Spectator*, 45 (3), pp.5-18.

¹²⁵ [Statement of President Barack Obama on the Nuclear Non-Proliferation Treaty Review Conference](#)—The White House, 3 May 2010

¹²⁶ It is a point of passing interest that only **one** of the panel of twenty-one chairs, vice chairs and thirty-four vice presidents at the NPT RevCon **elected** were from a NWS or non-NPT NWS. The one being China as a vice president. Perhaps reflecting the views of the majority of NNWS.

¹²⁷ [Iran to open nuclear summit](#) published by Aljazeera—17 April 2010

motivated by the expectation that Israel would soon follow under American pressure, has been disappointed by the course of history (2010: 6)

Egypt played a key role in 2010, as Ambassador Maged Abdel Aziz also spoke on behalf of the Non-Aligned Movement (NAM).¹²⁸ This provided Egypt with significant extra speaking time and negotiating status on behalf of the NAM. However, it was also simultaneously co-ordinator at the NPT for the New Agenda Coalition.¹²⁹ Müller stated, “Egypt was the star and winner of the 2010 NPT Review Conference” (2011: 224). It set out its stall that it was not going to agree to anything less than tangible progress on securing Israel’s attendance at a Middle East Nuclear Free Zone meeting. Under pressure from the NAM via Egypt Iran did not stand in the way of the final agreement. The compromise removed any reference to Iran or Israel in the final communique. However, the NPT had been a bruising battle. It is not difficult to detect the frustration from President Obama’s statement after the conference:

We strongly oppose efforts to single out Israel and will oppose actions that jeopardize Israel’s national security. The greatest threat to proliferation in the Middle East, and to the NPT, is Iran’s failure to live up to its NPT obligations.¹³⁰

The NPT proposed a conference on the Middle East WMD Free Zone in 2012, which did not occur.¹³¹ Comparing the 64-point action plan with the Prague Agenda, there was a direct overlap between Prague and the NPT RevCon (2010) concerning five Prague Agenda items and a partial overlap with a further nine Prague items. There was no reference to four of the 17 Prague agenda items in the 64-point action plan of the NPT RevCon. Of the 64 agreed actions of the NPT RevCon (2010), there was a full or partial overlap with 29 actions concerning the Prague Agenda. A significant objective of Obama was to get Iran back to the negotiating table on the P5+1 talks. Obama recalls:

Having been rebuffed in our attempts to open a dialogue with Iran, and with the country spiralling into chaos¹³² ...we shifted to mobilizing the international

¹²⁸ A group of 120 member states formed in 1961 by those unwilling to align with either the United States or Soviet Union during the Cold War.

¹²⁹ The New Agenda Coalition was formed by eight countries in 1998, seeking to mediate between NWS and NNWS in the context of the NPT—in 2010, it comprised six members: Brazil, Egypt, Ireland, New Zealand, Mexico and South Africa

¹³⁰ [President Obama’s Statement on the NPT Review Conference](#)—28 May 2010—US Mission to the International Organizations in Geneva

¹³¹ Lewis, P.M., 2013. The Middle East free of nuclear weapons: possible, probable or pipe-dream? *International Affairs*, 89(2), pp.433-450.

¹³² In June 2009, the Iranian opposition accused government officials of rigging the election in favour of Mahmood Ahmadinejad, sparking millions of protesters to take to the streets in what became known as the ‘Green Movement’.

community to apply tough, multilateral economic sanctions that might force Iran to the negotiating table (2020: 454-456).

7.7.1. Table 19. *Prague v NPT RevCon (2010)*

Nuclear weapons (18 initiatives)	NPT RevCon (2010) (64 Actions) relevant Action
(a) New START	Action 4
(b) START plus	Action 4
(c) Reduce the salience of nuclear weapons	Action 5
(m) North Korea international action	Action 23
(o) reconsider European missile defence	No reference
(p) Commitment to U.S. nuclear arsenal	Action 3
(i) <i>Ambition: A world without nuclear weapons</i>	Action 1
(d) CTBT ratification	Action 10
(e) FMCT	Action 15
(f) Secure nuclear materials in four years	Action 40
(g) GICNT and PSI sustainable institutions	Action 44
(h) New Global Nuclear Security Summit	No reference
(i) NPT strengthened	No reference
(j) NPT/IAEA extra resources and powers	Action 33
(k) NSG/G7/Zangger upgrade	Action 35
(n) Engage with Iran	Action 23
(q) Expand cooperation with Russia	Action 4
(l) International nuclear fuel bank	Action 58

7.8. UNSC 1929—*Iran—‘more sticks than carrots’*

Those sanctions came in the form of UNSC 1929. Michael McFaul picks up the story:

A lot of diplomatic manoeuvring took place between Prague [April 2010—New START signing] and the vote to adopt UN Security Council Resolution 1929 on 9 June 2010. Clinton pushed Lavrov. Jones called Prikhodko. And our ambassador at the United Nations, Susan Rice, did the heavy lifting....she seemed to be charming, cajoling, pressing her Russian counterpart, Vitaly Churkin, daily. Eventually, Russia voted in favour of the most robust set of sanctions ever implemented by the UN Security Council against Iran (2019: 171)

Again, we see how critical the relationship with Russia was in supporting U.S. objectives about Iran. It had been carefully cultivated over time and for a purpose. As McFaul recounts, “improved relations with Russia were not the *goal* of the reset. Rather deeper

engagement was defined to achieve American security and economic objectives” (2019: 90). For example, McFaul recalls a meeting between Obama and Medvedev and Lavrov at the Waldorf Astoria Hotel, New York in the margins of the special UNSC meeting (23 September 2009), “Obama informed Medvedev about Iran’s construction of a second-nuclear enrichment facility near the holy city of Qom. Obama was sharing intelligence with Medvedev for the first time.... As we hoped, Medvedev felt like their Iranian partners had deceived and disrespected the Kremlin.” (2019: 163)¹³³ Gary Samore told me:

I think that [JCPOA] was Obama's greatest achievement in the nuclear area, and the reason why that worked is because of the cooperation between the U.S. and Russia. I thought the New START Treaty and the U.S. willingness to engage in civil nuclear cooperation with Russia and to lift some of the sanctions against Russian companies. I think all of that was part of Russian willingness to go along with the UN Security Council Resolution 1929.... To me, the arms control treaty with Russia was very much part of enlisting Russia against Iran (Interview: 4 October 2023)

This is not to suggest that Russia was not getting a generous ‘*quid*’ for their ‘*pro quo*’. McFaul confirms that in exchange for Russian support on Iran, the U.S. agreed to lift U.S. sanctions on Russian arms export companies and other Russian entities; the U.S. would submit a ‘123 Agreement’ on energy cooperation between Russia and the U.S. to Congress and the U.S. would speed up support for Russia’s accession to the WTO which had been dragging on for eighteen years¹³⁴ (2019:170).¹³⁵ For these reasons Ilya Ulyanov said the ‘reset’ with the U.S. was ‘welcomed by Russia— not least because Russia saw the benefit in cooperative relations with the U.S., which could help resolve the consequences of the 2008 global financial crisis and introduce more Western capital to modernise and diversify the economy’ (Ulyanov, 2015: 2).

UNSC 1929 was a substantial personal victory for Obama.¹³⁶ It was followed by the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA). CISADA swiftly passed through Congress, with the House voting 408 to 8 in favour and the Senate 99 to 0 in favour. CIDADA was then signed into law by President Obama on 1 July 2010. This ‘popular’ measure was described as ‘Congressional red meat’ by one insider, designed to prepare the congressional ground for New START—though such approaches rarely satisfy and usually increase their appetite for more—this would happen. This would signal the long and arduous diplomatic and political road which

¹³³ In 2007, the US intelligence estimate, according to Freedman and Michaels (2019: 619), suggested that Iran had abandoned its nuclear research in 2004, fearing a US, Iraq-style attack.

¹³⁴ [Russia becomes WTO member after 18 years of talks - BBC News](#)—16 December, 2011

¹³⁵ US State Department [Fact Sheet: 123 Agreements](#)—6 December 2022

¹³⁶ UNSC 1929 was not unanimous. The resolution was voted against by Turkey and Brazil.

would lead to the JCPOA.¹³⁷ The valedictory Fact Sheet on the Prague Agenda published on 11 January 2017 points out:

After two years of strong diplomacy, the United States and our international partners achieved something that decades of animosity had not - a comprehensive, long-term deal with Iran.¹³⁸

Jon Wolfsthal reflected that Iran, not Russia, is the non-proliferation problem. Arms control had been the purpose of the Prague speech: “So, the president gave the Prague speech not just to lay out for his staff but also to change the discussion about Iran, and it was very effective” (Kurukowa, 2018: 510). Others note, “Obama viewed Iran’s nuclear program as the central proliferation challenge of his time” (Kearn, 2024: 169). Indeed, later, Lukasz Kulesa titled his assessment of the Prague Agenda, ‘Iran Talks: Saviour of President Obama’s Prague Vision?’ (2014).

7.8.1. Why Iran?

Ben Rhodes told me, “I’d say Obama’s own memory of this set of issues is probably coloured by how much it became about Iran in the proliferation space” (Interview: 16 October 2023). The JCPoA was labelled ‘Obama’s greatest foreign policy triumph’ (Parsi, 2017). I would have liked to explore further why there was such an intense focus on Iran and yet such a soft peddle on North Korea, which many viewed as the greater threat. Part of the answer could be that the U.S. had 200,000+ troops in the vicinity of Iran at the time, but this is underexplored in the literature.

7.9. Lisbon NATO Summit and NATO-Russia Council Summit.

Given the strains in U.S.-Russia relations following UNSC resolutions 1973 (Libya) and 1929 (Iran sanctions) and the public dispute between Putin and Medvedev, it was surprising that the NATO-Russia Council went ahead. Two reasons—first, the decision by the U.S. to cancel the missile defence plans for the Czech Republic and Poland and in place open discussions with NATO about joint missile defence systems for NATO and Russia and second, the other promise made by Obama—Russian WTO membership was not yet delivered. Meanwhile, NATO needed Russian support in respect of Afghanistan. Another reason was the close personal relationship that had developed between Obama

¹³⁷ Vakil, S. and Quilliam, N., 2019. Getting to a New Iran Deal. A guide for Trump, Washington, Tehran, Europe and the Middle East, The Royal Institute of International)

¹³⁸ Fact Sheet: [The Prague Nuclear Agenda](#)—published by The White House—11 January 2017

and Medvedev. This was evidenced publicly when Medvedev came to the end of his presidential term, saying:

And of course, Barack, I would like to take the opportunity to say how much I enjoyed the cooperation we had with you. And I believe that it really was the highlight of the previous years. And due to the high level of cooperation, we managed to resolve various complicated issues bilaterally.¹³⁹

The NATO-Russia Council had been established following the NATO-Russia Founding Act (1997). There had only been two previous summits. However, as further evidence of the leading role of the U.S., in the March 2009 meeting of NATO, foreign ministers decided to resume formal meetings of the NRC. Michael McFaul recalls, “The substance of the NRC discussion was unprecedented: around the table heads of state from NATO countries discussed in earnest missile-defence cooperation with the Russian head of state!” (2019: 190) In the final NATO statement on the NATO-Russia Council meeting, it said:

The NATO nations and Russia have, today, agreed, in writing, that while we face many security challenges, we pose no threat to each other. That, alone, draws a clear line between the past and the future of NATO-Russia relations.¹⁴⁰

7.10.. The ‘defenestration’¹⁴¹ of the Prague Agenda (2010-2012)

Graham Allison writing in 2010 got the Prague Agenda spot on when he wrote:

Obama has put the danger of nuclear proliferation and nuclear terrorism at the top of his national security agenda. He called it “a threat that rises above all others in urgency”.... This is an extraordinarily ambitious agenda—easy to say, hard to do. And this work will encounter serious obstacles and stubborn adversaries (2010: 85).

A year later, Joseph Cirincione wrote, “Everything in the Prague agenda is proving to be more difficult and to take longer than envisioned one year ago” (Cirincione, 2010: 125)

Given the lessons learnt from trying to secure approval for the New START Treaty in Congress, the administration was also becoming more skilled at handling Congress on foreign policy issues. By ensuring the JCPoA was presented to Congress as an ‘Act/Agreement’ (Iran Nuclear Agreement and Review Act) rather than a ‘Treaty’, they would ensure that rather than requiring sixty-seven senate votes for approval opponents would need to secure sixty votes in the Senate to reject the Iran deal and to

¹³⁹ [Remarks by President Obama and President Medvedev of Russia After Bilateral Meeting | whitehouse.gov](#) Seoul, South Korea—26 March 2012

¹⁴⁰ [NATO-Russia set path for Strategic Partnership](#)---NATO—20 November 2010

¹⁴¹ Jütte, D., 2017. Defenestration as Ritual Punishment: Windows, Power, and Political Culture in Early Modern Europe. *The Journal of Modern History*, 89(1), pp.1-38.

strip the president of his sanctions-waiving authority¹⁴². If the president could secure forty-one votes in the Senate, Congress could not block it (Rhodes, 2019: 324).

10.1. Congress v The White House

It was another bruising battle in Congress, this time not just with Republicans but with Israel which lobbied hard with officials and leading Democrats to oppose the deal culminating in a speech to Congress in which Netanyahu denounced the INAR as a “very bad deal.”¹⁴³An indication of the political dynamics at play was that the White House said it was not consulted about inviting Netanyahu to address Congress. President Obama refused to meet Prime Minister Netanyahu, and Vice President Joe Biden and Secretary of State John Kerry were both “travelling” and unable to attend the speech in Congress.¹⁴⁴Eventually, the INAR was supported by forty-two senators¹⁴⁵ and to a change in political leadership (Stafford, 2015).¹⁴⁶

Congressional calculations were also at the heart of another pledge made in Prague: sending the CTBT to Congress for ratification. When the CTBT opened for signature at the UN on 24 September 1996, the United States was the first country to sign. But ratification required 67 votes in the Senate, and it could secure only 51 votes on 13 October 1999. When it came to President Obama’s attempt to break the deadlock and secure ratification, we are told, “Election-year politics has played a substantial role in the Obama administration’s reluctance to move on CTBT ratification” (Jones and March 2014: 222).

10..2. The President’s ‘delivery problem’

This raises an issue which goes very much to the heart of the problem of U.S. leadership—the ability of the president to ‘deliver’ on agreements and treaties entered into.¹⁴⁷ In his Prague speech, he had said his administration would “immediately and aggressively” pursue U.S. ratification of the CTBT. He then appointed his vice-president, Joe Biden, to

¹⁴² Katzman, K. and Kerr, P.K., 2016. *Iran nuclear agreement*. Washington, DC: Congressional Research Service.

¹⁴³ “[In a Speech to Congress, Netanyahu Blasts a “very bad deal” With Iran](#)” by Krishnadev Calamur published on NPR—3 March 2015—accessed 14 November 2024

¹⁴⁴ USIP: Iran Primer—[The Final Tally: How Congress Voted on Iran](#)—17 September, 2015

¹⁴⁵ [White House Fact Sheet: President Donald J. Trump is ending United States participation in an Unacceptable Iran Deal](#)—8 May, 2018

¹⁴⁶ ‘[How Obama beat Congress on Iran](#)’ by Timothy Stafford published by RUSI—2 September 2015

¹⁴⁷ Kimball, D., 2023. [Advancing the CTBT and Defending the De Facto Nuclear Test Moratorium](#) published by the Arms Control Association

ensure the safe passage of ratification. Moreover, Hilary Clinton attended the 2009 *Conference on Facilitating the Entry into Force of the CTBT* for the first time to declare that ‘ratification’ was an integral part of the (U.S.) non-proliferation and arms control agenda’. For the previous decade the U.S. had not attended the conference (Santoro, 2012: 23).

This speaks to a problem of U.S. foreign policy negotiation, for here was a cast iron and copper bottom guarantee delivered to international audiences, but the Commander in Chief was unable to deliver on it. Senator, Jon Kyl (R-Ariz) who declared “I will lead the charge against it and I will do everything in my power to see that it is defeated.”¹⁴⁸ Steven Pifer summarises the Prague Agenda as, “Given the need to deal with both the Russians and Republicans on Capitol Hill, his original agenda turns out to have been too ambitious” (2015:116).

That said, Dr John Walker, former Head of the FCO Arms Control and Disarmament Research Unit and recent author of *British Nuclear Weapons and the Test Ban* (2023) told me: One of the reasons why the CTBT failed was because U.S. Labs¹⁴⁹ and Joint Chiefs did not want one.” (Interview 4 September 2023). Rose Gottemoeller, who negotiated New START, confirmed, “There was no way to monitor explosive testing below a certain level....and some of the lab directors were very sceptical about the CTBT as the way to go” (Interview: 12 September 2023).

10.3. ‘Tipping Point’--Libya and UNSC 1973

Just as there was debate as to where the Prague Agenda started, so there is debate as to where it ended. The logical and most often referenced date is July 2015 and the signing of the JCPoA, but I want to suggest a much earlier date, which was not the end but the ‘beginning of the end’: On 7 March 2011, the vote in the UNSC on resolution 1973 authorising force to be used in Libya. The resolution led to the imposition of a no-fly zone. NATO would lead the mission, allowing the “U.S. would lead from behind” (Fritz, 2024: 154). The subsequent 9700+ air strikes by NATO led to Russian claims that the U.S., France, and the UK had exceeded their mandate.

¹⁴⁸ [‘Push for controversial Nuke Treaty not expected until next spring, at earliest’](#)—Josh Rogin in Foreign Policy Magazine—2 October 2009

¹⁴⁹ US Department of Energy—[National Nuclear Security Laboratories](#): Lawrence Livermore; Los Alamos and Sandia National

Ivo Daadler, a key Obama foreign adviser and co-author of the DePaul (2007) speech, would reflect that ‘NATO’s operation in Libya has rightly been hailed as a model intervention’ (Daadler and Stavridis, 2012: 2)—he served as the U.S. Permanent Representative to NATO from 2009 to 2013. Later, an in-depth report by the UK House of Commons Select Committee on Foreign Affairs (2016) would take a very different view. However, hindsight is a luxury of no use during a crisis.¹⁵⁰

Table 20. Correlation of Agenda

Prague Agenda (18 items)	Full Compliance	Partial Compliance	No compliance	Additional items	Correlation ranking (1-closest)
NPR (2000)	13	5	0	0	1
UNSC 1887 (2009)	9	4	5	3	2
DePaul speech (2007)	6	3	9	3	3
NPT RevCon (2000)	6	0	12	12	4
NPT RevCon (2010)	5	9	4	35	5
WSJ opinion (2007)	5	0	13	4	6

Whatever the impact in Libya, this intervention led to a breach in relations between the U.S. and Russia, which abstained from the resolution along with Germany (a NATO member), India, China, and Brazil.¹⁵¹ It would have long-term impacts on the R2P agenda.¹⁵² As Keeler points out, “we cannot predict how the world would have responded to the Syrian uprising without NATO’s “abuse” of Resolution 1973.”¹⁵³ The direct consequence of the UNSC was a rare public dispute over the abstention between President Medvedev and Prime Minister Putin. Putin¹⁵⁴ described UNSC 1973 as a “medieval summons to a crusade”¹⁵⁵ which he wanted to veto. Table 19 enables us to

¹⁵⁰ "HC 119 Libya: Examination of intervention and collapse and the UK's future policy options" (PDF). 14 September 2016.

¹⁵¹ Williams, P.D. and Bellamy, A.J., 2012. Principles, politics, and prudence: Libya, the responsibility to protect, and the use of military force. *Global Governance*, 18, p.273.

¹⁵² Responsibility to Protect (R2P) the global norm adopted at the World Summit (2005) and adopted by the UN General Assembly concerning the duty of the international community to intervene when faced with acts of genocide or crimes against humanity.

¹⁵³ Keeler, C., 2011. The end of the responsibility to protect. *Foreign Policy Journal*, 12.

¹⁵⁴ [Medvedev rejects Putin 'crusade' remark over Libya - BBC News](#) published 21 March 2011

¹⁵⁵ [Russia on the military intervention in Libya](#) by Marcin Kaczmarek at *Ośrodek Studiów Wschodnich*, (OSW)—The Centre for Eastern Studies.

deal with some myths about what the Prague Agenda is and is not. We see a very low correlation level between *WSJ* (2007) and Prague (2009). This is because the *WSJ* was about eliminating nuclear weapons. Prague was about three things: stopping terrorists from getting the bomb, stopping Iran getting the bomb, and engagement with Russia to achieve those aims.

11. Conclusions

11.1 Prague scorecard

Consolidating the above and reviewing the Prague Agenda, it is possible to attempt to produce a final scorecard. This does not aim to be a scientific assessment but more a template to guide a debate on whether the agenda was successful or unsuccessful and to explore the reasons for each judgement. I conclude that the Prague Agenda successfully achieved, either fully or partially, thirteen of its eighteen objectives (70%+). Of the remaining five objectives not met, the majority of the blame could be shared between the Administration (being vague on (g) and (k), Congress (CTBT), Russia and China (New START plus) and the Conference on Disarmament (FMCT).

Table 21. The Prague Scorecard

The Prague Scorecard (18 initiatives)	Actions	Comments	Assessment
(a) New START	New START was signed in April 2010 and Senate approval in December 2011	Forced to concede large nuclear weapons upgrade package for Senate vote ¹⁵⁶	✓
(b) START plus	'non-STARTer'	After the battle for getting New START approved further negotiations were shelved	✗
(c) Reduce the salience of nuclear weapons	There were changes announced in the Nuclear Posture Review 2010	Modest change to a 'reduced role' for nuclear weapons in deterring a non-nuclear attack (NPR, 15).	✓
(m) North Korea international action	References to North Korea in the NPR, 2010	General references UNSC 1887; specifically UNSC 2270 and 2321 but the Six-Party Talks ended in April 2009	✓

¹⁵⁶ Arms Control Association, [Recalling the Senate Review of New START | Arms Control Association](#) by Brian McKeon, October 2019

(o) reconsider European missile defence	In November 2010 NATO and Russia agreed to explore a joint missile defence system.	Unable to reach an agreement by 2012 ¹⁵⁷	✓
(p) Commitment to U.S. nuclear arsenal	Included in NPR 2010	Unequivocal commitment to U.S. nuclear arsenal (NPR, 35) plus upgrade	✓
(i) Ambition: <i>A world without nuclear weapons</i>	The wording used in the NPR 2010 for first time.	Used in UNSC 1887 wording and frequently in key speeches	✓
(d) CTBT ratification	A commitment made in NPR 2010 and in UNSC 1887	Promoted UNSC 2310 ¹⁵⁸ ; continued to observe a moratorium and in 2010 made a \$25 million contribution to the CTBTO ¹⁵⁹	✗
(e) FMCT	Blocked in Conference on Disarmament (CD)	The FMCT was referred to the CD, but blocked by Pakistan. U.S. sought to unblock CD via P5 process but failed ¹⁶⁰	✗
(f) Secure nuclear materials in four years	In NPR 2010 (vii); UNSC 1887 and NSS	NSS 935 commitments; U.S.-Russian Plutonium Management and Disposition Agreement (PMDA) (2011) ¹⁶¹	✓
(g) GICNT and PSI durable institutions	One of the less clear pledges, never really spelt out.	PSI member states continue to increase, helped by NSS. GICNT continued until 2022 when Russia suspended activities as co-chair ¹⁶²	✗
(h) New Global Nuclear Security Summit	NSS summits held in 2010, 2012, 2014 and 2016	Significant successes in improving nuclear security ¹⁶³	✓
(i) NPT strengthened	It not clear what new powers, tools, instruments, or	The U.S. did launch the new IPNVD ¹⁶⁴ to	✓

¹⁵⁷ [NATO-Russia Missile Defence: Compromise is still Possible](#) by Steven Pifer for Brookings 28 December 2012

¹⁵⁸ [S/RES/2310 \(2016\)—UN](#)—23 September 2016

¹⁵⁹ [‘Large Voluntary Contribution by the United States to the CTBTO’](#)—21 September, 2010

¹⁶⁰ U.S. State Department—[Remarks by Rose Gottemoeller to Conference on Disarmament](#), Geneva—24 January 2012

¹⁶¹ White House [Fact Sheet: Prague Nuclear Agenda](#)—11 January 2017

¹⁶² US State Department—[Joint Statement of the Global Forum to Prevent Radiological and Nuclear Terrorism](#)—15 November 2024

¹⁶³ White House [Fact Sheet: The Nuclear Security Summits: Securing the World from Nuclear Terrorism](#)—29 March 2016

¹⁶⁴ [International Partnership for Nuclear Disarmament Verification \(IPNDV\) and the NPT](#)—20 March 2015

	resources were intended	strengthen verification (2014).	
(j) NPT/IAEA extra resources and powers	Extra resources for IAEA	In 2012 the U.S. pledges \$50 million to the IAEA to fund Peaceful Uses Initiative (PUI) ¹⁶⁵	✓
(k) NSG/G7/Zangger upgrade	Unclear what this upgrade was meant to be	Not clear that there have been any significant new initiatives	✗
(n) Engage with Iran	JCPOA	Major achievement for Prague Agenda in both the JCPOA and UNSC1929, which finally forced Iran to negotiate.	✓
(q) Expand cooperation with Russia	Moscow Summit (2010); U.S.; New START (2010); U.S.-Russia Bilateral Presidential Commission	Significant progress on many fronts, especially between Obama and Medvedev.	✓
(l) International nuclear fuel bank	Low Enriched Uranium fuel bank launched in 2015	First LEU fuel bank in Kazakhstan with a strong U.S. and IAEA support ¹⁶⁶	✓

Writing in 2017, Angela Kane the hugely respected former German diplomat and UN High Representative for Disarmament Affairs (2012-2015) reflected “It is clear the Prague Agenda has lost urgency and power; the momentum behind it has been lost, and the expectations of progress have dwindled” (2018: 41). This is a fair comment at the time, as Barrack Obama, the architect and inspiration behind the agenda, was about to leave office. But the urgency, agreement and power had been lost earlier.

It is difficult to be precise because ‘loss of momentum’ is gradual. However, with respect to Russia, Vladimir Putin returned to the presidency in 2012. The beginning of the end for the Russian ‘reset’ was the NATO intervention in Libya in March 2011. A further change on the nuclear security side was the death of Osama bin Laden in May 2011, which, for some, took the urgency out of some of the nuclear security and terrorism agenda. It was also a presidential election year for Obama, and attention was naturally focused domestically and on the unofficial slogan of ‘bin Laden is dead: General Motors is alive’.¹⁶⁷

¹⁶⁵ U.S. State Department—[IAEA Peaceful Uses Initiative and the NPT](#)—13 March 2012

¹⁶⁶ White House Press Statement on [IAEA LEU Fuel Bank](#)—26 August, 2015

¹⁶⁷ Attributed to Joe Biden

Evidence for this shorter 'window' for the Prague Agenda is illustrated the annual setting of the Doomsday Clock by the Bulletin of Atomic Scientists (14 January 2010). In 2010 they turned the clock back and gave humanity another minute--moving the clock from five minutes to midnight to six minutes to midnight.¹⁶⁸ But, that 'minute gained' was lost in 2012 as the clock went forward again. The successful NSS in Seoul (2012) and positive P5+1 negotiations on Iran were rare fill-ups for an agenda already running on empty. Today (2024) the Doomsday Clock is set at 90 seconds to Midnight. It is hard to say whether the loss of 4 minutes 30 seconds between 2010 and now was impacted more by the return of Putin or the arrival of Trump. But the nuclear world was probably a safer place with Obama in the White House; Medvedev in the Kremlin (and Ju Jintao in Beijing). There were attempts to revive the agenda with the Berlin speech in 2013, but Putin's gaze was not in Washington but on Crimea. There was an opinion piece by Obama in the Washington Post (2016)¹⁶⁹ Followed by a compelling and moving speech at the Hiroshima Peace Memorial (2016).¹⁷⁰ But Obama was an intelligent politician and knew that the chances of regaining momentum, once lost, are near impossible. The result was that once loyal NGOs, think tanks and campaigners, began to turn on the president, e.g. Dr Barry Blechman co-founder of the influential Stimson Center wrote a polemic in National Interest titled 'Obama Should Return His Nobel Peace Prize'¹⁷¹ Gary Samore reflected:

[C]riticism of government is normal and healthy. Nonetheless, I did find it disheartening (but not surprising) that some of the debate over the administration's nuclear policies degenerated into gratuitous, dishonest, partisan sniping like so much else in Washington (2013)¹⁷²

Steve Fetter told me:

You can't blame Obama for the failure to make additional progress in reducing nuclear weapons. We reviewed the employment policy. There was a decision that we could reduce to 1000, and Obama proposed that in a Berlin speech in 2013....but Putin rejected it. It's hard to blame Obama. He did everything he could (Interview: 21 September 2023)

Could things have been done better? Of course, this is politics; things go wrong, and unexpected events happen. If you want perfection, do not try to change anything, and

¹⁶⁸ Bulletin of Atomic Scientists: [It is six minutes to midnight](#) Science & Security Board, 14 January, 2010.

¹⁶⁹ Obama, Barack (2016) [How We Can Still Make Our Vision of a World Without Nuclear Weapons a Reality](#), published by Washington Post, 30 March 2016

¹⁷⁰ The White House—[Remarks by President Obama and Prime Minister Abe at the Hiroshima Peace Memorial](#)—27 May 2016.

¹⁷¹ Blechman, B.M., (2016) '[Obama Should Return Nobel Peace Prize](#)' The National Interest, 4 June 2016

¹⁷² '[Making a Difference: Creating and Implementing the Prague Agenda](#)' by Dr Gary Samore in Carnegie Reporter magazine Summer, 2013 (vol.7/no.2).

certainly do not challenge concentrated centres of established power on the way. Could the CTBT have been sent to Congress early in 2009? Could New START approval have been concluded before the 2010 mid-terms without the trillion-dollar upgrade deal? Was the world really a safer place because of the NATO-led mission in Libya, when it came at the expense of bipartisan work on nuclear security and non-proliferation with Russia and even undermining NATO solidarity? The decision to upgrade the 200 forward-deployed U.S. B-61 gravity bombs in Europe was seen as odd, given Obama's 2013 speech in Berlin calling for "bold reductions in U.S. and Russian tactical weapons in Europe."¹⁷³ The U.S. displayed some petulant and heavy-handed behaviour in 2016-17 in trying to erode support for the TPNW, which lost friends, as highlighted in the previous chapter. This was odd as the NPR 2010 and the president and the UNSC 1887 had all set out the desire for a 'world without nuclear weapons'.

Politics and international relations are not a branch of theology, but a branch of economics based on 'the trade'. Trading priorities and trading resources domestically and internationally. George Perkovich, the great scholar of the nuclear order, noted, "The first principle is that strengthening the nuclear order will require bargaining" (2008: 17).¹⁷⁴ Russia backs UN sanctions on Iran because the U.S. is lifting sanctions on Russia. In return for being able to send U.S. military personnel and supplies across the border into Afghanistan, the U.S. agrees to reconsider plans for missile defences in Europe. Of course, this is all well and good when you have great power to trade with, but what if you don't? This is the tension in the INWO, as in the global order, between seeking order and delivering justice. Zachary Davis (1993/2020) wrote that the non-proliferation regime:

Exists not because of any benign transformation in state behaviour, interests or identities, as liberals suggest, but because of the mutual interests of great powers, particularly under U.S. leadership, to create a co-operative arrangement that can stop the spread of nuclear weapons and thus sustain the existing nuclear status quo (2020: 77)

Unlike commentators, NGOs, and even academic researchers, political leaders have a myriad of different crises and pressures to wrestle with. Who are we to judge if the CTBT approval had to be abandoned so that a package of measures to save thousands of jobs in the motor industry or save lives amongst the poorest in society are prioritised ahead of our 'pet project'? For me, Barack Obama more than earned his Nobel Peace Prize

¹⁷³ The White House—[Remarks by President Obama at the Brandenburg Gate, Berlin](#)—19 June 2013

¹⁷⁴ Perkovich, G., 2008. [Principles for Reforming the Nuclear Order](#). Security Studies Department (IFRI).

because 'he tried', and, when properly understood, the agenda he set out in Prague was largely delivered upon.

As a result, there were far fewer nuclear weapons in the world when he left office than when he arrived (22,524 (2009)—14550 (2017), a reduction of 7974 weapons—35%, SIPRI, 2023). There was less weapons-grade fissile material. Without Obama and the Prague Agenda, it is unlikely that the NPT Review Conference would have ended in agreement (Smetana, 2018: 3). There were more robust safeguards to prevent nuclear materials from falling into the hands of terrorists, and there was one less terrorist—Osama bin Laden. Finally, there was one less nuclear weapons state (Iran) than there might have been. The fact that the 'awakening' of INWO has regressed since then should not undermine the achievements of Prague Agenda or Barack Obama because at least they tried and showed that progress was possible. Others tempted to try again should study the lessons of the Prague Agenda carefully before doing so.

Chapter 8. Case Study 2. The P-5 process

[T]he UK is willing to host a technical conference of P-5 nuclear laboratories on the verification of nuclear disarmament before the next NPT Review Conference in 2010... As part of our global efforts, we also hope to engage with other P-5 states in other confidence-building measures on nuclear disarmament throughout this NPT Review Cycle.

Address by [Lord] Des Browne, UK Secretary of State for Defence, to the Conference on Disarmament in Geneva on 5 February 2008¹

1. Introduction

The purpose of this case study on the P-5 process is to explore the themes and claims made in the research and analysis. The P-5 process differs in several important ways from the Prague Agenda. First, it was an initiative of a middle-ranking great power, the UK, rather than of the leader of the INWO, the United States; second, its aims were more modest, namely to promote trust and confidence between the five recognised NWS; third, it was rooted firmly in attempts to preserve the legitimacy of NWS within the NPT and fourth, it continues to function, just, unlike many of the Prague initiatives.

The two case studies have similarities too: First they were both reflected domestic political challenges of their times—in the case of the P-5 process, the decision to renew Trident by the Labour government which was deeply unpopular amongst many of its members and supporters; second, they were both deeply concerned about the potential collapse of the nuclear non-proliferation order and its implications for nuclear security; third, they were both inspired, or at least, encouraged, by the *WSJ* opinion articles of Schultz, Kissinger et al (2007). However, whereas the Prague Agenda developed without the P-5 process, it is not clear that the P-5 process would have materialised without the Prague Agenda.

This then brings us to the way in which the P-5 process fits with the claims of the analysis made to this point: First, the P-5 process illustrates the claim that this is an *inter-national* order in that the principal actors are nation-states; second, we see evidence of great

¹ CD/PV.1087—5 February 2008—Final Record of the 1087th Meeting of the Conference on Disarmament (page 7) accessed 15 December 2024

power management and the belief that great powers need to manage relations between themselves and preserve their legitimacy to maintain their privileges in the system; third, that non-proliferation of nuclear weapons remains the strongest common interest in the INWO, and 'what holds it together' (Ruggie, 1998: 885); fourth, that in the INWO with the U.S. anything is possible and without the U.S. nothing is possible and finally, the compelling instinct to create new institutions and agreements rather than reform existing ones adding to the 'baffling complexity' of the INWO.

2. Context and approach

In the previous chapter, we noted the abundance of research material and interviews in the United States that were available to tell the story of the Prague Agenda. Telling the story of the P-5 process is an altogether different challenge. With the Prague Agenda, the challenge was to filter the vast sources of material. With the P-5 process, the challenge has been to find authoritative sources to examine its origins, work and influence. It is not an open process but a permanent dialogue between the five NWS that are parties to the NPT. Their discussions are private, and communications are periodic. In many ways, this was a function of design and purpose. The objective of the P-5 was to build trust and confidence between NWS when it was at a historic low.

2.1. Decline in P-5 relations

The reasons for relations between the P-5 being low were multiple amongst them: The very public withdrawal of the U.S. from the ABM Treaty (2002); plans by the U.S. to install missile defence systems in Poland and the Czech Republic (2007); the acrimonious failure of the 2005 NPT Review Conference (Müller, 2005); the announcement of the U.S.-India Civil Nuclear Cooperation Initiative,² which Harsh V. Pant claimed, 'has virtually rewritten the rules of the global nuclear regime' (2007: 455). There was a stalemate over the CTBT and FMCT. Meanwhile, North Korea had withdrawn from the NPT (2003) and conducted its first nuclear test in 2006³ and Iran was found by the IAEA to have undeclared enrichment and reprocessing activities (2003) and, most significantly, the invasion of Iraq (2003), which not only split the P-5, but it also split NATO too.

One senior British diplomat, Alyson Bailes wrote, 'The crisis of 2001-03 in transatlantic relations has been beyond question one of the worst, perhaps the worst, in post-World War Two history' (2004: 19). The principal reason was the decision to invade Iraq taken

² U.S. State Department Archive—[U.S.-India Civil Nuclear Cooperation](#)—accessed 26 December 2024

³ Chatham House, 2020. [Perspectives on Nuclear Deterrence in the 21st Century](#), in chapter on 'Nuclear Deterrence Destabilized' by Dr Maria Rost Rublee—11 December 2020

by the U.S., with support from the UK, but without a clear UN mandate and opposed by NATO allies France, Germany, Belgium and Canada. Henry Kissinger wrote, ‘The road to Iraqi disarmament has produced the gravest crisis in the Atlantic Alliance since its creation five decades ago’ (Theis, 2007: 31).

2.2. *limited sources*

Another challenge of analysing the P-5 process compared to the Prague Agenda is that it attracted far less attention/interest from scholars and commentators, perhaps because of the intentional low-key nature of the meetings. Kaori Uekawa and Kazuko Hikawa noted that the P-5 process ‘has received little attention’ (2024: 28), especially outside of the UK. Substantial articles and analysis tended to come from UK-based scholars (Leveringhaus and Hurrell, 2020)⁴ and King’s College, London (KCL).⁵ UK based think tanks, primarily the European Leadership Network (ELN),⁶ Nuclear Education Trust,⁷ BASIC⁸ and RUSI.⁹ notable non-UK exceptions are a paper by Alexey Arbatov published by the University of Hamburg,¹⁰ The Foundation for Strategic Research (Fondation pour la recherche stratégique or FRS) in Paris¹¹ and references in the comprehensive volume, ‘Nuclear Weapons: State of Play’ report in 2012 by the Australian National University.¹²

⁴ Leveringhaus, N. and Hurrell, A., 2017. Great power accommodation, nuclear weapons and concerts of power. In *Great power multilateralism and the prevention of war* (pp. 225-243). Routledge.

⁵ Elbahtimy, H. 2022. [NPT Briefing Book](#) published by King’s College London

⁶ Hoell, M., 2019. [P-5 Process: Ten Years On](#). European Leadership Network; Hoell, M. and Persbo, A., 2022. [Overcoming disunity: Reinvigorating the P-5 Process a decade on](#). European Leadership Network; Ritchie N. 2013. [Pathways and purposes for P-5 nuclear dialogue](#). [European Leadership Network](#).; Shetty, S. and Williams, H., 2020. [The P-5 Process: Opportunities for Success in the NPT Review Conference](#). *European Leadership Network (17 May 2021)*.⁶ Hoell, M. and Enright, E., 2020. [Lessons from the London P-5 Conference: Why civil society engagement is key to the process](#) published by ELN; Selezneva, D. 2020. [Swimming through a sea of troubles: Russia and the P-5 Process](#) published 9 June 2020 by ELN; Bixley-Williams, S., 2020. [The P-5 Process: The United Kingdom’s coordination in 2019-2020](#) published by ELN 30 April 2020—(Sebastian Bixley-Williams is co-director of BASIC).

⁷ Street, T., 2024. [The Future for UK Defence, Diplomacy and Disarmament](#). NET

⁸ Street, T., 2015. [Analysis: The P-5 Process](#) published by BASIC; Chandley, K., 2015. [Background Briefing: ‘The P-5 process History, What to Expect in 2015](#) by BASIC; McGarry, C. 2012. [Backgrounder on P-5 the Conferences: London, Paris, Washington and the Future](#) published by BASIC 25 June 2012; Cottey, A. 2011. [Multilateralizing Nuclear Disarmament Nuclear Arms Control—An Agenda for the P-5](#) published by BASIC on 28 June 2011

⁹ Berger, A., 2014. [The P-5 Nuclear Dialogue—Five Years On. occasional paper](#) (London: Royal United Services Institute, 2014); Berger, A. and Chalmers, M., 2014. [The art of the possible: the future of the P-5 process on nuclear weapons](#). *Arms Control Today*, 44(8), p.8.; Berger, A. and Chalmers, M., 2013. [Great Expectations: The P5 Process and the Non-Proliferation Treaty](#). Royal United Services Institute.

¹⁰ Arbatov, A., 2015. [The P-5 Process: Prospects for Engagement](#), Deepcuts Working Paper, No 3, January 2015, published by the Institute for Peace Research and Security Policy, University of Hamburg

¹¹ Maitre, E., and Hautecouverture, B., 2022. [The NPT and the P-5 process: Conference report-P-5, Track 1.5 Meeting](#) published by Fondation pour la recherche stratégique (FRS)—26 January 2022

¹² Thakur, R. and Evans, G., 2013. *Nuclear weapons: the state of play*. Centre for Nuclear Non-Proliferation and Disarmament, Crawford School of Public Policy, The Australian National University.

The dominance of U.S. literature on the INWO has been noted. In respect of the P-5 process, however, we see that of the nineteen scholarly papers/briefs reviewed, sixteen (84%) are by UK-based scholars/organisations, and none are from the U.S..¹³

2.3. UK thought leadership

As we saw with the Prague Agenda, the ‘thought leadership’ of U.S. think tanks, advocacy groups, and academic institutions becomes a powerful tool for re-enforcing U.S. leadership in the INWO. It is something in which the UK and U.S. excel. However, other NWS are more circumspect in thinking publicly about the most potent aspect of their national security. Relatively little research is generated from NWS, such as China,¹⁴ France,¹⁵ Israel,¹⁶ Pakistan and Russia¹⁷—none from North Korea, but there are a number in India.¹⁸

These papers share the strong engagement of the European Leadership Network (ELN) in supporting and analysing the P-5 process.¹⁹ The 2020 paper by King’s College London and the ELN (Shetty and Williams, 2020) was part of an FCDO P-5 Civil Society Engagement event surrounding the London 2020 P-5 meetings. Papers then sometimes form the basis for Wilton Park conferences (an executive agency of the FCDO).²⁰

This leadership of the UK is of interest also because we have hitherto argued that the INWO is a U.S.-led order. During the interviews, I found a general sense of UK pride and ownership of the P-5 initiative. If this is a UK-led approach, what is the role of the U.S.? The answer will depend on whether we view the process from one of three perspectives: the first is that the P-5 process is irrelevant—one NNWS diplomat said the P-5 process

¹³ The Arms Control Association ‘Nuclear Disarmament Monitor’ publishes regular news updates on [P-5 meetings](#).

¹⁴ For a useful overview of foreign policy and security dialogues between China and the U.S. see: ‘[The United States and China—Designing a Shared Future](#)’ by Amanda Kerrigan, Lydia Grek and Michael Mazarr published by RAND, 21 November 2023

¹⁵ Notable exceptions would include the [Nuclear Knowledges Programme at Sciences Po](#), Paris

¹⁶ Notable exceptions would include the [Institute for National Security Studies at Tel Aviv University](#)

¹⁷ For a useful overview of foreign policy and security think tanks in Russia and their affiliations see: ‘[Thinking Foreign Policy in Russia](#)’ by Anton Barbashin and Alexander Graef published by The Atlantic Council, 12 November 2019

¹⁸ For a useful overview of Indian foreign policy think tanks see: ‘[Think Tanks in India and the United States and alignment of state and corporate goals](#)’ by Urvashi Sarkar published by City University of London, 7 September 2021.

¹⁹ The [ELN](#), based in London, was founded by Lord Des Browne who, as Secretary of State for Defence in the UK first proposed the P-5 idea. Lord Browne remains Chair of the ELN (as at 2024)

²⁰ Wilton Park, 2013. ‘Conference Report: Towards the 2015 NPT Review Conference’ by Horsburgh, N.A. and Harries, M., 2014. (WP 1265); Wilton Park, 2018. Report: The nuclear non-proliferation regime towards the 2020 NPT Review Conference (WP 1633) published 2019 by Wilton Park (an executive agency of the UKFCDO); [Towards global nuclear order: deterrence, assurance and reductions](#) (WP1211).

was widely regarded as a ‘hamster wheel’ in diplomatic circles, ‘giving the illusion of activity without making any real progress’. At the other end of the scale are senior figures in the U.S. who point out that ‘the P-5 is the only forum to engage with China on its nuclear weapons programme’ (Interview: October 2023). Sir Adam Thompson, former UK ambassador and Director of ELN told me, “The P-5 process is a key bit of this in our minds because it's very hard to see nuclear risk being reduced unless the P-5 are making sense on it.” (Interview 20 September 2023). There is a range of opinions between these three points as we shall discover.

2.4. Contribution to the literature

Finally, the structure of the chapter is designed to ‘make a contribution to the literature’ in the field rather than duplicate it. In the papers and publications referred to, there is a strong body of work on the meetings of the P-5 and their work agenda. The five areas that are less well considered are: first, tracing the intricate and patient diplomacy which led to the first meeting in 2009; second, shedding light on the nature and conduct of P-5 meetings; third, placing this in the wider context of developments within the INWO and Prague Agenda; fourth, examining individual P-5 perspectives and motives for joining the P-5 and finally to bring the progress of the P-5 process up to date as most of the existing literature was written before 2015. This will, therefore, be the focus of the analysis and contribution to the literature.

3. The Road to London²¹

3.1. UK a ‘unique’ nuclear power

The UK has a unique role in the evolution of the INWO. The British atomic weapon development programme had started with the work of Frisch and Peierls at the University of Birmingham in 1940. The formation of the MAUD committee which then developed into the Tube Alloys programme with the Canadians in 1941. This was before the United States had officially entered the war. The Manhattan Project formally began development of a weapon with close cooperation with British scientists in 1942. This then resulted in the 1943 Quebec Agreement when the U.S. effectively took over control of the Tube Alloys programme and brought it under the Manhattan Project (Wheeler and Clark, 1989).

²¹ The first meeting of the P-5 process (referred to officially as, The London Conference on Confidence Building Measures towards Nuclear Disarmament) held at the FCDO, London 3-4 September 2009

At the time of the signing of the Nuclear Non-proliferation Treaty the UK was one of only three declared nuclear states and became a Depository State,²² along with the U.S. and the Soviet Union, giving it special duties and responsibilities. The NPT opened for signature in 1968, and for the first twenty-four years, there were only three recognised NWS, with France and China not joining until 1992. This gave the UK a pivotal role during the early life of the NPT in shaping its norms and rules. However, as Nick Ritchie puts it:

Britain's identity as a 'pivotal' power.....and its status as a nuclear weapons state cannot conceivably exist without America...Anchoring itself to the U.S. is therefore a fundamental part of British security strategy and identity and nuclear weapons are seen as both an important part of that anchor and a symbol of its strength' (Ritchie, 2008: 8).

3.2. The U.S.-UK special 'nuclear' relationship

UK influence within the INWO undoubtedly comes largely because of its close nuclear partnership with the U.S., though this would be contested. As a result of the U.S.-UK Mutual Defence Agreement²³ (1958) the UK decided to purchase the U.S. Polaris missile system (1963) and accompanying nuclear submarine technology.²⁴ In 1982 this agreement was upgraded for the UK to purchase the Trident II missile system (Stocker, 2007). Since 1962, and as a condition of the purchase of Polaris (Nassau Agreement, 1962), the UK nuclear deterrent is assigned to the defence of NATO's Multilateral Force, except in situations where 'supreme national interests are at stake' (cf. Article 8 of the Nassau Agreement) (Davis, 2015). The United States made a similar offer of Trident II to France which was rejected by General de Gaulle in favour of an independent French nuclear deterrent (Kolodziej, 1974).

²² 'a depositary is designated whose duties include accepting signatures; receiving instruments of ratification, acceptance, approval or accession; informing the signatories of the date of each signature, of the deposit of each instrument and of the entry into force of the treaty; as well as receiving and circulating other notices, which may include notifications of succession to the treaty, denunciation or withdrawal and proposals for amendment. The depositary makes arrangements for registering treaties with the United Nations pursuant to Article 102 of the UN Charter' Goldblat, J., 2002. Arms Control: The New Guide to Negotiations and Agreements with New CD-ROM Supplement published by SIPRI (page 6)

²³ For a detailed examination of the extent of the MDA in practice see: BASIC Special Report: [US-UK nuclear weapons collaboration under the Mutual Defence Agreement](#) by Nigel Chamberlain, Nicola Butler and Dave Andrews (June 2004). Using material gained from Written Answers to Parliamentary Questions by Alan Simpson MP it showed that there had been 43 separate Joint Working Groups between the nuclear laboratories in the UK and the US and that in 2002 182 visits were made to the U.S. under the MDA by AWE involving 313 personnel and 103 visits were made by U.S. involving 485 personnel under the MDA to AWE (page 10) and that the UK had supplied the US with 5.4 tonnes of plutonium under the MDA (page 22).

²⁴ House of Commons Library, Standard Note: SN/IA/3147 '[UK-US Mutual Defence Agreement](#)' by Claire Mills dated 20 October 2014.

The UK also has nuclear relations with France through the Teutates Treaty (2010)²⁵ and with Australia and the U.S. as part of AUKUS (2021). As a member of the Commonwealth, the UK shares a history and connection with India and Pakistan, which can be used to de-escalate nuclear tensions.²⁶ Whilst the relevance of British nuclear weapons may be ‘overstated’ (Ritchie, 2009), for the purposes of this analysis, the fact that the UK nuclear deterrent is ‘intertwined’ with that of the U.S., leader of the INWO, does give it leverage and influence at the heart of the INWO.

Some have questioned whether the UK nuclear deterrent is truly independent.²⁷ ‘The United Kingdom is unique in that its nuclear program is highly intertwined with that of another nuclear-armed state: the United States.’²⁸ The relationship is not without risks to the UK as Sir Michael Quinlan, former Permanent Secretary of the MoD told the Defence Select Committee in the UK in 2006:

We have not got independence for procurement [of our nuclear weapons] and the result of that is that if, over a very long period, we became deeply estranged from the Americans and they decided to rat on their agreements, we would be in schtuk, great difficulty²⁹

4. The origin or the P-5 process idea

Informal consultations between the P-5 in relation to the NPT were not new (Leveringhaus and Hurrell, 2017) they have been recorded in 1995.³⁰ There was a proposal made by

²⁵ This agreement has been augmented by the [Northwood Declaration](#) signed between Britain and France on 10 July 2025. The Declaration established a new UK-France Nuclear Steering Group to help shore up European nuclear deterrence in the face of an increased Russian threat and the perceived unpredictability of United States commitments to the defence of Europe.

²⁶ BASIC (British American Security Information Council), 2023. [Event Compendium Discussion: Crisis Communications: Indian and Pakistani Perspectives on Responsible Practices](#)—Chiara Cervasio, published 25 July 2023.

²⁷ Chamberlain, N., Butler, N. and Andrews, D., 2004. [US-UK nuclear weapons collaboration under the Mutual Defence Agreement](#). Published by BASIC.

²⁹ House of Commons, 2006: Defence Select Committee, Minutes of Evidence, Tuesday 14 March 2006 (Q.49) Sir Michael Quinlan 27 Chamberlain, N., Butler, N., and Andrews, D., 2004. US-UK nuclear weapons collaboration under the Mutual Defence Agreement. Published by BASIC.

29 House of Commons, 2006: Defence Select Committee, Minutes of Evidence, Tuesday 14 March 2006 (Q.49) Sir Michael Quinlan.

³⁰ The 1995 Review and Extension Conference of the NPT was crucial in deciding to extend the NPT regime indefinitely via Article X (2) of the NPT, which states, ‘Twenty-five years after the entry into force of the Treaty, a conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods’. The indefinite extension was agreed to unanimously.

³⁰ The 1995 Review and Extension Conference of the NPT was critical in deciding to extend the NPT regime indefinitely by Article X (2) of the NPT, which states, ‘Twenty-five years after the entry into force of the Treaty, a conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods’ the indefinite extension was agreed to unanimously.

Vladimir Putin at a summit with Jacques Chirac in July 2001 for the establishment of a “permanently operating consultation process” between the five recognized NWS under the NPT, but this did not progress.³¹ When I asked Lord Des Browne to reflect upon the events leading up to the P-5 initiative, he told me:

So, essentially my contribution to the formation of what has come to be known as the “P5” started with my appointment as the Secretary of State for Defence on 5 May 2006. Before my appointment to that post, I was the Chief Secretary to the Treasury. Owing to necessary changes at the Home Office, there was a reshuffle. John Reid was appointed Home Secretary, and I succeeded him as the Secretary of State for Defence. Prior to taking up at the post, I had a conversation with the then Prime Minister, Tony Blair, during which I agreed to do the job on the condition that I could advance multilateral nuclear disarmament. I had long believed that such disarmament would make a contribution to strategic and global security (Interview: 22 November 2023)

4.1. Trident renewal

The first task for Des Browne as Defence Secretary would be to complete preparations for a White Paper for the renewal of Trident, a deeply contentious issue within the Labour Party. During the same reshuffle in May 2006, Margaret Beckett replaced Jack Straw as Foreign Secretary. Professor Malcolm Chalmers was a Special Adviser in the FCO at the time and reflected that it was interesting that “two disarmers”³² (Interview: 17 October 2023) were going to oversee preparing the Trident White Paper. Of course, their work would be overseen by the Prime Minister. Malcolm Chalmers continued:

I think the Blair partly wanted the decision out there before he left and passed it on to Brown, but I think Brown was supportive. He [Brown] was very quiet about it because of party politics as he wanted to appeal to the Left...It wouldn't have happened without him [Brown]³³ (Interview: 17 October 2023)

The White Paper, *The Future of the United Kingdom's Nuclear Deterrent* (Cm 6994, 2006), was a joint publication between the Ministry of Defence and the Foreign & Commonwealth Office. When it was published in December 2006, it recommended renewal:

The international security environment did not justify complete nuclear disarmament and that, in terms of both cost and capability, retaining the

³¹ Arms Control Association, 2001. [‘Moscow Seeks Five-Way ‘Strategic Stability’ Talks](#); also attributed to a proposal by Russian Ambassador Alexander Yakovenko ‘Russian P-5 Initiative’ cited in Street, T., 2015. [Analysis: The P-5 Process](#) published by BASIC (footnote 24, page 4).

³² New Statesman 2006. [Interview with Margaret Becket](#) by Mary Riddell published 18 December 2006. Asked if she “Beckett” had been a member of CND she replies “Oh yes. For years”.

³³ BBC News Report—[‘Blair Pressed over Trident Vote’](#) published 28 June 2006 quotes “Mr Brown signalled in a speech last week that he wanted to replace Trident, which is expected to become obsolete in 2024”

submarine-based Trident system would provide the most effective nuclear deterrent for the UK [Mills, 2024: 9]³⁴

4.2. Tribulations over Trident

The White Paper's recommendation to renew Trident was put to a vote on 14 March 2007 in the House of Commons, during which the Labour Party suffered one of its largest rebellions: 87 Labour MPs, including some ministers who had resigned ahead of the vote, voted against the recommendation (despite a three-line whip).³⁵ The vote was won 409 votes for to 161 votes against due to the support of Conservative MPs. It had been a bruising battle within the Labour Party, and some felt more needed to be done to make the case for a stronger commitment to disarmament.

4.3. The motivation in Whitehall

Dame Mariot Leslie³⁶ told me:

In the United Kingdom Ministers began to think we need to do more. We can't just allow the world order to collapse on all of this. It is extremely dangerous. We don't want to alarm the public but we should be using our great power responsibility, our P-5 responsibility, our foreign policy experts to try to do something about this challenge. (Interview: 9 November 2023)

The reference to the 'order' collapsing is linked to the outcome of the NPT Review Conference in 2005. The blame for this was attributed by some to the UK and its steadfast support for the U.S.. Harald Müller³⁷ one of the most respected European scholars on nuclear matters noted:

[T]he British role became very problematic through its appeasement of the cherished big ally. One could have the impression that the British delegation was working under the instruction to do everything to avoid U.S. isolation.... In this way, Britain contributed to the confrontational course of the Conference.³⁸

³⁴ House of Commons Library Research Briefing [No 8010] '[Replacing the UK's strategic nuclear deterrent: Progress of the Dreadnought Class](#)' by Claire Mills published 2 August 2024

³⁵ [BASIC Note: The UK Trident Vote Explained](#) by Dr Ian Davis published 15 March 2007

³⁶ Dame Mariot Leslie was a former British diplomat (Oslo, 2002-2006) who was appointed in quick succession Director, Strategic Threats and Strategic Threats and Counter-Terrorism Envoy at the UK Foreign & Commonwealth Office (FCO) (2006-2007) and then Director General Defence and Intelligence (FCO, 2007-2010). In the latter roles, she had come across growing international concern regarding the dangers of nuclear materials falling into the hands of terrorist organisations.

³⁷ Harald Müller is a Senior **Associate at Peace Research Institute Frankfurt and Peace Research Center Prague.**

³⁸ Müller, H., 2005. *The 2005 NPT Review Conference: Reasons and consequences of failure and options for repair* (Vol. 31). Stockholm: Weapons of Mass Destruction Commission.

This is important because it suggests that responsibility and legitimacy concerns were evident in the UK's thinking about the P-5 proposal.³⁹ This view on the importance of responsibility was confirmed by Dr John Walker, who served as Head of the Foreign and Commonwealth Office's Arms Control and Disarmament Research Unit (ACDRU) (2014-2020) and told me:

But the key element of it [the P-5 process], I think was certainly for the U.S. and UK that we have responsibilities and some common interest-NNWS who complain about our lack of progress on under Article VI [of the NPT—disarmament]. So, we ought to be able to try and manage this debate and minimise the criticism of us. (Interview: 4 September 2023).

This linkage of the thinking between the growing international counterterrorism and non-proliferation agenda driven by the U.S. and Russia through CIGNT, and the corresponding concerns, especially by NNWS, of the lack of progress on Article VI obligations of the NWS was confirmed by Dame Mariot Leslie:

It [the P-5] would also buy us some time with countries that were friends of ours, like the Norwegians and New Zealanders, who were pressing very hard for much greater progress on disarmament because we could persuade them to wait and see what we could do by way of confidence-building measures among the P-5 (Interview: 9 November 2023)

4.4. *The Beckett Speech in Washington*

As discussed in the previous chapter, a movement was gathering pace in the early months of 2007 around the Schultz, Kissinger, Perry and Nunn article in the *Wall Street Journal* titled 'Towards a Nuclear-Free World'. Professor Malcolm Chalmers,⁴⁰ Deputy Director General of RUSI, told me:

[T]he other thing which provided an opportunity was the debate that was going on in the U.S. as a result of the Schultz, Perry, Kissinger and Nunn article in *The Wall Street Journal*. ... we got an invitation in for her to speak at Carnegie's Annual Conference in Washington and I think the official advice was no. But I said "no, this is a good idea".... (Interview: 17 October, 2023)

The speech by Margaret Beckett, a serving UK Foreign Secretary, titled 'A World Free of Nuclear Weapons?', to the Carnegie International Non-proliferation Conference in Washington, D.C., was very significant.⁴¹ Margaret Beckett began the speech:

³⁹ For a good overview of how the UK perceives its nuclear responsibilities see: Cervasio, C., 2021: [Exploring the United Kingdom's Nuclear Responsibilities](#) published by BASIC and ICCS

⁴⁰ [Malcolm Chalmers](#)--RUSI

⁴¹ [Remarks by Margaret Beckett, Secretary of State for Foreign and Commonwealth Affairs, United Kingdom Carnegie International Non-proliferation Conference June 25, 2007](#)

what that *Wall Street Journal* article, and for that matter Kofi Annan [UNSG],⁴² have been quite right to identify is that our efforts on non-proliferation will be dangerously undermined if others believe - however unfairly - that the terms of the grand bargain have changed, that the nuclear weapon states have abandoned any commitment to disarmament.

In this speech, we saw the first mention of possible work with other P-5 states on disarmament:

If we are serious about complete nuclear disarmament, we should begin now to build deeper relationships on disarmament between nuclear weapons states. For our part, the UK is ready and willing to engage with other members of the P-5 on transparency and confidence building measures (Beckett, 2007)

Professor Chalmers told me about the response to the speech:

Sam Nunn was there and said “this is transformative this is exactly what we need”..... it marked a sense of increased urgency for this agenda, which I would say informed the Obama speech. I think the UK initiative added to that momentum (Interview: 17 October 2023)

The UK was the United States' closest ally, a relationship underwritten by the U.S.-UK Mutual Defence Agreement (1958). That a serving UK foreign secretary was endorsing the “Towards a world free of Nuclear Weapons” agenda, according to one U.S. interviewee, “helped enormously in calming nerves [about the policy] on The Hill.” Dame Mariot Leslie, who was then Director General of Defence and Intelligence in the UK Foreign & Commonwealth Office told me:

So what I was trying to do was to create a package that was consistent with British Government policy and the UK's long-term interest – i.e. that was trying to prop-up the NPT as the normative basis for the whole world to decide and manage these things, that would reduce proliferation or hold down proliferation as far as possible, and that would build a new multinational consensus across the whole of the UN community. (Interview: 9 November 2023)

4.5. *The Browne Speech in Geneva*

Margaret Beckett was replaced by David Miliband as Foreign Secretary in June 2007 when Gordon Brown became Prime Minister. After the Trident vote and the change of leadership, there was then a desire that there was no backtracking on the ‘world free of nuclear weapons’ ambition outlined in Beckett’s Carnegie address. Lord Browne told me:

⁴² Address by Kofi Annan, UN Secretary-General: ‘[Nuclear Weapons the Greatest Danger of All](#)’ at Princeton University, 28 November 2006.

Yet, as with Prague and *WSJ*, we see how agendas overlap and, to some extent, become confused or, at least, conflated.⁴³ It is, therefore, appropriate to analyse the original text for what was and what was not in the Geneva speech of Des Browne:

On January 4 2007, George Shultz, Bill Perry, Henry Kissinger, and Sam Nunn published a op-ed titled "[A World Free of Nuclear Weapons](#)". On 25th June, two days before Gordon Brown became Prime Minister, Margaret Beckett, the then Foreign Secretary delivered a speech at the Carnegie Endowment for International Peace in Washington DC also titled "[A World Free of Nuclear Weapons](#)". It was logical that we, as a government wanted to signal that, from a Defence perspective, we supported Margaret's Carnegie address. I, as Secretary of State for Defence, wanted to do this to show, as it were, that there was a hard-nosed kind of element to this and that the military supported it, which it did. The best place to deliver a complementary speech was somewhere that would get a lot of attention. We chose the Conference on Disarmament,⁴⁴ as I understood that no Defence Minister had ever spoken there,⁴⁵ so I went.⁴⁶ (Interview: 21 November 2023)

Browne Conference on Disarmament Address (2008)	
WSJ language 'A world free of nuclear weapons'	'The UK has a vision for a world free of nuclear weapons' (page 2)
Nuclear security	'The proliferation of nuclear material, technology and know-how and weapons represents a grave threat to international security' (page 2)
Multilateral nuclear disarmament	'international community needs a transparent, sustainable and credible plan for multilateral nuclear disarmament' (page 3)
Non-proliferation	'must be resolute in tackling proliferation challenges' (page 4)
'enrichment bond'	'assistance is granted in return for a demonstrable commitment to non-proliferation' (page 4)
CTBT	'strive for early entry into force of CTBT' (page 5)
FMCT	'the fissile material cut-off treaty is a high priority for the United Kingdom' (page 5)
'Outer space'	'start negotiations on a new legal instrument.'(page 5)
'Verification'	'I, too, want the United Kingdom to be seen as a 'disarmament laboratory'. 'United Kingdom is willing to host a technical conference of P-5 nuclear laboratories on.. verification.' (pages 6- 7)
'Confidence-building'	'we also hope to engage with other P-5 States in other confidence-building measures' (page 7)

4.6. Table 22. Textual analysis of the Des Browne speech in Geneva (2008)

Several of these proposals or goals had been part of established UK foreign and security policy for some time. Still, the two new proposals on 'verification', proposing a conference between P-5 laboratories, and the 'confidence-building' engagement between P-5 States

⁴³ Acton, J. 2008. '[Browne on Disarmament](#)' published on the Arms Control Wonk web-site

⁴⁴ [Conference on Disarmament – UNODA](#)

⁴⁵ UK Foreign Minister James Cleverly [addressed the Conference on Disarmament](#) on the UK Integrated Review on 26 March 2021

⁴⁶ [A disarming proposal | Des Browne | The Guardian](#)

were new. To contrast the content of the Brown, CD speech (2008) with the Carnegie speech of Beckett (2007):

Beckett Carnegie address (2007)	
Iran and non-proliferation (also North Korea and Al Qaeda)	'Sadly, Iran has chosen not to comply with its international obligations. The U.S. contribution on Iran has, naturally, been critical.'
WSJ language 'A world free of nuclear weapons'	'The [WSJ] article...was to re-ignite the vision of a world free of nuclear weapons and to redouble our effort on the practical measures towards it'
A secure and predictable global context	[Disarmament] 'will require more disarmament diplomacy, convoluted enough that is in itself. It would require a more secure and predictable global context'
CTBT and FMCT	'We need to press on with both the Comprehensive Test Ban Treaty and the Fissile Material Cut-Off Treaty. Noth limit in real practical ways the ability of states party to develop new weapons'
Including UK nuclear weapons in global nuclear deal	'when it will be useful to include in any negotiations the one per cent of the world's nuclear weapons that belong to the UK, we will willingly do so'
P-5 engagement and confidence building measures	'The UK is ready and willing to engage with other members of the P-5 on transparency and confidence-building measures. Verification will be key.'
UK a 'disarmament laboratory'	'when it comes to this new impetus for global nuclear disarmament, I want the UK to be at the forefront...the International Institute of Strategic Studies is planning an in-depth study to determine the requirements for the eventual elimination of nuclear weapons' ⁴⁷
Authentication	'confirming an object presented for dismantlement is a warhead is indeed and warhead...and then looking more closely at chain of custody ⁴⁸ issues..we are developing technical contacts with Norway ⁴⁹ in this area'
Middle East Nuclear Weapons Free Zone (MENFZ)	'the international community's clear commitment to a MENFZ in successive UN resolutions has been vital for building a tough line against Iran'

4.7. Table 23. Textual analysis of the Margaret Beckett speech in Washington

The textual analysis above demonstrates that there was less overlap between the Beckett and Browne speeches than is currently observed in the literature, reflecting shifts in policy

⁴⁷ It has not been possible to identify this report by the IISS, although Foreign Secretary David Miliband did launch his report, *Lifting the Nuclear Shadow*, which outlined six steps toward achieving a nuclear-free world at the IISS on 4 February 2009. The report states about the IISS '*To promote independent analysis of the key issues, the UK Government supported work at the International Institute for Strategic Studies leading to the recent publication of an in-depth study of the political and technical requirements for abolishing nuclear weapons which makes a substantial contribution to the debate. We are carefully considering its recommendations*' (2009:44), suggesting the report had been published by February 2009.

⁴⁸ 'providing confidence that items that emerge from the disarmament process have indeed come from the authenticated object and that dismantled components of a dismantled nuclear warhead are not being returned to use in new warheads' (Beckett, 2007).

⁴⁹ [UK-Norway Initiative](#)

thinking within government. Taking this analysis one step further, we overlay it against Prague: Of the twenty-eight areas listed above, the U.S. and UK agree in eight and partially agree in two. However, the purpose of the table is to illustrate that the UK/P-5 process, and the Prague Agenda were quite different, reflecting their respective antecedence.

U.S. Obama/ nuclear weapons (7 initiatives)	U.S. Obama/ Nuclear non-proliferation (10 initiatives)	UK: Beckett/Browne additional proposals (5)
New START	CTBT ratification	P-5 process states and labs
START plus	FMCT	MENFZ
Reduce the salience of nuclear weapons	Secure nuclear materials in four years	Verification/authentication/ Irreversibility
North Korea international action	GICNT and PSI institution	Outer Space Treaty
Reconsider European missile defense	New Global Nuclear Security Summit	Confidence-building/ transparency/ predictability
Commitment to U.S. nuclear arsenal	NPT strengthened	Including UK nuclear weapons in global disarmament deal
Ambition: A world without nuclear weapons	NPT/IAEA extra resources and powers	UK a 'disarmament laboratory'
	NSG/G7/Zangger upgrade	Miliband 'Lifting the Nuclear Shadow' (2009) additional proposals
	Engage with Iran	U.S.-Russia substantial reductions in stockpiles
Nuclear power (1 initiative)	Expand cooperation with Russia	
International nuclear fuel bank		Brown 'The Road to 2010' (2009) additional proposals
		Expanded role for nuclear power in tackling climate change
		Nuclear security (fourth pillar)

4.8. Table 24. Obama (Prague) v Beckett and Browne (speeches) and Miliband and Brown (papers)

By analysing the text of the two speeches delivered eight months apart, we see some subtle shifts. First, the purpose of the P-5 engagement was 'confidence-building', not 'disarmament'.⁵⁰ Beckett's speech recognised that disarmament would require a secure and predictable global context, and therefore, 'confidence-building' was a necessary precursor to building trust. This approach was like that adopted under the Trump administration 2017 for 'Creating the Environment for Nuclear Disarmament' (Roberts, 2019).

⁵⁰ Professor Malcolm Chalmers told me, "So the P-5 from a UK point of view was partly a way for the UK to be seen as out ahead on disarmament relative to other P-5 countries, ahead of the French and a little bit ahead of America" (Interview: 17 October 2023).

5. P-5 process ‘all things to all men’?

We are seeing the message being tailored to different audiences, with the message to the NPT RevCon 2010 audience being that the P-5 are taking their responsibilities on disarmament seriously, and within the P-5, suggesting a more modest agenda of building confidence between the state parties. One particular suggestion, which, in my reading of the literature, was new in 2007, is the suggestion that the UK would be prepared to include its nuclear arsenal in a global deal, though this wording was repeated by Prime Minister Gordon Brown in his speech on ‘Nuclear Energy and Proliferation’ at Lancaster House on 17 March 2009—a few weeks before President Obama’s Prague Speech. In the speech, he also made an Obama/Prague-style pledge:

[In the NPT] there are tough responsibilities to be discharged by nuclear weapons states. For as possessor states we cannot expect to successfully exercise moral and political leadership in preventing the proliferation of nuclear weapons if we ourselves do not demonstrate leadership on the question of disarmament of our weapons.⁵¹

The language around multilateral disarmament is much stronger than before, forming a kind of ‘muscular multilateralism’:⁵² a belief that NWS must become passionate about their responsibilities to disarm. It was much more aligned with the aims of the *WSJ* opinion piece of Schultz et al (2007). It was a clear call for work towards multilateral disarmament. As Des Browne had argued in his CD speech:

‘the elimination from national arsenals of nuclear weapons’ [in the NPT preamble] ‘is not some ‘get-out’ clause for the five recognised nuclear-weapon states....This is a joint commitment, and it is a joint responsibility (CD/PV.1087: 3).

This was followed up by UK Prime Minister Gordon Brown (2007-2010) in a speech in New Delhi on 21 January 2008:

I pledge that in the run-up to the Non-Proliferation Treaty in 2010, we will be at the forefront of the international campaign to accelerate disarmament amongst possessor states, to prevent proliferation to new states, and to ultimately achieve *a world that is free from nuclear weapons*⁵³ (*emphasis added*)

⁵¹ Press Notice: 10 Downing Street, 2009. [Speech on Nuclear Energy and Proliferation at Lancaster House by the Rt Hon Gordon Brown](#)—17 March 2009—accessed 27 December 2024

⁵² Margaret Beckett concluded her Carnegie speech: So my commitment to the vision of a *world free of nuclear weapons* is undimmed. And though we in this room may never reach the end of that road, we can take the first steps down it. For any generation, that would be a noble calling. For ours, it is a duty.

⁵³ ‘[Speech at the Chamber of Commerce in New Delhi](#)’ by Gordon Brown--21 January 2008—accessed via the Nuclear Information Service website—1 November 2024

5.1. *The British approach*

Mariot Leslie remarked that the 'P-5...was an attempt to bring together great powers because we still had influence that mattered in the world' (Interview: 9 November 2023). Lawrence Freedman observed, 'Britain would see itself as a facilitator, rather than a leader' in the nuclear order (2010: 320). In 1954, Lord Franks, the former diplomat and philosopher, remarked that 'it is part of the habit and furniture of our minds' that Britain should be a great power' (Martin and Garnett, 1997: 1).⁵⁴ As Kenneth Waltz observed, the style of the Foreign Office was:

To proceed by sidling movement rather than directly toward an object, to underplay one's hand, to dampen conflicts and deprecate dangers, to balance parties off against each other, to compromise rather than fight, to postpone decisions, to obscure issues rather than confront them and move as it were by elision from one position to another (1967: 7-8).⁵⁵

Of course, much has changed since then, but that sense of importance, that Britain matters, remains deep within the psyche, especially amongst the political, diplomatic, military, cultural and economic elites whose influence is most felt in shaping UK foreign policy.

5.2. *'Slow train coming'*

The first difference is in the time it takes to build support for an initiative when you are not in the U.S. The Prague speech in April 2009 would result in the Moscow Summit (July 2009), the special session of the UNSC and resolution 1887 (September 2009), the signing of New START (April 2010) and the first Nuclear Security Summit (April 2010)—all within one year. The modest (in comparison) P-5 proposals from the UK made in February 2008 did not materialise into a first meeting until September 2009. The second conference was not held until 2011. Des Browne told me after the CD speech in February 2008:

My speech at the Conference on Disarmament was delivered on the 5th of February 2008. Thereafter, the P-5 first met in London in September 2009 and has met regularly since then. (Interview: 21 November 2023)

There were many factors which contributed to the delay: the global financial crisis of September 2008 was pre-occupying the political and economic agenda; Des Browne was replaced by John Hutton as Secretary of State for Defence in October 2008, removing a key ministerial driving force behind the initiative; the U.S. were in the midst of a

⁵⁴ Martin, L. and Garnett, J.C., 1997. *British foreign policy*. A&C Black.

⁵⁵ Waltz, K.N., 1967. *Foreign policy and democratic politics: The American and British experience*. Little, Brown & Co, Boston

presidential election campaign (November 2008) and Dmitry Medvedev had just replaced Vladimir Putin as President of the Russian Federation (May 2008). This matters because no matter how hard brilliant officials work to prepare the script, they still require the actors to walk out on stage and deliver the lines for it to become a political reality.⁵⁶

5.3. Bringing the P-4 on board

However, the machinery of government was quietly working to bring the idea to fruition, and the person in charge of that work was Dame Mariot Leslie. The Foreign Office and Ministry of Defence, along with technical experts at the Atomic Weapons Establishment (AWE) at Aldermaston, had been aware of concerns amongst allies, especially in France and the U.S., around the Trident renewal debate in 2007 and fears that the UK could become a non-nuclear weapons state. The collapse of the Six-Party Talks on North Korean nuclear weapons added to the sense of a proliferation crisis. In addition, they were concerned about the acrimonious end to the 2005 NPT Review Conference and feared that the NPT itself may not survive another failure to reach an agreement in 2010. To avert failure in 2010, it would be necessary for the NWS to demonstrate that they were taking their Article VI responsibilities seriously. This would be contested, Dame Mariot Leslie told me in response to that question:

It wasn't particularly directed towards "how are we going to survive the 2010 NPT review conference?" although that was the subtext to it. It was more broadly, "how can we, in a world in which proliferation is becoming more of a concern and in which there was a lot more pressure on NWS from non-nuclear friends and allies, how are we collectively as five going to handle the international order?" (Interview: 9 November 2023)

The problem was that not every NWS viewed this in the same way. There was a spectrum of opinions among NWS, which is not always picked up in the literature and which would need to be addressed if the P-5 initiative was to materialise. Just as the UK was motivated by domestic debates surrounding the decision to renew Trident, other NWS had their own perspectives, which would need to be accounted for the stars to align.

5.3.1. The Russian Federation

In the case of Russia, those aims in respect of nuclear issues would include U.S. plans for missile defence systems in Poland and Czech Republic, which, along with the U.S. withdrawal from the ABM Treaty in 2002, they saw as potentially undermining their

⁵⁶ It can be argued that this works the other way round to: politicians will often use a public speech to drive the internal agenda of government and overcome obstacles.

“assured second strike” capability.⁵⁷ Sergei Lavrov, Russia’s foreign minister, regarded missile defence as a “red line”.⁵⁸

It was also a time of greater Russian assertiveness, illustrated by Vladimir Putin’s address at the Munich Security Conference (2007).⁵⁹ Concern surrounded plans for ‘permanent’ U.S. military bases in Romania and Bulgaria, which had led Vladimir Putin to suspend Russian participation in the Treaty on Conventional Forces in Europe (CFE) at an Extraordinary Meeting of the CFE in Vienna (June 2007). NATO had countered by insisting that Russia must first remove its military bases from Moldova and Georgia.⁶⁰ Additionally, Russian insecurity had been heightened by the fifth enlargement of NATO in 2004, which included six former states of the Soviet Union.⁶¹ As already mentioned George Perkovich, the great scholar of the nuclear order, noted, “The first principle is that strengthening the nuclear order will require bargaining” (2008: 17).⁶² And in this context the Russians had many things they wanted to ‘bargain’ and they would be likely to attend an event, but only if the United States were present. Dame Mariot Leslie told me:

I got to know my Russian opposite number quite well, to the point that I could pick up the phone and chat with him. They all agreed to come on board. It was a process of several months of personal engagement with them, backed up by Ministers speaking in support. (Interview: 9 November 2023)

5.3.2. *The United States*

The United States were, according to Mariot Leslie, ‘one of the most difficult P-5 states to get on board’.⁶³ This was not expanded upon in interviews nor in the literature, but I would suggest there are two possible reasons for this: First, the view that ‘leadership’

⁵⁷ [Vladimir Putin](#) said, “Look, we live in a world where security relies on nuclear capability. Russia is one of the largest nuclear powers. You may be aware, I have said it publicly, we are improving our attack systems as an answer to the United States building its missile defence system. Some of these systems have already been fielded, and some will be put into service in the coming months. I am talking about the Avangard system. Clearly, we have overtaken all our, so to speak, partners and competitors in this sphere, and this fact is acknowledged by the experts. No one has a high-precision hypersonic weapon” interview at the Valdai International Discussion Club, Sochi, 18 October 2018.

⁵⁸ Pikayev, A., 2009. Russia and missile defences. *Readings in European Security*, p.78.

⁵⁹ Vladimir Putin, “Today we are witnessing an almost uncontained hyper use of force – military force – in international relations, force that is plunging the world into an abyss of permanent conflicts. As a result we do not have sufficient strength to find a comprehensive solution to any one of these conflicts. Finding a political settlement also becomes impossible. We are seeing a greater and greater disdain for the basic principles of international law. And independent legal norms are, as a matter of fact, coming increasingly closer to one state’s legal system. One state and, of course, first and foremost the United States, has overstepped its national borders in every way....” [Munich Security Conference](#) 14 February 2007.

⁶⁰ OSCE—[Extraordinary Conference of the State Parties to the CFE Treaty](#), Vienna, 12-15 June 2007.

⁶¹ Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia (and Slovenia).

⁶² Perkovich, G., 2008. [Principles for Reforming the Nuclear Order](#). Security Studies Department (IFRI).

⁶³ Berger and Chalmers (2013) claim, ‘Russia and China were reportedly more reluctant to sign on to the P5 process’ (2013: 7).

in the INWO was something that the United States assumed in Washington DC, and there was, therefore an aversion to initiatives ‘not invented here’. Second, the U.S. had demonstrated that when it came to arms control, such as New START, this was a discussion to be initiated by the ‘two principals’ of the INWO—Russia and the U.S.

So, what were the reasons why the U.S. should agree to participate? First, the request came from the United States’ closest and most trusted ally in the INWO. Linked to this, the technical cooperation between the U.S. and the UK when it came to nuclear weapons was almost seamless, whether it was via the MDA or NATO.⁶⁴ At that time, the Atomic Weapons Establishment (AWE) was operated by a consortium of the UK MoD, SERCO and two U.S. companies—Lockheed Martin and Jacobs Engineering Group⁶⁵ and AWE cooperated with Los Alamos National Laboratory on testing. Up until June 2007, the U.S. still had 110 nuclear bombs located at RAF Lakenheath in Suffolk.⁶⁶ The UK had not yet signed up fully to the Trident renewal, so the U.S. was interested in maintaining good relations with the UK. The 2010 UK National Security Strategy stated: ‘Our strong defence, security and intelligence relationship with the U.S. is exceptionally close and central to our national interest’ (Cabinet Office, 2010: 22)⁶⁷

The tipping point was China’s potential participation. The United States and Russia had long wanted to discover more about the China’s notoriously opaque nuclear weapons programme, not simply out of curiosity but because of its bearing on calculations of future strategic arms negotiations (Arbatov 2008: 10).⁶⁸ Mariot Leslie told me, “I think that is pretty much the way we brought the Americans on board. I got them to say we don’t think you can ‘pull-off’ the Chinese, but if you can, then we are on” (Interview 9 November 2023).⁶⁹

⁶⁴ Harris, R., 2002. The state of the special relationship. *Policy Review*, (113), p.29.

⁶⁵ Jacobs Engineering Group (based in Dallas, Texas) acquired shares of BNFL in December 2008.

⁶⁶ BBC News Report—‘[US Nuclear Weapons Withdrawn from Base](#)’ published 27 June 2008

⁶⁷ Cabinet Office, 2010. *A strong Britain in an age of uncertainty: the national security strategy* (Vol. 7953). The Stationery Office.

⁶⁸ Li Bin, 2011. ‘[China’s Potential to Contribute to Multilateral Nuclear Disarmament](#)’, Arms Control Today, March 2011.

⁶⁹ Additional context in correspondence: ‘*The attraction for the Americans, in my view, was the general one of potentially engaging the Chinese – at all - in a P5 multilateral nuclear arms control process, from which other productive but not yet specified nuclear cooperation might flow if this initiative proved successful*’ (3 April 2025)

5.3.3. The People's Republic of China

There were reasons to be hopeful that this may be possible. First, there was a long history of dialogues between the U.S. and China,⁷⁰ at one stage also involving lab-lab exchanges.⁷¹ China was emerging onto the world stage: a member of the WTO since 2001 and host of the Beijing Olympics in 2008. It established the Shanghai Cooperation Organisation in 2001, which now includes two UNSC permanent members (China and Russia) and four nuclear weapons states (China, Russia, India⁷² and Pakistan).⁷³ China joined the Nuclear Suppliers Group (NSG) in 2004. It had played an 'important and positive role' role in the Six-Party Talks over the North Korean nuclear programme⁷⁴ between 2003 and 2008.⁷⁵ According to Horowitz and Ye, "China would probably prefer that the North rely on China's external support rather than on a potentially destabilizing nuclear deterrent" (2006: 75).⁷⁶ This is confirmed by one interviewee familiar track 2 process told me:

[W]hen I talked to the Chinese in my last track 2 dialogue in Beijing, I was told the Chinese would greatly prefer the Koreans and Japanese having their own nuclear weapons. That would separate the two issues between the alliance and the U.S. and make the issues much more clear and transparent

⁷⁰ Roberts, B., 2021. [Taking stock: US-China track 1.5 nuclear dialogue](#). *Center for Global Security Research* in Yao Yunzhu, *Taking Stock: The Past, Present, and Future of U.S.-China Nuclear Dialogue*. Yao notes that the dialogue was replaced with a Track 1.5 dialogue, the "U.S.-China Conference on Arms Control, Disarmament, and Non-proliferation," sponsored by the U.S. Department of State, continued from 1998 to 2016 at the Middlebury Institute of International Studies in Monterey....two Track 1.5 dialogue mechanisms stood out as the most successful. These were the China-U.S. Dialogue on Strategic Nuclear Dynamics held in Beijing (the Beijing dialogue) and the U.S.-China Strategic Dialogue in Hawaii (the Hawaiian dialogue). These were terminated formally in March 2020 by the Defense Threat Reduction Agency (DTRA), their primary sponsor on the U.S. side (page 7)

⁷¹ During the Clinton administration in 1994 'US-China Lab-to-Lab Technical Exchange Program' (CLL) was agreed between the two countries. The proposal was in many ways 'ahead of its time' according to Nancy Prindle of Sandia Laboratory in the U.S: the compelling motivation for the CLL outweighed these risks, as the United States and China each recognized that the unique professional relationships their nuclear scientists fostered through the CLL would provide a vehicle for increasing trust and developing common approaches on issues of concern to national and international security (Prindle, 1998: 111)The initiative did not last long and was halted in 1998 following the publication of the Cox Report⁷¹ which accused the Chinese of 'technology theft' (Roberts eds., 2020: 7).⁷¹

⁷² India and Pakistan became members of the SCO in 2017, they had been dialogue partners since 2005.

⁷³ For a comprehensive coverage of the security dimension of the SCO see: Bailes, A.J., Dunay, P., Guang, P. and Troitskiy, M., 2007. *The Shanghai cooperation organization* (Vol. 17). Stockholm: Stockholm International Peace Research Institute.

⁷⁴ China had initially brokered talks between the U.S. and North Korea following North Korea's withdrawal from the NPT in 2003. Of course, China has a strong interest in sustaining the North Korean regime, which it does primarily through economic means.

⁷⁵ Christensen, T.J., 2015. *The China Challenge: Shaping the Choices of a Rising Power*. Princeton University Press.

⁷⁶ Horowitz, S. and Ye, M., 2006. China's Grand Strategy, the Korean Nuclear Crisis, and the Six-Party Talks. *Pacific Focus*, 21(2), pp.45-79.

view: 7 November 2023)

China also aspired to be seen as a “responsible great power”⁷⁷ and it may have felt that in the context of the P-5 it may achieve a certain ‘moral high ground’: ‘China is the only nuclear weapon state to have maintained an unconditional NFU [No First Use] pledge since testing a nuclear weapon in 1964’ and ‘This pledge represents the cornerstone of Chinese nuclear restraint claims’ (Leveringhaus and De Estrada 2018). Moreover, ‘Since the mid-1990s, Chinese diplomats had been lobbying nuclear institutions such as the United Nations Institute for Disarmament Research (UNIDR) to promote an international NFU treaty’ (Leveringhaus and De Estrada 2018: 495). They were in good company as far as this study was concerned as Hedley Bull was a strong advocate of a ‘No-first Use’ policy for NATO, which drew much criticism at the time.⁷⁸ India has also supported this proposal for an NFU treaty.⁷⁹ For these reasons, Major General Pan Zhenqiang (Retired) argued that the Chinese nuclear capability differs from the West in that it is not a ‘political’ tool to project status, control actions of others, or to act as ‘trip-wire’ against Russia in Europe:

China makes none of these calculations and shares none of these objectives in its nuclear strategy. In this sense, it can be argued that China is not a nuclear weapon state in the traditional Western sense.⁸⁰

Against this backdrop, the round of patient diplomacy by the UK to bring China on board began, Mariot Leslie recalls:

I did that by enlarging the strategic agenda with them [China], and David Miliband was very interested and helpful in that. So David Miliband held talks with his Chinese opposite number [Yang Jiechi, 28 February 2008⁸¹].in which he was talking about a whole range of things, from climate change to economic management to international development and so on, and that provided a very useful context for me to pursue this strategic agenda. (Interview—9 November 2023)

⁷⁷ Bao-jun, L. and Zheng-yuan, X., 2006. China’s self-identity construction as a responsible power in the post-cold war era. *Teaching and Research*, (1), p.49.

⁷⁸ O’Neill, R., 2008. *Hedley Bull and Arms Control* (Vol. 170, p. 35). ANU Press.

⁷⁹ Tannenwald, N., 2019. It’s Time for a US No-First-Use Nuclear Policy Texas National Security Review: Volume 2, Issue 3 (May 2019).

⁸⁰ Zhenqiang, P. 2010. Chapter-China’s Nuclear Strategy in a Changing World Strategic Situation, in Blechman, B.M. and Bollfrass, A.K. eds., 2010. *National perspectives on nuclear disarmament*. Henry L. Stimson Center (pp. 13-14).

⁸¹ Chinese MOFA ‘[Yang Jeichi Holds talks with British Counterpart](#)’ 28 February 2008 report includes reference to ‘promoting more effective non-proliferation’

5.3.4. France

That left *France* as a key partner to agree to the initiative. UK-France nuclear cooperation had a long history, but not as long as their political and diplomatic rivalry:⁸²

The arguments for the retention of an effective strategic nuclear capability were couched in terms of international prestige, with the loss of a considerable amount of influence should the UK relinquish its deterrent and leave France as the only nuclear weapons state in Western Europe⁸³

The nuclear relationship between the U.S. and France had become strained when General de Gaulle rejected the offer of Trident II from the U.S. and further when France would withdraw from NATO's military structures in 1966⁸⁴ and refused to sign the NPT in 1968.⁸⁵ According to Sagan, 'For de Gaulle, the atomic bomb was a dramatic symbol of French independence and was thus needed for France to continue to be seen, by itself and others, as a great power'.⁸⁶ After the end of the Cold War, the relationship changed significantly. France became a signatory of the NPT (1992) and established the Anglo-French Joint Nuclear Commission (1992). This was then developed more broadly into Common Foreign and Security Policy (FSP) through the Anglo-French Saint-Malo Summit (1998).⁸⁷

France's position also shifted again in March 2008 with a speech by then-President Nicolas Sarkozy, who prioritised in his 2008 speech at Cherbourg the need for greater military transparency. He announced that France would be reducing its nuclear warheads by one third and added, "I have also decided that France could and should be more

⁸² Sir Michael Quinlan, a former Permanent Secretary at the British MoD and one of world's foremost experts on nuclear deterrence theory was asked in one appearance before the House of Commons Select Committee on Defence what would be the consequences if Britain abandoned its nuclear deterrent and France retained theirs, he reflected, "It would be very difficult...I think it is just a national gut feeling...I think it would twitch a lot of very fundamental historical nerves"; House of Commons Library, 2020. Briefing Paper (No. 4079): [The French Nuclear Deterrent](#) by Claire Mills published 20 November 2020

⁸³ Baylis, J. and Stoddart, K., 2012. The British nuclear experience: The role of ideas and beliefs (Part One). *Diplomacy & Statecraft*, 23(2), pp.331-346.

⁸⁴ CVCE. [Franco-British Diplomatic Games and Issues within the WEU \(1954-1982\)](#) accessed 23 December 2024

⁸⁵ Debouzy, O. and Royal united services institute for defence studies (GB)., 1991. *Anglo-French Nuclear Cooperation: Perspectives and Problems*. Royal United Services Institute for Defence Studies.

⁸⁶ Sagan, S.D., 1996. Why do states build nuclear weapons?: Three models in search of a bomb. *International security*, 21(3), pp.54-86.

⁸⁷ Shearer, A., 2000. Britain, France and the Saint-Malo declaration: Tactical rapprochement or strategic entente?. *Cambridge Review of International Affairs*, 13(2), pp.283-298.

transparent with respect to its nuclear arsenal than anyone ever has been.”⁸⁸ When the P-5 process began, France would take the lead on the ‘transparency’ track.

5.4. Patient diplomacy--building momentum

On the 4th of February 2009, UK Foreign Secretary David Miliband published a report, *Lifting the Nuclear Shadow: Creating the Conditions for Abolishing Nuclear Weapons*.⁸⁹ In his introduction, David Miliband states: “The Prime Minister, President Obama and many other leading figures, across party political divides, have called for action to build a more secure world, free of all nuclear weapons” (2009: 3). The report made six recommendations⁹⁰ which closely resembled the Prague Agenda that Obama would outline two months later.⁹¹ In respect of the proposal for a ‘P-5 process’, the proposal was somewhat downplayed, being restricted to two paragraphs on page 43 of the document:

A sustained strategic dialogue, particularly between the five Nuclear Weapon States and drawing in others, including the non-parties to the NPT, is vital to building trust and understanding.

What is interesting is that the P-5 proposal was not listed as one of the original ‘six concrete steps’ of the document set out on pages 51 and 52, but by the time it came to the public launch of the document, David Miliband had included it in his speech, in place of ‘verification and irreversibility’ as the sixth step:

Beginning a strategic dialogue between the five nuclear weapon states – the U.S., Russia, China, Britain and France – to lay the groundwork for the ultimate elimination of all arsenals and measures to prevent the re-emergence of nuclear weapons.⁹²

The UK had also been advocating technical cooperation on disarmament verification. They had proposed cooperation at the 2005 NPT RevCon, and in 2007, representatives from four Norwegian laboratories met with representatives from the UK MoD, AWE, and the British NGO VERTIC. Norway was interested in exploring how NNWS could play a

⁸⁸ France diplomatie, 2008. ‘[Speech by Nicolas Sarkozy, President of the French Republic, Presentation of Le Terrible in Cherbourg](#)’, 21 March 2008

⁸⁹ House of Lords, 2010. Library Note—[Debate on 21 January 2010: Prospects for Nuclear Disarmament and Strengthening Non-proliferation](#) by Matthew Purvis published 15 January 2010 (LLN 2010/002)

⁹⁰ (i) non-proliferation and strengthening the NPT (ii) working with the IAEA help states access nuclear materials for peaceful uses (iii) U.S.-Russia leadership on substantial reductions in nuclear arsenals (iv) CTBT into force (v) FMCT (vi) verification and irreversibility (2009: 51-52).

⁹¹ Foreign and Commonwealth Office, 2009. [Lifting the Nuclear Shadow: Creating the Conditions for Abolishing Nuclear Weapons](#) by David Miliband published 4 February 2009.

⁹² Foreign Secretary David Miliband did launch his report: *Lifting the Nuclear Shadow* which outlined [six steps toward achieving a nuclear-free world at the IISS](#) Guardian newspaper report 4 February 2009

constructive role in nuclear disarmament verification. The UK was very keen to promote the verification agenda through the P-5.

The final piece of the preparatory jigsaw was in July 2009, when Prime Minister Gordon Brown published *The Road to 2010: Addressing the Nuclear Question in the Twenty—First Century*. The document was interesting as it proposed several innovative ideas and actions. First, it proposed hosting the ‘P-5 process’ meeting in London between 3 and 4 September 2009.⁹³ Second, to make ‘nuclear security’ the ‘fourth pillar’ of the global nuclear regime—bringing it into line with the U.S. aims of the Prague Agenda. Third, to ‘work with Russia’ toward establishing a Middle East Weapons of Mass Destruction Free Zone (2009: 50).⁹⁴

5.5. Part of the Prague Agenda?

This leads to an important question which it is appropriate to deal with at this point: Was the P-5 process part of the Prague Agenda? The easiest way to answer this question is to look at what the White House believed the Prague Agenda to be to look at the Fact Sheet produced by the White House to review the success of the Prague Agenda between 2009-2017.⁹⁵ In the report we see extensive coverage of: Nuclear Security Summits; the Nuclear Posture Review; the JCPoA; New START and the Proliferation Security Initiative but the P-5 process doesn’t even get a mention as a footnote. So, it would be fair to say that the U.S. did not regard the initiatives to be linked to the Prague Agenda. However, had it not been for the Prague Agenda then it is unlikely the process would have started.

6. The first meeting of the P-5 process—London

The first meeting of the P-5 process took place in the Locarno Suite at the Foreign & Commonwealth Office, London. It is a grand suite of rooms designed by the great Victorian architect, George Gilbert Scott. The rooms were named after the Locarno treaties (1925), which were negotiated in Switzerland but signed in London. The treaties dealt with outstanding issues relating to European borders and heralded a short period of détente, between the world wars which was known as a ‘spirit of Locarno.’ The historian A.J.P Taylor said, “Its signature ended the first World War; its repudiation eleven

⁹³ *A P-5 Conference on Confidence Building Measures* 5.34: As announced by the Prime Minister in March 2009 the UK will host a conference of the recognised nuclear weapon states on 3-4 September 2009 to discuss confidence building measures required to enable further disarmament. The conference will examine the verification and compliance challenges associated with achieving further progress on nuclear weapons reductions and non proliferation, and the steps required to address those challenges (Cm. 7675, 2009: 37)

⁹⁴ *The Road to 2010: Addressing the nuclear question in the twenty-first century* (July, 2009) (Cm. 7675)

⁹⁵ Fact Sheet: [The Prague Nuclear Agenda](#)—published by The White House—11 January 2017

years later [the Nazi militarisation of the Rhineland, 1936] marked the prelude to the second.' (FCO, 1991: 9).⁹⁶ Appropriately, the ceiling Conference Room carries the Majolica plaques (national arms) of U.S.A, Russia, China and France (along with sixteen others, including the Papacy, Bavaria, Saxony and Prussia) (FCO, 1991: 8).

The objective of the meeting was set out as:

The P-5 states (China, France, Russia, UK and U.S.) met in London on 3-4 September for a conference on confidence building measures towards disarmament and non-proliferation issues.

Great care and attention had been made to the dynamics of the first meeting, as Dame

Mariot Leslie recalls:

We kept the numbers quite small...the two most senior civilians...principals [of each of the P-5] sat around the table and three more junior officials behind them...We built in longish coffee breaks into the agenda so people could talk to each other informally...we had a nice lunch.

In respect of the outcomes:

The British technical community [had suggested we build up a shared glossary...this was a really brilliant idea...we agreed this at the P-5 London meeting...the division of work was that the Chinese were given leadership on the glossary, we [UK] did verification and France had transparency....So I think everyone left the meeting enthused. Which was all we wanted to achieve after the first round.(Interview: 9 November 2023)

The final Joint Statement issued following the meeting gave a brief insight into what had been discussed:

In a wide-ranging discussion, the P-5 considered the confidence building, verification and compliance challenges associated with achieving further progress toward disarmament and non-proliferation, and steps to address those challenges. They looked at ways to increase mutual understanding by sharing definitions of nuclear terminology and information about their nuclear doctrines and capabilities. They made presentations on enhancing P-5 strategic stability and building mutual confidence through voluntary transparency and other measures. (KCL, NPT Briefing Book, 2022: E-1)

6.1. Transparency and Trust

Yet, there is a paradox at the heart of this question of confidence and security building and trust and that is that the P-5 process itself is one of the opaquest institutions of the INWO.⁹⁷ The P-5 criticized for being “secretive” and “unnecessarily opaque” (Hoell &

⁹⁶ Foreign & Commonwealth Office, 1991. [History Notes: Locarno 1925: The Treaty, the Spirit and the Suite](#), Issue 3 [October, 1991]

⁹⁷ Dee, M., 2024. Minilateralism and effective multilateralism in the global nuclear order. *Contemporary Security Policy*, 45(3), pp.494-524.

Persbo, 2020: 10). We know little about what is discussed in meetings, the communications tend to be limited to short statements by the host ministry of foreign affairs at the conclusion of meetings or statements submitted as part of the NPT Review Conference process. The host also produces a report to the Chairs of the NPT and the Conference on Disarmament and normally briefs the Non-proliferation and Disarmament Initiative (NPDI)⁹⁸ group (ELN, 2020: 8).⁹⁹ In terms of who attends the meetings, this is only rarely disclosed. The first-time conference attendees are referenced in P-5 official communications was at the P-5 Beijing Conference (February 2019).¹⁰⁰

7. The 2010-NPT Review Conference

The aim of 'enhanced transparency and confidence' was included in the list of actions for NWS to undertake. They are referred to under Action 5 (g) of the 64-point Action Plan, which was agreed at the NPT Review Conference in 2010 and states: [NWS should] 'Further enhance transparency and increase mutual confidence.'¹⁰¹ Further requirements on increasing transparency were also included in Action 20,¹⁰² which relates to all NPT state parties and Action 21, which specifically relates to NWS states:

⁹⁸ [NPDI Overview](#) by NTI

⁹⁹ NPDI members--Australia, Canada, Chile, Germany, Japan, Mexico, Netherlands, Nigeria, the Philippines, Poland, Turkey and the United Arab Emirates

¹⁰⁰ 'The conference was presided over by H.E. Mr. Zhang Jun, Assistant Minister of Foreign Affairs of China, Deputy Minister Sergey Ryabkov of Russia, Under Secretary of State Andrea Thompson of the United States, Director for Strategic Affairs, Security and Disarmament Mr. Nicolas Roche of France, Mr. Philip Barton, Director General for Consular and Security, Foreign and Commonwealth Office of the United Kingdom, Ambassador Wood, Ambassador Liddle, Ambassador Fu Cong, who is now Director General of the Department of Arms Control and Disarmament of the Chinese Foreign Ministry, and myself [Ambassador LI Song] participated in this conference', [NPT Briefing Book, 2022 \(updated\), KCL \(page E-7\)](#).

¹⁰¹ Action 5: The nuclear-weapon States commit to accelerate concrete progress on the steps leading to nuclear disarmament, contained in the Final Document of the 2000 Review Conference, in a way that promotes international stability, peace and undiminished and increased security. To that end, they are called upon to promptly engage with a view to, inter alia: (a) Rapidly moving towards an overall reduction in the global stockpile of all types of nuclear weapons, as identified in action 3; (b) Address the question of all nuclear weapons regardless of their type or their as an integral part of the general nuclear disarmament process; (c) To further diminish the role and significance of nuclear weapons in all military and security concepts, doctrines and policies; (d) Discuss policies that could prevent the use of nuclear weapons and eventually lead to their elimination, lessen the danger of nuclear war and contribute to the non-proliferation and disarmament of nuclear weapons; (e) Consider the legitimate interest of non-nuclear-weapon States in further reducing the operational status of nuclear weapons systems in ways that promote international stability and security; (f) Reduce the risk of accidental use of nuclear weapons; and (g) Further enhance transparency and increase mutual confidence. *The complete text of the Final Document is available at <http://www.reachingcriticalwill.org/legal/npt/revcon2010/FinalDocument.pdf>.

¹⁰² Action 20: States parties should submit regular reports, within the framework of the strengthened review process for the Treaty, on the implementation of the present action plan, as well as of article VI, paragraph 4 (c), of the 1995 decision entitled "Principles and objectives for nuclear non-proliferation and disarmament", and the practical steps agreed to in the Final Document of the 2000 Review Conference, and recalling the advisory opinion of the International Court of Justice of 8 July 1996.

Action 21: As a confidence-building measure, all the nuclear-weapon States are encouraged to agree as soon as possible on a standard reporting form and to determine appropriate reporting intervals for the purpose of voluntarily providing standard information without prejudice to national security. (NPT, 2010)

The NPT Action Plan Report 2015 prepared by U.S. NGO, Reaching Critical Will, reported that NWS had not yet complied with Action 5, noting:

While the NPT nuclear-armed states have met on a few occasions since the adoption of the Action Plan, the nature and scope of their discussions are either not reported on or have focused on items outside the scope of this action, such as a dictionary of nuclear terms or standard reporting forms (RCW, 2015: 11)¹⁰³

Regarding the online repository established by the UN to receive NWS reports on Action 5, 20, and 2010 of the NPT Review Conference, it is illuminating that in 2014, all five NWS in the P-5 complied and submitted reports; they all did this again in 2015, but only China and the UK submitted reports in 2019, and no further reports have been issued.¹⁰⁴ The underlying reason for this was a 'lack of consensus' about the content and frequency of reporting. Jonas Siegel in a CISSM Working Paper on nuclear transparency, concluded:

The failure of the P-5 states to agree on the detailed contents of a standard reporting form does not inspire confidence and might even draw unwanted attention to the inability or reticence of the weapons states to make tangible progress toward their disarmament commitments.¹⁰⁵

The P-5 did produce a 'Common Reporting Framework', which was presented to the NPT Preparatory Committee in 2014. Still, Section 1 on Disarmament does not mention a specific requirement to report on nuclear force levels.¹⁰⁶

This is important because transparency isn't just about confidence-building between the P-5 NWS but also about rebuilding confidence amongst NNWS in the NPT. In their last report, the UK government highlighted several initiatives which had been carried out in respect of the transparency and confidence building Action 5 (g) NPT, 2010. These included: discussions with other NWS and NNWS regarding strategic risk reduction; participating in the U.S. led CEND initiative; funding projects with British NGO, BASIC and the University of Birmingham on 'responsibilities of NWS'; hosting four workshops at Wilton Park; commissioning King's College London (KCL) to convene track 1.5 talks on

¹⁰³ [The NPT Action Plan Monitoring Report](#), March 2015 prepared by Reaching Critical Will and published in advance of the 2015 NPT Review Conference meetings. The NPT Review Conference failed to reach an agreement.

¹⁰⁴ [United Nations Repository of Information provided by Nuclear Weapons States](#) in respect of Action 21 of the 2010 NPT Review Conference Final Document—accessed 27 December 2024

¹⁰⁵ Siegel, J., 2015. *Expanding Nuclear Weapons State Transparency to Strengthen Nonproliferation*. Center for International & Security Studies, U. Maryland (p. 8)

¹⁰⁶ Berger, A., 2014. [The P-5 Nuclear Dialogue—Five Years On. occasional paper](#) (London: Royal United Services Institute, 2014). (Annex 1, 19-20).

the P-5 process and hosting a interactive workshop on the P-5 process facilitated by KCL and ELN. (UK Government, 2021: 14-16).¹⁰⁷

In respect of the other 2019 report by China, it begins with the statement:

China has shown maximum transparency in its nuclear strategy, maintained great restraint in the development of its nuclear force, and adopted an attitude of extreme caution regarding the use of nuclear weapons (4).¹⁰⁸

In relation to its work with the P-5 it states:

China attaches great importance to the cooperation mechanism among the five nuclear-weapon States and maintains dialogue and consultation with the other four nuclear-weapon States with regard to confidence-building measures and the implementation of the Non-Proliferation Treaty. China took over as coordinator of the cooperation mechanism in July 2018 and has worked hard to promote the revitalization of cooperation among the five nuclear-weapon States (29).¹⁰⁹

However, the Chinese report does differ in one very significant respect from that published by the UK and that was not even a hint as to the scale and composition of the Chinese nuclear weapons forces. The UK report details the Continuous at Sea Deterrence (CASD) and its nuclear warheads limit of 'no more than 260 warheads' (2021: 10-11).

According to Alexey Arbatov:

China apparently considers transparency to be an important bargaining chip....the United States might gain from transparency and limitations on China's nuclear and conventional land-based missiles—a significant concern for the United States in both the global and regional context (Arbatov, 2015: 8)¹¹⁰

One of the most objective and authoritative assessments of the P-5 process record on transparency was made by Dr Heather Williams¹¹¹ one of the foremost scholars on the INWO. In an address to the Conference on Disarmament in 2019 she was invited to set out how the P-5 had performed in respect of transparency, 'I suspect all five would argue that their nuclear doctrines are perfectly clear and that they are fully transparent; and yet misunderstanding persists on multiple fronts....and non-nuclear weapons states certainly expect more to done.'¹¹²

¹⁰⁷ UK Government, 2021. [National Report of the United Kingdom of Great Britain and Northern Ireland, pursuant to Actions 5,20 and 21 of the Treaty on the Non-Proliferation of Nuclear Weapons \(NPT\) Review Conference](#) published 1 November 2021

¹⁰⁸ China, 2019. '[Implementation of the Treaty on the Non-Proliferation of Nuclear Weapons in the People's Republic of China](#)'--NPT/CONF.2020/PC.III/8 published 29 April 2019 (p. 2).

¹⁰⁹ Ibid. p.7

¹¹⁰ Arbatov, A., 2015. [The P-5 Process: Prospects for Engagement](#), Deepcuts Working Paper, No 3, January 2015, published by the Institute for Peace Research and Security Policy, University of Hamburg

¹¹¹ [Dr Heather Williams](#), Director, Project on Nuclear Issues, CSIS

¹¹² Williams, H. 2019. [Conference on Disarmament \(CD/PV.1501\)](#) 22 May 2019 (pages 2-4) UN documents.

Dr Williams then went on to offer assessments on the performance of individual P-5 states in each category:

- In terms of **reporting**, I would argue that the United Kingdom actually provides the most in-depth reporting.... and allows opportunities to discuss its national reporting...
- In terms of **clarity of doctrine**, I would argue that the United States has the greatest level of detail about its declaratory policy.
- In terms of **arms control and confidence building measures** we need to seriously consider the ramifications of the breakdown in arms control agreements.
- In terms of **verification of disarmament**, the United Kingdom-Norway initiative has set an important precedent
- [I]n terms of **engagement with NGOs**...I have found the United States and United Kingdom to be extremely forthcoming.

8. P-5 process meetings and workstream

8.1. Confidence-building Measures

It is worth spending a few paragraphs exploring what confidence-building means in a P-5 and INWO context. Holst suggests the following definition:

Confidence-building measures (CBM) may be defined as arrangements designed to enhance such assurance of mind and belief in the trustworthiness of states and the facts they create (Holst, 1983: 2)¹¹³

This would be in line with Bull's definition of an international society, one which is underpinned by certain universal values, life, truth and property (1975: 5). However, this is problematic when it comes to the INWO because deterrence can also mean the concealment or distortion of certain facts. The current nuclear postures of the U.S. and the UK are founded on a 'calculated ambiguity' intended to create uncertainty in the minds of adversaries regarding the circumstances in which they may be used and ruling out No First Use (NFU). Meanwhile, China's ambiguity is not its declaratory policy,¹¹⁴ which is NFU, but rather the concealment of the scale of its nuclear capability. Israel refuses to confirm whether it has nuclear weapons, a policy known as 'Amimut'.¹¹⁵ India

¹¹³ Holst, J.J.R., 1983. Confidence-building measures a conceptual framework. *Survival*, 25(1), p 2.

¹¹⁴ 'Declaratory policy forms part of the signalling that is the essence of nuclear deterrence. But military planners are keen to maintain ambiguity...Postures therefore often refer to vague ideas such as vital interests and avoid specifics....excessive ambiguity in declaratory policy...harms disarmament diplomacy' NTI, [Discussion Paper, 2019. Nuclear Doctrine](#) by Paul Ingram, published January 2019

¹¹⁵ Kristensen, H., and Korda, M., 2022. [Nuclear Notebook: Israeli Nuclear Weapons](#), published by the Bulletin of Atomic Scientists, 17 January 2022

has an NFU policy (since 2003), and, like China, it does not declare the strength and nature of its nuclear forces.¹¹⁶ The Soviet Union had a policy of NFU (1982-1993), but Russia changed this to one of strategic ambiguity.¹¹⁷

8.2. Inside the room

During my research, I had an opportunity to interview several diplomats and officials who had attended P5 meetings.¹¹⁸ From those interviews, it is possible to construct a picture of the P-5 process from inside the room.

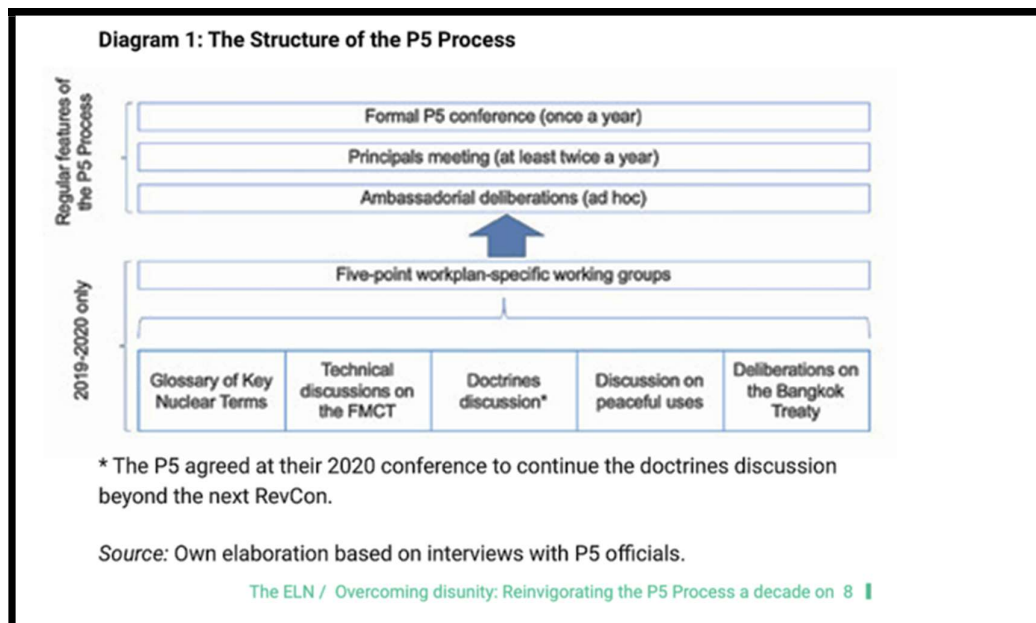


Illustration 16. Structure of the p-5 process (ELN)

Structure: It is a loose arrangement. There is no secretariat. There are no rules of procedure. The agenda is anchored in the NPT review cycle, reflecting and responding to emerging themes at PrepComs. When ambassadors meet in the margins of other meetings, the discussion is conducted in English; however, interpreters will be provided at the conferences. The ad hoc meetings will generally be in the afternoon, followed by dinner. The conferences are typically two days, preceded by dinner. The coordination rotates within the cycle between the five states, with support provided by the Ministry of

¹¹⁶ 'Collecting and analyzing accurate information about India's nuclear forces is a more challenging effort than for many other nuclear-armed states. India has never disclosed the size of its nuclear stockpile, and Indian officials do not regularly comment on the capabilities of the country's nuclear arsenal'. Kristensen, H.M., Korda, M., Johns, E. and Knight, M., 2024. Indian nuclear weapons, 2024. Bulletin of the Atomic Scientists, 80(5), pp.326-342.

¹¹⁷ Costlow, M. 2021. [Believe it or Not: U.S. Nuclear Declaratory Policy and Calculated Ambiguity](#) published by War on the Rocks, 9 August, 2010.

¹¹⁸ All the officials interviewed were from the UK and U.S., which would explain the understandable bias in the most subjective comments on participation and approaches.

Foreign Affairs Chair if required. Most participants will have bilateral meetings with other states in the margins of meetings and conferences, and space is available for this to happen.

Attendance: For conferences, it is the 'Principal' level, normally 2*-3* level, which in the U.S. is Under-Secretary of State level. For China, it would be the DG from the Arms Control Department. For the UK, it is the Director Generals from FCDO and MoD. By tradition, the organisation and agenda are developed by the Permanent Representatives to the Conference on Disarmament in Geneva. For ad hoc meetings, there may be 2-3 attendees from each side. For conferences, that would increase to around ten.

Outputs: There will be presentations and updates on the working group's progress. There are five working groups: Glossary, FMCT, Doctrines, Peaceful uses, and the Bangkok Treaty. The UK and U.S. tend to be the most active in making presentations. The UK and China have tended to be the most active in organising working groups. France and Russia tend to be more observers than initiators. Some WGs are more active than others, e.g. the Glossary and Doctrines, so not all groups report at each meeting. There is an effort made to keep a free-flowing discussion going. The Geneva Perm. Reps. (CD) usually do the main negotiation work in agreeing on the communique. Strong disagreements are rare¹¹⁹ because mutual positions are understood and tend to be accommodated in pursuit of agreement.¹²⁰ Members are conscious of the need to retain the confidence of the NNWS in the process.

8.3. Working Groups.

Rather than systematically going through the five working groups (see Diagram 1), I have chosen the Glossary and Nuclear Doctrines as the two most active to review their deliberations in more detail:

¹¹⁹ Dame Mariot recalled from the first meeting of the P-5: 'We constructed an agenda that wasn't immediately focused on the NPT review conference...For ourselves, for the French and for the Americans—we had pre-cooked this with them—none of us was going to say anything that our countries had not already said in public. And we weren't going to ask the Russians and Chinese to say anything that was different...The three Western nuclear powers had all made public statements about [nuclear] doctrine....but the Chinese, in particular, had had very little to say in public, whereas Russia had said a lot. So it put the Chinese on the spot*, but the meeting was very kind to them. I was chairing it. Everybody had to feel comfortable.' (Interview: 9 November 2023); * *'what I was trying to say – ie that the Chinese had up to that point given very little public explanation of their nuclear doctrine, so having to talk about it to foreign interlocutors even in the confidential setting of this P5 meeting was unfamiliar and challenging for them -ie it "put them on the spot"'* (Correspondence: 3 April 2025).

¹²⁰ Deputy Foreign Minister of the Russian Federation said in 2021, 'After the events of 2014 the public part of the P-5 conference was used for propaganda unrelated to its scope of reference'.¹²⁰

8.4. The P-5 Glossary

The 'signature' output of the P-5 process was the 'P-5 Glossary of Key Nuclear Terms' (2015). The idea for a Glossary of standard nuclear terms had come from the 'British technical community' (Interview: Dame Mariot Leslie)¹²¹ The purpose of the Glossary was given in the Foreword to the Glossary¹²² as:

The process of developing this Glossary was intended to increase mutual understanding and confidence among the P-5 and facilitate discussions with NNWS.

It, therefore, took six years to agree on the 253-page document dealing with 227 terms. This time is long, especially given that there already existed a Chinese English Nuclear Security Glossary of 1000 terms produced by Chinese and American scientists,¹²³ published in 2008.¹²⁴ The Glossary was presented at the NPT Review Conference 2015 as an example of the P-5's implementation of 'Action 5' of the NPT 2010 Final Document to 'further enhance transparency and increase confidence'. Opinion on the Glossary was mixed: Isabelle Williams of the NTI told me:

. "The emphasis on the glossary by the Chinese and the P5, I think was disappointing to some non-nuclear weapon states and civil society who were expecting more from the P5 process.... but the value in the glossary wasn't limited to the output, it was also in the conversations that happened among the officials." (Interview: 6 September 2023)

Rose Gottemoeller saw it slightly differently:

the glossary project is one that gets very maligned by the enemies of the P-5. But I always argue that it was something the Chinese were willing to engage in. Very important to sit and talk together about different nuclear terminology, different both technical terminology, but also policy terminology, because having agreed definitions is always the foundation stone for a nuclear treaty negotiation (Interview: 12 September 2023)

What is not clear from the reception of the Glossary at the NPT Review Conference in 2015 is in what ways it facilitated dialogue with NNWSs. Though the P-5 statement to the NPT RevCon states that:

The P5 intend to revise and update the Glossary as appropriate in due course. Also in this regard, we have increased our engagement with the wider

¹²¹ FCO, Alistair Burt MP, Parliamentary Under-Secretary of State, 2013: [Written Ministerial Statement: P5 Conference on Nuclear Disarmament and Non-proliferation](#), 21 May 2013

¹²² 'P5 Glossary of Key Nuclear Terms' (2015) published by China Atomic Energy Press—copy accessed from U.S. State Department web-site

¹²³ National Research Council. 2008. English-Chinese, [Chinese-English Nuclear Security Glossary](#). Washington, DC: The National Academies Press.

¹²⁴ Pregoner, A.L., 2011. Technical cooperation on nuclear security between the United States and China: review of the past and opportunities for the future published by Sandia National Laboratories

disarmament community, including by meeting with non-nuclear weapon states as part of the most recent P5 Conference in London and continuing P5 engagement with civil society.¹²⁵

A further criticism of the P-5 Glossary was that it was in many ways superseded by the *IAEA Nuclear Safety and Security Glossary*, which had first been published in 2006¹²⁶ and then updated in 2018 and 2022. This is unfair as the IAEA Glossary is primarily focused on civil and scientific uses of nuclear materials, whereas the P-5 Glossary is focused on military terms and applications. The two documents are in fact complementary. Moreover, in terms of the research in this thesis the glossary most frequently consulted because of its ease of access is produced and maintained by the CTBTO, although this is not multi-lingual.¹²⁷

The status of the 'second phase' of work on the Glossary is uncertain at the time of writing. In 2019, the UK Ambassador, Aidan Liddle, referenced a further "two meetings of the expert-level working group being held in Beijing."¹²⁸ Again, in the UK National Report to the NPT reference is made to 'The UK also continued to support China on the second phase of a Working Group on the Glossary of Key Nuclear Terms'.¹²⁹ It is worth noting that at this stage, China takes pride in its leadership of the Glossary initiative. One expert said, 'China appears to regard its leadership on the glossary as evidence that China is a responsible nuclear weapons state'.¹³⁰

That said, the expectation of the NNWS from 2010 was that the P-5 were going to talk about their Article VI obligations on disarmament rather than agree the terms by which weapons are defined, though this would be a necessary first-step. In the Wilton Park conference report, it noted, 'The glossary's great danger...is that it will simply be seen as lightweight, or as a distraction from the task of "real" disarmament'.¹³¹ A report by the advocacy group *Reaching Critical Will* on the 2015 NPT RevCon noted:

They were called upon to report on these undertakings in 2014; they were also, by Action 21, encouraged to agree on a standard reporting form. Instead of

¹²⁵ UN/NPT 2015: [Statement by P-5 States](#)--NPT/CONF.2015/41, published 5 May 2015

¹²⁶ IAEA, 2006. [IAEA Safety Glossary: Terminology Used in Nuclear, Radiation, Radioactive Waste and Transport Safety](#), September 2006.

¹²⁷ CTBTO Preparatory Commission, [Information Materials, Glossary](#)

¹²⁸ Ambassador Aidan Liddle, 2015: Speech to the UN General Assembly, 74th Session: [UK Statement on the P5 process](#) and First Committee, General Debate, 11 October 2019

¹²⁹ UK Government, 2021. [National Report of the United Kingdom of Great Britain and Northern Ireland, pursuant to Actions 5,20 and 21 of the Treaty on the Non-Proliferation of Nuclear Weapons \(NPT\) Review Conference](#) published 1 November 2021 (p. 17)

¹³⁰ Cited in Hoell, M., 2022. *P5 Process: Ten Years On*. European Leadership Network, 'Telephone interview with an expert from a P5 state, 19 July 2019' (p.4)

¹³¹ Wilton Park (2013) '[Conference Report: Towards the 2015 NPT Review Conference](#)', WP1265, cited in Hoell, M., 2022. *P5 Process: Ten Years On*. European Leadership Network (p.4)

complying with these agreed commitments, the nuclear-armed states came to the 2015 Review Conference with only a glossary of nuclear terms (an activity that did not appear anywhere in the 64 actions of the 2010 agreement)¹³²

8.5 Nuclear doctrines

Whilst the Glossary was not something that NNWS felt was a priority for the P-5 to address in their deliberations, their respective nuclear doctrines were.¹³³ This view is held within the P-5 too. According to officials, discussing nuclear doctrines is 'getting to the heart of what the P-5 should be discussing to build trust and transparency between themselves and with non-nuclear weapons states' (Hoell, 2019: 5). This had begun to happen in 2019 when Sir Alan Duncan MP provided Written Evidence to an inquiry being undertaken by the House of Lords International Relations Committee.¹³⁴ It was most recently confirmed by a statement by the Ministry of Foreign Affairs, People's Republic of China (December 2024) which said:

On December 4, 2024, as the chair of the P5 mechanism, China convened an expert-level P5 meeting in Dubai, UAE. Representatives from the five nuclear-weapons States (China, France, Russia, the United Kingdom and the United States) attended the meeting. The parties had a candid discussion on nuclear doctrines. It was agreed that such discussion was timely for the purposes of enhancing understanding of each other's nuclear doctrines and avoiding misunderstanding and miscalculation. In its capacity as the chair, China will continue to facilitate the P5 discussions¹³⁵

This statement is significant in that it confirms that the P-5 process is continuing despite the breakdown in P-5 relations in the UNSC following Russia's invasion of Ukraine in 2022. It is also important as there have been recent changes in the nuclear doctrines of P-5 countries especially Russia which is believed to have adopted an 'escalate to de-escalate' (E2DE) nuclear posture since 2018 according to the U.S. Department of Defense. This has been disputed by other experts who say, 'Describing Russian nuclear strategy as 'escalate to de-escalate' is an unproductive simplification.'¹³⁶ The latest U.S. Nuclear Posture Review by the Biden Administration in 2022 changed the nuclear doctrine in key respects by introducing 'allies and partners' as 'vital interests' that may

¹³² Reaching Critical Will, 2022: [NPT Briefing Book](#) by Ray Acheson published July 2022 (p. 10)

¹³³ 'Nuclear doctrine encompasses the goals and missions that guide the deployment and use of nuclear weapons..determine its force structure, declaratory policy and diplomacy.' NTI, [Discussion Paper, 2019. Nuclear Doctrine](#) by Paul Ingram, published January 2019

¹³⁴ Sir Alan Duncan, [FCDO report on P-5 meeting in Beijing, 2019](#), 'There was an exchange on the P5's respective national nuclear doctrines and postures, and agreement to continue these discussions' 30 January 2019; One P5 official said that 'the P5 shared their doctrines in advance of the meeting, gave brief national statements and asked each other questions.'

¹³⁵ Ministry of Foreign Affairs, PRC, 2024. '[China Chaired P5 Meeting on Nuclear Doctrines](#)' 10 December

¹³⁶ Chatham House, 2022. '[Myths and Misconceptions around Russian military intent](#)' 22 September 2022

lead to nuclear use, without specifying ‘partners’.¹³⁷ The UK also modified their nuclear posture in the 2021 Integrated Review,¹³⁸ in which it said it could respond to a catastrophic non-nuclear attack (such as cyber) with nuclear weapons. Meanwhile, China’s construction of hundreds of new missile silos in northern China and the deployment of quick-launch missiles, coupled with it being the only P-5 not to adopt a moratorium on fissile material production,¹³⁹ has sparked widespread concern that it could lead to a new nuclear arms race with the U.S., Russia and India.¹⁴⁰

The point is that nuclear doctrines are in an unprecedented state of flux, which increases nuclear risk through the potential for miscalculation. Discussion and understanding respective nuclear doctrines are therefore critical for managing nuclear risks. If the P-5 process existed for this sole-purpose, it would make a major contribution to the INWO.

9. Assessments of the P-5 performance

The failure of the 2015 NPT Review Conference, the boycotting¹⁴¹ of the Open-Ended Working Group,¹⁴² and the Oslo humanitarian-consequences initiative¹⁴³ led to concerns that the ‘P-5’ was developing into a unified group determined to retain their privileges in the NPT system without living up to their responsibilities, especially their Article VI (disarmament) obligations. The Republic of Ireland delegation to the 2015 NPT Preparatory Committee, said the “persistent underachievement” in nuclear disarmament [by the P-5] is no longer acceptable”.¹⁴⁴ According to others, “P5 unity’ has become a talking point in NPT Preparatory Committees.¹⁴⁵ Together, NNWS’ and civil society’s growing disillusionment with the P-5 was seen as a driving force behind the development of the TPNW (2017).¹⁴⁶ UNIDIR has observed:

¹³⁷ SIPRI Yearbook 2024. World Nuclear Forces (p. 275)

¹³⁸ British Government, Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy, CP 403 (Her Majesty’s Stationery Office: London, Mar. 2021), pp. 76–77.

¹³⁹ Hoell and Persbo (2020: 16)

¹⁴⁰ SIPRI Yearbook 2024. World Nuclear Forces (p. 316-318)

¹⁴¹ Acronym Institute, 2016. ‘[Britain’s boycott of UN multilateral disarmament talks](#)’ published 26 February 2016

¹⁴² The Open Ended Working Group was established by the UN General Assembly to develop plans for multilateral nuclear disarmament. See UNGA resolution [A/C.1/70/L.13/Rev.1](#), 29 October 2015

¹⁴³ Reaching Critical Will, 2013. ‘[Conference on the humanitarian impact of nuclear weapons, Oslo, 2013](#)’

¹⁴⁴ Reaching Critical Will, 2013. ‘[NWS labelled as ‘persistent underachievers’ in NPT yearbook](#)’ by Ray Acheson, Vol. 11, No.5, published 26 April 2016.

¹⁴⁵ Berger and Chalmers, 2013: 32

¹⁴⁶ The TPNW opened for signature in 2017 and followed another frustrating NPT Review Conference in 2015. The TPNW currently has 94 signatories and 74 state parties. The NPT has 190 state parties—though when I attended the Second Meeting of the State Parties to the TPNW at the UN in New York in November 2023, delegates were quick to point out that when the NPT entered into force in 1970 it only had 80 state parties.

Lack of mutual trust between supporters and opponents of the Treaty on the Prohibition of Nuclear Weapons (TPNW) is a more specific manifestation of these divisions among the NPT States parties. The reluctance of NWS to accept the bona fides of TPNW supporters—that they both support the NPT but also believe that the TPNW can be an important step in changing thinking about nuclear weapons—is particularly corrosive of the possibilities for collaborative action to address shared interests in non-proliferation, arms control, and nuclear disarmament.¹⁴⁷

Probably the most significant assessment of the P-5 process came from Lord Des Browne, the architect of the P-5 process in 2008. Lord Browne told a House of Lords Committee in 2019 that he was “extremely disappointed” by the P-5 process, adding:

I thought I was creating a dynamic for disarmament and peace, and what I created was a cartel—a group of Nuclear-Weapons States that in many other ways could not bear the sight of each other, but when it came to the common ownership of nuclear weapons were very good at articulating an argument as to why they needed nuclear weapons only because the rest of the world did not behave itself well enough (HL,2019: 37).¹⁴⁸

Sir Adam Thomson reflected that perhaps there was no alternative:

How do you manage great power competition? Not just in 2023 but up to 2050, but for all generations to come. That makes the P-5 extraordinarily interesting. Not just in a nuclear sense. But more generally, because although they're not the only owners of existential risk, they are the primary ones. (Interview: 20 September 2023)

Others point out that the P-5 process “is explicitly not a negotiating forum but a vehicle for dialogue on how the P-5 can meet the shared commitments they all made in the 2010 NPT Review Conference Action Plan (Interview, 2012)” quoted in (Ritchie, 2013: 2). That said, the joint statement of the P-5 meeting in London in 2009, did suggest a clear commitment to disarmament and non-proliferation, stating:

the P-5 considered the confidence-building, verification and compliance challenges associated with achieving further progress toward disarmament and non-proliferation, and steps to address those challenges (NPT Briefing Book, 2015: E-1)

This purpose of course evolved over time reflecting the changing dynamics within the INWO, NPT and wider geopolitics, by 2019 one P-5 ambassador said:

If the original purpose of the P-5 Process was predominantly disarmament verification, then its focus has now shifted to building trust and transparency, both among the P-5 and between the P-5 and the non nuclear-weapon states (Hoell and Persbo, ELN, 2020: 7)

¹⁴⁷ UNIDIR. 2021. “[Restoring Confidence Across Today’s Nuclear Divides: Symposium Report](#)”, Geneva: UNIDIR, p.1

¹⁴⁸ House of Lords Select Committee, Seventh Report of Session 2019-2020: ‘Rising Nuclear Risk, Disarmament and the Nuclear Non-proliferation Treaty (HL Paper 338) published 24 April 2019

10. Next steps-- P-5 goes to Washington?

The P-5 process is a creature of prevailing geopolitics. Hence, the tenth and final conference (not meeting) of the P-5 in December 2021 was the last formal conference at a principal level. There have been two meetings since involving experts, but they have necessitated being held in Cairo and Dubai because, as one UN official told me, Russian technical experts were no longer able to meet in Geneva because of international sanctions. In this respect, the INWO can be seen as inextricably linked to the politics of the global order.

U.S. National Security Advisor, Jake Sullivan did make an offer of bilateral arms control talks without preconditions with Russia and China.¹⁴⁹ Under the previous Trump administration, the proposal had been a trilateral negotiation between the U.S. Russia and China, but China rejected this.¹⁵⁰ In addition to proposing 'new' bilateral arms control negotiations between the U.S. and China and the U.S. and Russia, when referring to wider discussions, Sullivan said the "United States is willing to engage in new multilateral arms control efforts, including through the five permanent members of the UN Security Council." This is interesting because of the use of 'new' and the link to the UNSC rather than reinvigorating the 'existing' P-5 process which is organised out of the Conference on Disarmament diplomats in Geneva. This is not the first shift in approach. In 2022 the U.S. began to use the 'P3' (U.S., France and UK) in communications, such as their Joint Statement on Security Assurances,¹⁵¹ implying a *de facto* P-3+P-2 division which undermines the very *raison d'être* for the process.

As Russia prepared to take over the Chairmanship of the P-5 process in 2023, Deputy Foreign Minister, Sergey Ryabkov, offered his own reflections on the challenges facing the INWO:

The sphere of arms control is now clearly experiencing an unprecedentedly deep, in fact, systemic crisis...Against the backdrop of the aggressive policy of the North Atlantic bloc countries, which are increasingly acting as a united anti-Russian front on nuclear affairs....At the same time, I believe that we are quite capable of taking care not to further undermine the non-proliferation regime.¹⁵²

¹⁴⁹ The White House, 2023, Remarks by National Security Adviser Jake Sullivan for the Arms Control Association (ACA) Annual Forum at the National Press Club—2 June, 2023.

¹⁵⁰ Baklitskiy, A., 2020. Chapter-Mapping out and Agenda for U.S.-Russian Arms Control in Roberts, B., 2020. *Major Power Rivalry and Nuclear Risk Reduction: Perspectives from Russia, China, and the United States* (No. LLNL-TR-809702). Lawrence Livermore National Lab.(LLNL), Livermore, CA (United States).

¹⁵¹ U.S. Department of State, 2022. [P3 Joint Statement on Security Assurances](#) presented to the Nuclear Non-proliferation Review Conference—4 August 2022.

¹⁵² PIR Center—[Remarks by Russian Deputy Foreign Minister Sergey Ryabkov at XXII PIR Center International School on Global Security](#)—20 June 2023

This sentiment was echoed by Dmitry Stefanovich, a Russian researcher based at the Center for International Security at IMEMO RAS:

In general, the nuclear five has proved its viability in the current conditions, amid a particularly severe confrontation between its individual members, which is taking place under the “nuclear shadow”. The Russian chairmanship can be used to maintain this format¹⁵³

Jake Sullivan also set an agenda for the ‘new’ P-5 dialogue, including formalising the missile launch notification across the P-5; establishing crisis-control communications among the P-5 capitals; committing to transparency of nuclear policy, doctrine and budgeting; and establishing guardrails for managing the interplay between non-nuclear strategic capabilities and nuclear deterrence. Here we see a familiar trait of the INWO, namely that when a process becomes blocked or unproductive, the instinct, rather than unblock or reform, is to start again with something new, adding to the ‘baffling complexity’ (Walker, 2012) of the INWO.

We can see a growing disenchantment in Washington DC with the glacial progress of the P-5 process. This can be seen in the remarks of the influential Robert Einhorn, Senior Fellow at Brookings, but previously special advisor to Hilary Clinton on non-proliferation and arms control (2009-2013). He opened his remarks at a conference in 2021 on U.S.-Russia Nuclear Dialogue, “the P-5 has significant limitations as a forum for dealing with nuclear threat”. Einhorn argued that the principal threats of the nuclear order were a triangle between U.S., Russia and China and as such were, “best addressed bilaterally, not at a meeting of all five”. Concluding:

All five P-5 members will need to contribute to making the P-5 the most useful forum it can be. But the United States and Russia, as the world's leading and most experienced nuclear powers, have a special role to play. It is hard to imagine any progress in the P-5 in the absence of U.S. Russian leadership.¹⁵⁴

Perhaps even more significantly, the highly respected, Dr Christopher Ford, Assistant U.S. Secretary of State for International Security and Non-proliferation (2018-21), whilst in office, told a Wilton Park Conference (2019) on the P-5 process:

I would urge you not to read too much into the mere fact of meetings occurring among the five. We do continue periodic meetings, and they do help us better understand each other's positions and approaches. But meetings per se are just that: meetings. The name of the game should be to achieve substantive progress,

¹⁵³ Stefanovich, D., 2023. [The Nuclear Five: State of Affairs and Prospects for Russian Chairmanship](#) published ‘Opinion’ in the Valdai Discussion Club—30 August 2023

¹⁵⁴ Einhorn, R., 2021. [U.S.-Russia Dialogue: the P-5 process](#), CNS meeting 26 July 2021.

which is a different question than just whether or not N5 diplomats are willing to get together in a room from time to time¹⁵⁵

The scepticism of Dr Ford was in part driven by championing the new U.S. initiative, Creating the Conditions for Nuclear Disarmament proposed in 2018. What was later called CEND was designed to “jumpstart progress towards disarmament in the lead-up to the May 2020 Review Conference of the NPT” (Williams, 2020).¹⁵⁶ Arguing that a ‘New Structure Dialogue’ Creating the Conditions Working Group (CCWG) could complement (replace) the P-5 initiative, Ford told the Wilton Park conference in 2018:

The critical question now, however, is: “Where do we go next?” The P-5 have engaged regularly on NPT matters, and will continue to do so, but despite their shared commitments and central role in the NPT, they do not form a unified front on NPT matters.¹⁵⁷

The disenchantment was not limited to Washington, but shared by Moscow, but for different reasons. At the same event that Robert Einhorn spoke at, Amb. Grigory Berdennikov, former Deputy Foreign Minister of the Russian Federation, spoke on the same topic of the P-5:

Since at that time [the start of the P-5 process 2009-10] there was no agreement what new agreements to negotiate among the Five, the conferences had very broad agendas comprising such issues as nuclear doctrines, CBMs, peaceful uses of nuclear energy, safeguards etc.... After the events of 2014 the public part of the P-5 conference was used for propaganda unrelated to its scope of reference.¹⁵⁸

This view was contested by some significant voices in the U.S. ‘nuclear establishment,’ Ernest Moniz and Sam Nunn wrote:

[T]he U.S. should work with all parties [to the NPT] and particularly through the P-5 process. The United States should work with the rest of the P-5 to affirm their commitment to preventing the use of nuclear weapons...(2021:3)¹⁵⁹

There is an inescapable conclusion drawn from the literature and interviews and that is that the P-5 in its current form has run its course. It has lost the engagement of leading political figures like Des Browne and Margaret Beckett, and needs to be reformed, reinvigorated, and relaunched—but how?

¹⁵⁵ Ford, C., 2019. [The P-5, the ‘N5,’ and the NPT Review Conference](#)—remarks by Assistant Secretary Ford, 16 December 2019

¹⁵⁶ Williams, H., 2020. [CEND and a Changing Global Nuclear Order](#). *European Leadership Network*, 18.

¹⁵⁷ U.S. Department of State, 2018. [The P-5 Process and Approaches to Nuclear Disarmament: A New Structured Dialogue](#). Remarks by Dr Christopher Ashley Ford, Assistant Secretary, Bureau of International Security and Non-proliferation—delivered at Wilton Park, 10 December 2018

¹⁵⁸ Berdennikov, G. 2021--[U.S.-Russia Dialogue: the P-5 process](#), CNS meeting 26 July 2021

¹⁵⁹ Moniz, E.J. and Nunn, S., 2021. *Strengthening the Foundation for Nuclear Stability*, published by Nuclear Threat Initiative (NTI)

11. How does the P-5 process affect great power management?

The P-5 process can be seen as an initiative to further institutionalise the management of great powers in the INWO. The P-5 process has helped shape great power management in the INWO and, in turn, has been shaped by it (Buzan, 2004: 144-145). How successful it has been, as we have discussed, is debatable. However, it has provided a reference point for great power activities, which is formally recognised by them and by the wider INWO. The Chair's Summary of P-5 process meetings is circulated to the Conference on Disarmament.¹⁶⁰ Statements on behalf of the P-5 process are also presented to NPT Review Conferences, though the last time this happened was 2015. The state practice of the five recognised NWS under the NPT meeting together to manage risks between themselves strengthens the belief of special responsibilities in the system. It illustrates what Bull termed the first responsibility of great power management, namely, for great powers to manage relations between themselves. In practising this through the P-5 process, states are recognising the prior existence of the PI of great power management. The fact that the membership of the nuclear P-5 maps that of the UNSC P-5 is a way in which great power management in the INWO can have a direct impact on GPM in the wider global order. This is consistent with Buzan's argument that 'A key function of modern secondary institutions is to reflect and reproduce the primary institutions that make up the international normative structure' (Buzan, 2023: 16). It reflects 'historically contingent intersubjective meanings attached to international society's basic ordering practices' (Schmidt and Williams, 2023: 3).

One of the possible weaknesses of the P-5 process, which has limited its effectiveness, is its 'membership' (Wheeler, 1996: 134). It has been argued from the research that membership is either too narrow or too wide. Too narrow in the sense that the INWO is recognised as a United States-led order, with the Russian Federation as an essential partner. This would explain the growing frustrations of U.S. officials such as Jake Sullivan and Dr Christopher Ford at the slow pace of progress in the P-5. On the other hand, others have suggested that there is a need for the P-5 process to be widened to include at least India and Pakistan.¹⁶¹ The problem with widening rather than deepening the institution of the P-5 process is that it is likely to frustrate progress even more. At present, we see that the P-5 process is primarily driven by the UK and China, which is laudable,

¹⁶⁰ See: [Note Verbal CD/1256](#) presented by the Permanent Mission of the PRC on the P5 process, Beijing Conference 3 May 2019

¹⁶¹ BASIC, 2011. [Multilateralizing Nuclear Arms Control: an agenda for the P-5 process meeting in Paris](#) by Andrew Cottey, 29 November 2011 and RUSI, 2013. [Great Expectations: The P-5 process and the Non-proliferation Treaty](#) by Andrea Berger and Malcolm Chalmers, August 2013.

but 'without U.S. leadership in the INWO nothing is possible and with U.S. leadership, anything is possible' was one of the key findings of the research. That said, this can be linked back to the previous debates about the interactions between primary and secondary institutions, where innovations within secondary institutions, such as advocating a 'P-5 plus' approach, can play a role in shifting the accepted discourse within the established INWO, as happened when the UK advocated for the P-5 strategic dialogue in 2007 and 2008.

12. Conclusion

The purpose of examining the P-5 process as a case study was to test the theoretical claims made in the early part of the analysis. It was also selected to provide a contrast and, in some instances, a cross-reference to the previous chapter on the Prague Agenda. Through examining the P-5 process, it was possible to see differences with Prague, and indeed with claims made earlier in the research. One of the central claims was around the centrality of non-proliferation as the unifying theme of the INWO. Non-proliferation was central to the Prague Agenda but has not featured strongly in the P-5 process. There was an initial focus on the FMCT as a non-proliferation measure but opposition from China has meant this work has largely been sidelined.

There has been a stronger focus on nuclear doctrines, glossaries, transparency and verification, which are all important elements of the arms control and disarmament agenda. This is interesting as disarmament was seen as being the weakest area of the INWO. Moreover, whatever the language, this has certainly not been followed through in actions of the P-5 where the U.S., Russia and China are all embarking on unprecedented upgrades in nuclear capabilities. Even the UK has abandoned previous pledges to reduce warhead numbers and left open the possibility of increasing them.

The consequence of this has been to erode the main aim of the P-5 process which was to support the INWO which many felt was in danger of collapse following the 2005 NPT Review Conference. The success of the P-5 process and the Prague Agenda was to shore up the NPT and contribute to a successful 2010 Review Conference. However, the failure of the P-5 to live up to commitments made at the conference fuelled an even greater disillusionment amongst NNWS. In turn, this meant that momentum gathered behind the TPNW, which has now come into force despite the concerted efforts of the P-5. The failure

of the 2015 NPT RevCon, the 2021 RevCon and the likely failure¹⁶² of the 2026 RevCon means that the INWO is again looking to the great powers of the P-5 to live up to their responsibilities to manage relations between themselves and NNWS to preserve order.

The P-5 process, however, is still going, which is something that cannot be said of the Prague Agenda. The UK will take over the chair of the P-5 process in the summer and have the task of leading the group of nuclear states in the lead-up to the crucial NPT review conference in 2026.¹⁶³ There is, therefore, still the possibility of reform and re-engagement. This is problematic within the INWO because, in the past, we have seen that reforming existing structures is virtually impossible. Therefore, the solution will likely be a new process emerging a P-5 2.0. This need not be as destabilising as it sounds, and the case study includes a series of recommendations as to how this could be done, leaving it in a stronger position than before

As with all previous initiatives, we know that with the U.S., anything is possible, and without them, nothing is possible. Hence, the inclusion and leadership of the U.S. will be critical to the success of any new venture. This also presents an opportunity for a facilitation role by the UK as the closest nuclear ally of the U.S. to play an important role in patient diplomacy again to build momentum and to bring other NWS on board.

¹⁶²‘After two weeks of discussions and some final negotiations behind closed doors, the third Preparatory Committee (PrepCom) [28 April to 9 May 2025] for the 2026 NPT Review Conference (RevCon) ended without adopting recommendations for the RevCon. Despite efforts by the Chair, the PrepCom also did not adopt the draft decision he had put forward on strengthening the NPT review process.’ Reaching Critical Will, [NPT News in Review](#), vol. 20, no. 6, p.1, 10 May 2025

¹⁶³ Answer to a Written Question by [Baroness Chapman, UK Foreign Office Minister, 1 August 2025](#): *The P5 Process, established by the UK in 2009, remains an important channel through which the Nuclear Weapon States (NWS) discuss implementation of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). The UK will assume the 2025-26 chair of the Process this summer 2025, taking over from China. We will seek to convene substantive discussions on nuclear doctrine between the P5 states, and discuss nuclear risk reduction. We will also facilitate two accompanying non-government dialogues, the Expert-Level Track (ELT) and Young Professionals' Network (YPN). The purpose of these dialogues is to engage non-proliferation and disarmament experts and early career professionals from academia and think tanks in P5 countries, with the aim of generating new ideas to support the government-level process.*

Summary:

Key thesis claim	Relevant 'P-5' empirics	Assessment
Inter-national order	U.S., Russia, China, France and the UK are all state actors	Partial: can understate the influence of civil society actors e.g. ELN, R.U.S.I, KCL and BASIC
International Nuclear Weapons Order (INWO)	Key aims are confidence building, transparency, doctrines and verification in pursuit of Article VI obligations on disarmament	Partial: The P-5 work in areas such as the Glossary, FMCT can also relate to peaceful uses, but work on nuclear doctrines is central
The primary institution of 'War' better understood as 'War Avoidance' in INWO	The 2023 joint P-5 statement that a 'nuclear war can never be won and must never be fought'	Partial: Since 2023 Russia have made a number of direct nuclear threats undermining the nuclear taboo
Low politics and poor relations in New York (UN) undermine Vienna agencies' (UN) vital work on nuclear security.	The P-5 have not met at principal level since Paris (2021). Technical expert meetings have taken place in Cairo (2023) and Dubai (2024)	Full: The technical meetings of the P-5 tend to draw on Vienna areas of expertise.
Primary institution of Great Power Management dysfunctional in INWO	The P-5 have not met at principal level or issued joint statements to the NPT PrepComs 2023 or 2024 and are unlikely to do so in 2025.	Partial: the U.S. have called for nuclear talks 'without pre-conditions' with Russia and China bilaterally.
U.S. leadership of the INWO	The P-5 process (2009) would not have happened without the Prague Agenda (2009)	Full: Since 2018 the U.S. has become disinterested in the process preferring CEND and bilateral negotiations with Russia and China
Non-proliferation of nuclear weapons the unifying <i>raison de système</i> of the INWO	Because the P-5 focuses on Article VI disarmament rather Article I non-proliferation it is less unified	Partial: Maintaining the NPT and opposing the TPNW remain strong areas of agreement for the P-5
'Baffling complexity' a defining feature of INWO	As P-5 began to lose momentum in 2014 attention started to move to new initiatives	Full: Instinct for P-5 to work outside, or around, UN, NPT and Conference on Disarmament

11.1. Table 25. Assessment of thesis aims against P-5 case study findings

Chapter 9: Conclusion

1. Main Argument

The main argument of this research is that the international nuclear weapons order (INWO) is distinct within international society and that this distinctiveness is derived from the unique destructive capacity of nuclear weapons. The order is best understood as an International Nuclear Weapons Order (INWO) rather than a global nuclear order because it is an order constructed and maintained overwhelmingly by states, hence it is an international. It is defined not by civil but military uses—the ‘absolute weapon’ and requires an ‘absolute order’ to underpin it. From a theoretical perspective, the INWO fits within the framework of the English School of International Relations in that it is rational, orderly and founded upon durable primary and secondary institutions focused on nuclear non-proliferation and nuclear security. However, it is argued that certain primary institutions should be understood and applied differently within the INWO context. The Great Power Management function is provided by the United States leadership but with the necessary consent of the Russian Federation. War is best understood as war avoidance, and the concept of balance of ‘power’ becomes blurred between nuclear-armed states. Ultimately, it concludes that, based on both empirical and historical evidence, the INWO is more robust and functional, and its leaders are more rational than many scholars and commentators have previously acknowledged. This finding is consistent with the understanding of maintaining order within international society and the interactions with primary institutions as claimed by English School scholars.

This thesis set out to answer three main research questions:

- i. How is the English School concept of order in international society maintained in a world with nuclear weapons?**
- ii. Is the International Nuclear Weapons Order (INWO) unique?**
- iii. How do English School concepts of primary and secondary institutions contribute to the maintenance of order in the INWO?**

2. Main Findings

2.1. The construction of order in the INWO

Conventional wisdom presents the International Nuclear Weapons Order (INWO) as being in crisis or at least unravelling (Rajaraman, 2020). The reasons for the pessimism are claims that the international order is reverting to intense power competition and rivalry as the balance of power shifts Eastward. The great powers of the INWO have lost their

legitimacy in the eyes of the non-nuclear weapons states (NNWS). This is due to their failure to adhere to Article VI, NPT obligations to work together towards disarmament. This has led to increased support for the TPNW, which has contested the legitimacy of the NPT (Considine, 2019: 1091), which is claimed to be the ‘cornerstone’¹ of the nuclear order. It is presented as a world oscillating between Cold War realism and post-Cold War idealism. It is a world of hawks and doves. It is indistinguishable from the rest of the global order in which it sits. However, the argument of this thesis is that the INWO is rational and distinctive from the rest of the international order because of the uniqueness of nuclear weapons and the binding force and *raison de systeme* is the non-proliferation of nuclear weapons and the security of nuclear materials: It is the one thing all nuclear weapons states (NWS) and non-nuclear weapons states (NNWS) agree on. The INWO is not ‘unravelling’, but it is changing, driven by new missile and AI technologies, shifting power balances and efforts to stigmatise nuclear weapons through the TPNW.

2..2. The INWO logic--N+1 (= O)²?

Nuclear weapons carry prestige in the system; it is the ‘halo’ around power (Wight, 1979). Consequently, the addition of a new nuclear weapons state is only going to dilute the ‘prestige’ and *advantage* of the existing NWS. This is what Albert Wohlstetter (1964) calls the ‘n+1’ problem. For the non-nuclear weapons states, they are disadvantaged in the system. Hence, the addition of another NWS (n+1) will only serve to heighten that *disadvantage*. Therefore, they agree, and they undertake collective action³ (Acharya, 2012: 344) to prevent nuclear non-proliferation and promote nuclear security. Moreover, the first rule of the sovereign state is to survive in a system of anarchy and to uphold an international society of independent sovereign states has proved an effective way of securing those ends (Jackson,2007). As a result, they are even more committed to ensuring that nuclear weapons materials do not fall into the hands of terrorists/non-state actors.

¹ Ministry of Foreign Affairs France, 2022. Join Ministerial Statement by France, United Kingdom and United States, ‘[NPT the cornerstone of nuclear non-proliferation](#)’ issued in New York, 1 August 2022

² Where ‘O’ is the value ‘Order’.

³ ‘collective action’ is taken to mean, “the ability to refrain from individually profitable actions for the sake of the common good” (Bandiera, Barankay, and Rasul 2005).

2..3. Testing unity ?

There is near unanimity⁴ about a moratorium⁵ on nuclear testing, as testing would be a necessary precursor to acquiring a weapon. When combining nuclear security with non-proliferation and non-testing, we observe an extraordinary level of cooperation and even solidarity among states. It, therefore, ‘pays to make the system [of nuclear non-proliferation] work’ (Watson, 2009: 14). No state wants to see a new NWS unless, in the case of Iran, it is them. Therefore, what is holding them together is non-proliferation and nuclear security. It is not disarmament, nuclear deterrence or even the nuclear taboo, which may hold them apart, but not together. This is a key claim of the research and is illustrated in the proposed new model for the INWO (Table 10, page xx).

This is held to be true in respect of horizontal proliferation but is less so in vertical proliferation, where competition is increasing between the United States, Russia, and China. Finally, we considered the difference between order as a kind of functional regularity or predictability and order as value which suggests cooperation (Elster, 1989: 1). Here, I have argued that the INWO in the realm of deterrence and disarmament is operating at thinner ‘functional’ pluralist level, but in the realm of non-proliferation and nuclear security there is a deeper/thicker solidarist level of meaningful cooperation (Buzan, 2004:154; Dunne, 1998:11)—examples would include the JCPoA and the Global Initiative to Combat Nuclear Terrorism (GICNT). This would be the answer to the question in the context of ES theory as to whether the INWO is solidarist or pluralist. The answer would be it is both and it depends upon which level of the INWO is under examination—non-proliferation and nuclear security would be solidarist, disarmament and deterrence would be more pluralist (see Illustration 10).⁶

2..4. Shared interests of the INWO

Hedley Bull claimed that international society exists when a ‘group of states, conscious of certain common interests and common values, form a society’ (1977,13). In the INWO

⁴ Arms Control Association, 2025. [Trump Says U.S. Will Resume Nuclear Testing](#), by Carol Giacomo, published 1 November 2025.

⁵ The last nuclear test was carried out by North Korea in 2017; the last nuclear test by a P-5 state was carried out in 1996 (Arms Control Association. Fact Sheet: ‘The Nuclear testing Tally’ by Daryl Kimball, updated January 2024)—though a category called ‘sub-critical’ tests were carried out by the U.S. and UK in Nevada in 2002 (Guardian Newspaper report by Duncan Campbell—15 February, 2002).

⁶ For more on the important pluralist/solidarist debate in the English School see: Bain, W., 2021. Pluralism and solidarism. *International society: the English school*, pp.95-108; Wheeler, N.J. and Dunne, T., 1996. Hedley Bull’s Pluralism of the Intellect and Solidarism of the Will. *International Affairs*, 72(1), pp.91-107 and Williams, J., 2005. Pluralism, solidarism and the emergence of world society in English School theory. *International Relations*, 19(1), pp.19-38.

the common interest is nuclear non-proliferation. This common interest acts as a counterweight to competing national interests and contributes to an international society of sovereign states. This fits with the arguments advanced by Hedley Bull and the English School (ES) of International Relations that nation-states simultaneously cooperate in certain domains and compete in others. The INWO is a domain in which we see evidence of common interests in the order, although there is competition between NWS, particularly the P-5, over nuclear weapons technology and missile defences—this is vertical proliferation. In this sense, the INWO can experience an interplay between realism, rationalism and even idealism (Williams, 2005:21), again, depending on the level of ‘analysis’ under examination within the INWO. NWS states are cooperating in horizontal non-proliferation and simultaneously competing with vertical proliferation.

This renewed competition in vertical proliferation between NWS is not without effect in the INWO. It is increasing cooperation between non-nuclear weapons states (NNWS), exemplified by the TPNW, Non-proliferation and Disarmament Initiative and the Stockholm Initiative. The P-5 NWS of the NPT are united in their opposition to the TPNW, which they claim is undermining the NPT, the cornerstone of the non-proliferation order. This is a key argument for the existence of a social dimension to the INWO. There is nothing which the TPNW can do to compel NWS to give up their nuclear weapons or subject themselves to its verification and inspection regime, so why should NWS be so hostile to the TPNW? The key is bound up in the fact that their privileges in the system are conditional on consent and recognition of their legitimacy in the INWO. Society is made up of certain agreed norms, rules, expectations, institutions, and practices and not simply power balances (Bull, 1977). The purpose of those norms is to introduce a measure of predictability into international relations (Goh 2013:7), which is especially important regarding relations between NWS, and they depend on ‘consent’ of NNWS for their legitimacy.

2..5. Nuclear weapons stigma and social facts

NNWS states, supported by civil society organisations⁷ are moving down a track to stigmatise nuclear weapons (Kurosawa, 2017; Smetana, 2020). They point to the successful stigmatising of chemical and biological WMD, which resulted in the Biological Weapons Convention (1975) and the Chemical Weapons Convention (1997). Similarly, they point to the stigmatising of cluster munitions, which led to the Convention on Cluster Munitions (2008) and the use of anti-personal landmines through the Anti-Personnel

⁷ E.g. ICRC and ICAN

Landmine Convention (1997).⁸ In all cases, whilst there may have been military and strategic reasons for retaining such weapons, however, to preserve legitimacy, they have agreed to their abolition. This is important as it underscores the social and normative dimension of the construction of international society and how norms and institutions, in this case Great Power Management, to sustain order in the INWO.

My research found evidence that NWS feel vulnerable to similar efforts to stigmatise nuclear weapons and undermine not only the legitimacy of their use but also of their possession. This was discussed in the context of ‘social facts’ (Durkheim), which arise out of ‘collective intentionality’ (Buzan, 2004: 166) and are distinct from ‘brute’ facts, which exist without human thought affecting them. As such, the advocates and the opponents with respect to the TPNW are correct and rational, for if the TPNW garners sufficient support to become a ‘social fact’, then it would be extremely difficult for NWS to resist⁹—as happened with Chemical and Biological WMD. However, the NWS, especially those within the NPT, are also behaving rationally in seeing the TPNW as a threat.¹⁰ This is evidenced by the voting in the paving resolution for the TPNW held in December 2016 at the UNGA in which 113 member states voted in favour, 35 were against it, and 13 abstained. Moreover, as we have documented, many NATO states and states with extended nuclear deterrence were ‘encouraged’ to oppose the resolution. This is important as it demonstrates the *via media* of rationality at work in the INWO as envisaged by the English School.

2.6. Evidence for main findings

The argument presented here is that a narrow reading of general dissatisfaction with the NPT (because of its unjust composition and the failure of NWS to live up to their Article VI obligations) has led to the incorrect conclusion that the INWO is in crisis and weakening. However, I argue, based on the evidence collated, that the INWO is more robust than it first appears because what holds the political order together is not disarmament, deterrence or even the ‘nuclear taboo’ (Tannenwald, 2007) but rather a strongly accepted common interest of non-proliferation of nuclear weapons to state and

⁸ In recent months a number of countries have started to withdraw from the Ottawa Treaty, so far Finland, Latvia, Lithuania, Estonia and Poland have announced their withdrawal from the 165 member state agreement see: ELN, 2005. Leaving the Landmine Ban Treaty Puts Civilians at Risk by Mary Wareham and Laura Lodenuis published 16 June 2025.

⁹ For a helpful overview of this argument see: Gibbons, R.D., 2024. How Great Powers Resist Emerging Norms: The United States and the Treaty on the Prohibition of Nuclear Weapons. *Peace Review*, 36 (2).

¹⁰ Williams, H., 2018. A nuclear babel: narratives around the Treaty on the Prohibition of Nuclear Weapons. *The Nonproliferation Review*, 25(1-2), p.51.

non-state actors. In this respect, the NNWS, who may lack the military capability and political will to enforce non-proliferation, find themselves relying on NWS, especially the United States, to enforce non-proliferation norms from which they benefit. This is the *raison de systeme* in the INWO and why it 'pays for NNWS and NWS to make the system work'. The collapse of the NPT, which is frequently predicted, normally just before or just after the quinquennial NPT Review Conferences, has not happened. I would argue that it is extremely unlikely to happen because of the binding forces of nuclear non-proliferation and nuclear security which united NWS and NNWS alike.

Evidence of this is that the NPT now has 191 state parties. Only 1 state party has ever left the NPT (North Korea, 2003), and only four states have not signed or ratified the NPT (India, Pakistan, Israel and South Sudan). There are still only 9 nuclear weapons states despite 44 states being assessed to have advanced nuclear programmes.¹¹ In 1987, there were 9 NWS, 5 pursuing and 5 considering (19); in 2024, there are 9 NWS, 1 considering and 1 pursuing (11) (NTI, 2024). Since 1989, four states have abandoned nuclear weapons altogether and joined the NPT (Belarus, Kazakhstan, South Africa, and Ukraine). Prior to the CTBT (1996), there were 2044 nuclear weapons tests carried out; since then, there have been just 12 (6 by North Korea). The total number of nuclear warheads has reduced from just over 70,374 (1986) to 12,100 now (SIPRI,2024).

Despite dire warnings from Barack Obama, amongst others, of non-state/terrorist actors securing nuclear materials, as far as we are aware, none have come even close because of the strenuous global efforts to restrict access to nuclear materials. All this is despite the NPT Review Conferences having failed to reach an agreement since 2010 and the TPNW now having 74 state parties (99 signatories). Why? If the INWO is unravelling, then all these indicators should be heading in the opposite direction. There are two reasons: First, the unity of purpose of the INWO in stopping nuclear proliferation and increasing nuclear security is improving. Or, that states increasingly see nuclear weapons as illegitimate and are willing to forgo their acquisition even though they carry increased status and are effective deterrents. Scott Sagan asked, 'Why do states build nuclear weapons?' (1996), but 'Why states decide not to acquire nuclear weapons?' is underexplored, with the notable exception of T.V. Paul (2000).¹² This would be an area which would benefit from further research.

¹¹ Appendix 2 states of the CTBT

¹² Paul, T.V., 2000. *Power versus prudence: Why nations forgo nuclear weapons*. McGill-Queen's Press-MQUP.

3. Additional Theoretical findings—The English School

3.1. Pragmatic historicism

A key argument of this thesis is that the INWO can be grounded in English School theory (ES) in several ways, which helps us understand the empirics: First, the ES is rooted in historicism and interpretivism—the so-called ‘classical approach’ (Bull, 1966). If we were to undertake this analysis in the present day, we might conclude that the INWO is in a state of some flux. However, in chapter five we explored the evolution of the INWO as it lurched from crisis to crisis and yet has always managed to find solutions. Martin Wight noted that the purpose of university education, and indeed the ES theory, should be to escape from the *Zeitgeist* of the current age, which holds that the present times are the most consequential in history and help us acquire perspective and knowledge that the same predicaments have been explored before (Bull, 1976: 113)¹³. This matters because, without it, we can construe that the nuclear threats made by Russia against NATO in respect of Ukraine¹⁴ represent an unparalleled catastrophe, a breaking of the ‘nuclear taboo’¹⁵. However, from a historical point of view we see that such thinly veiled nuclear threats have been made multiple times, by multiple NWS from the Berlin Airlift (1946); the Second Taiwan Straits crisis (1958); the Cuban Missile Crisis (1962); Yom Kippur War (1973); NATO Able Archer (1983); Kargil War (1999); Iraq (2002); North Korea (2017)¹⁶. Each time the threats were averted often because of crisis diplomacy and international interventions. Herbert Butterfield urged scholars to ‘purge themselves of present-minded prejudice’ and instead rely on ‘inductive empiricism’ (Bevir and Hall, 2020: 157).

3.2. Rationalism

This leads to a further contribution that ES theory can bring to the examination of the INWO, and that is the introduction of the *via media* Groatian rationalism between Hobbesian realism and Kantian idealism. Much of the modern debate surrounding nuclear weapons has oscillated between variations of Kenneth Waltz’s 1981 monograph- *The Spread of Nuclear Weapons: More May Be Better*, and Scott Sagan’s 1994 paper *The Perils of Proliferation*, which is often referred to as ‘More Will be Worse’.¹⁷ Either they

¹³ An illustration of the ‘Zeitgeist’ in the light of current events (February 2025) was one senior British diplomat, Alyson Bailes wrote, ‘The crisis of 2001-03 in transatlantic relations has been beyond question one of the worst, perhaps the worst, in post-World War Two history’ (2004: 19).

¹⁴ House of Commons Library, 2024. Research Briefing: ‘Russia’s use of nuclear threats during the Ukraine conflict’ by Claire Mills (No 9825) published 20 December, 2024.

¹⁵ Chatham House: [‘Myths and misconceptions around Russian military intent’](#), September 2022

¹⁶ Chatham House: [‘Twelve times we came close to using nuclear weapons’](#) update 1 February 2021

¹⁷ Sagan, S.D. and Waltz, K.N., 2013. *The spread of nuclear weapons: an enduring debate*. WW Norton.

have preserved the peace for eighty years, or they have placed humanity under a 'Sword of Damocles' and brought us to the brink of extinction as a species and 'we must get rid of them before they get rid of us.'¹⁸

The ES approach frees us from the need to make an *either/or* choice and opens the possibility that it may indeed be *both/and*. Under *rationalism*, sovereign nation-states simultaneously cooperate and compete depending on their national interests, to protect their 'vital interests' of state survival. Robert Gilpin, in his book on rational choice theory, *War and Change in World Politics* (1981) argues that nuclear weapons do not change the 'rational' way in which states go about their business (1981:230). It is the world of the owls between the hawks and the doves (Allison et al, 1985). As a result, we see that during the Cold War, with a nuclear standoff between NATO and the Warsaw Pact, it may indeed be rational to compete by increasing nuclear arsenals and delivery capabilities and yet, at the same time, rational to cooperate to control the threat of horizontal proliferation to other states. This paradox of cooperation at the height of competition was made explicit in the *Basic Principles of Relations between the U.S. and USSR* (1972) agreement, which declared "discussions and negotiations on outstanding issues" between the United States and the Soviet Union would "be conducted in a spirit of reciprocity, mutual accommodation and mutual benefit" (Keohane, 1986: 2). Such an agreement would be difficult to conceive of in a realist world of 'self-help' which necessitates competition (Waltz, 1979) but in a rational world, cooperation can be an extension of self-help.¹⁹

For example, we considered in chapter 7, the Nunn-Lugar Cooperative Threat Reduction Act (1991), under which the United States paid and provided practical assistance to the Russian military to secure WMD sites and materials in the former Soviet Union. It was a time of chaos in the former Soviet Union 'everything was for sale' and that included WMD (Allison, 2012: 4). For the realists, this would be a moment of maximum weakness of an enemy to be exploited for 'relative' national gain; for the idealists, this would be a moment to call a halt to the nuclear arms race and move towards abolition. Neither happened. What did happen was rational: What the United States feared more than a heavily nuclear-armed Russia was the creation of three new NWS; the potential proliferation of nuclear materials to Iran, Pakistan and North Korea and to non-state actors/terrorist groups. It was therefore an example not of naïve magnanimity towards a diminished former

¹⁸ Paraphrasing JFK's address to the UNGA in September 1961

¹⁹ See: Buzan, B., 1991. *People, states and fear: An agenda for international security studies in the post-Cold War era*. Harvester Wheatsheaf and Wendt, A., 1995. Constructing international politics. *International security*, 20 (1).

adversary but rather a pragmatic act of self-help achieved through cooperation, not competition in pursuit of ‘absolute’ international, rather than ‘relative’ national, gains. As Jeffrey Kopf found in his research in 2022, “Since 1991, there are clear signs of the erosion of both strategic stability and the nuclear taboo. In contrast, nuclear non-proliferation has been getting stronger and was a realm of dynamism and innovation” (2022: 205). My own research may not have found much ‘dynamism and innovation’ but it would share the conclusion that the INWO is ‘getting stronger’ because of the strength of the international commitment to prevent horizontal proliferation.

3.3. *Institutionalism*

This then leads us to another foundational claim of the English School, that is, institutions—primary and secondary, which help international society ‘hang together’ (Ruggie, 1998). Institutions are the neural synapses of the international order. For Christian Reus-Smit, they were the ‘elementary rules of practice that the state formulates to solve coordination and collaboration problems associated with coexistence under anarchy’ (1997: 557). The term ‘elementary’ suggests that institutions are primary, something before organisations are formed. In the previous example of the collapse of the Soviet Union, we see some of those ‘primary’ institutions at work: diplomacy, great power management and international law. From these ‘primary’ institutions came the ‘secondary’ institutions: The Cooperative Threat Reduction Programme, The Lisbon Protocol, The Budapest Memorandum, and The Presidential Nuclear Initiatives.

The claim of the English School, which I found supported in the evidence, was that these secondary institutions did not appear *ex nihilo* but were the intentional product of states with shared interests and the existence of primary institutions. They were creations of international society for specific purposes (Spandler, 2014: 607). These institutions, primary and secondary, then become, according to Kalevi Holsti, the ‘context within which the games of international politics are played’ (2004: 18). ES scholars can therefore be said to be ‘institutionalists’ (Schouenborg, 2013: 131). For Charlotta Friendner Parrat, it is the ‘basic wager’ of the ES, being that it was a primary rather than secondary institution which maintained order in the international society (2017: 623). How these primary institutions operated within the INWO has hitherto been underexplored and is therefore a contribution to the literature.

3.4. *‘Baffling complexity’*

The INWO is one of the most complex institutional orders in the global order. William Walker famously referred to it as ‘bafflingly complex’ (2012: 25)—a quote I have used

many times in the thesis already. A key deliverable I set out for the research in the Methods Statement (Chapter 4) was to try and map the INWO in all its complexity. Following the literature review I was able to identify sixty secondary institutions/organisations of the INWO²⁰. I then took the list and sent it in advance to my forty-three interviewees and asked them 'What is missing?' As a result, the number of institutions/forums/agreements/initiatives expanded from 60 to 124. The full list is contained in Appendix 1 and represents a contribution to the current literature. The descriptive mapping of the INWO is, of course, interesting, but not as much as why it should be so. This would be an area which would benefit from further analysis along the lines of that already explored by Dennis Schmidt (2020).²¹

In chapter 6, I have endeavoured to set out some initial thoughts on the reasons for the complexity of the order: firstly, that the INWO is an order in which there is no shortage of money. Annual expenditure on nuclear weapons is estimated to be in the region of USD\$ 91.8 billion and increasing at a rate of 13.4% annually across the nine NWS, but the increase is fastest in the U.S. (+17.5%), UK (+17.1%) and Pakistan (+12.5%) (Statista, 2023). This does not tell the full story because most of the total expenditure is from one country, the United States. As identified in Chapter 6 the trade-off between Barack Obama and Congress for approving New START (2010) was to agree to the most significant investment in upgrading nuclear weapons in history—estimated at U.S.D\$ 1 trillion over thirty years²²--The Arms Control Association has said that cost increases in the budget mean that the final figure could be closer to \$2 trillion.²³ That represents a substantial long-term interest in the nuclear U.S. military-industrial complex.²⁴ Most of the U.S. funding will go to major nuclear weapons contractors such as Bechtel, General Dynamics, Honeywell, Lockheed Martin and Northrop Grumman, which in turn ensures vast sums in

²⁰ The most comprehensive single documentary source for institutions of the INWO is contained in the 'NPT Briefing Book (2012) published by King's College: Elbahtimy, H. (2021). NPT Briefing Book 2022 Edition. (2022 ed.) King's College, London.

²¹ Schmidt, D.R., 2020. 'Complexity in international society: theorising the linkages in primary and secondary institutions in Complexity, Governance & Networks—Vol.6, No. 1 (2020) Special Issue: Global Governance in Complex Times: Exploring New Concepts and Theories on Institutional Complexity, pp.94-108.

²² Korb, L.J., 2017. Rising tensions, nuclear modernizations: How Washington can turn down the heat. *Bulletin of the Atomic Scientists*, 73(3), pp.173-176.

²³ Reif, K. and Sanders-Zakre, A., 2019. *US Nuclear Excess: Understanding the Costs, Risks, and Alternatives*. Arms Control Association.

²⁴ Responsible Statecraft, 2024. '[Meet the lobbyists behind the \\$2 trillion nuclear weapons boost](#)' by Hekmat Aboukhater and William Hartung published 7 August 2024

lobbying and funds available to think tanks and organisations working in the field of nuclear weapons, especially in the United States.²⁵

In Appendix 1, I have listed the thirty most influential think/tanks on nuclear matters and noted that of the 30 leading think tanks/NGOs working in the INWO: 12 were in the U.S.; 7 were in the UK; 6 were in Europe; 2 in Canada and 1 each in Japan, Australia and South Korea. This has led Kjølsv Egeland and Benoit Pelopidas to issue a timely paper *No such thing as a free donation? Research funding and conflicts of interest in nuclear weapons policy analysis (2022)*.²⁶ A further problem was that all the leading think tanks and NGOs were in 'Western liberal democracies', which could potentially skew the research in that direction and demonstrate a limited appreciation of perspectives for non-Western sources. However, the criticism here is not of Western sources and societies discussing nuclear weapons too much. After all nuclear weapons represent the greatest threat to human civilisation, but rather other states, especially in Asia not discussing them enough.

3.5. The consensus challenge

However, it is not just the available funding which leads to its complexity, but the fact that the ability to reform existing agreements and initiatives requires consensus in organisations like the Conference on Disarmament, NPT Review Conference, IAEA General Conference and the CTBTO, which in most cases it is not possible. As a result, it is often easier for the NWS to start a new initiative or make a new agreement than to seek to reform an existing one. In chapters 7 and 8, in just a year following the Prague speech of President Obama, we saw: New START signed; the Moscow Summit, the establishment of the Bilateral Presidential Commission between the U.S. and Russia; the UNSC 1887 resolution on nuclear weapons; the launch of the P-5 process; the launch of the Non-proliferation and Disarmament Initiative; the launch of the International Nuclear Non-proliferation and Disarmament Commission; the first Nuclear Security Summit and the 64-point Action Plan as a result of the 2010 NPT Review Conference. This argument is problematic in one particular at the heart of the claims of this thesis, namely, if there is widespread agreement in the INWO why is achieving consensus outcomes such a challenge? This would be an area that would benefit from further research.

3.6 Security Dilemma of the INWO

²⁵ Aboukhater, H. and Hartung, W.D., 2024. Inside the Nuclear Weapons Lobby Today. *CounterPunch*.

²⁶ Egeland, K. and Pelopidas, B., 2022. No such thing as a free donation? Research funding and conflicts of interest in nuclear weapons policy analysis. *International Relations*.

Another indirect consequence of the Obama nuclear modernisation programme was to create a particular type of ‘security dilemma’ (Booth and Wheeler, 2008). Conventionally, the dilemma emerges between rival states because of the problem of accurately interpreting the motives, intentions, and capabilities of others. For many NWS, especially China and Israel, this opacity of their nuclear programmes and capabilities has been an essential part of their defensive strategy. In respect of the United States, however, everything there is to know about their nuclear programme is known because it is such an open society. During my research, I found the United States to be incredibly open, too open perhaps, about nuclear weapons. This transparency is augmented by the revolving door/rotation between senior officials in government, think tanks, and academia.

Therefore when the United States decides to embark on the largest investment in upgrading its nuclear forces, we do not need to rely on satellite images of silos in the desert—we can read all about it online in *The Nuclear Matters Handbook* thanks to the Office of the Deputy Assistant Secretary of Defense for Nuclear Matters.²⁷ You can find out details from hundreds of Congressional Research Reports listed online.²⁸ Nuclear Strategy is regularly reviewed and openly debated as part of the *Nuclear Posture Review* produced by the Department of Defense.²⁹ If you want to know what the organisation responsible for managing the nuclear weapons stockpile is working on and how it is performing against budget at the Los Alamos Laboratory, then the National Nuclear Security Administration will tell you³⁰. If you want to find out what the U.S. knows (or wants you to know it knows) about the nuclear weapons programme of China and how it is responding to the threat, then just read the 185-page DoD Annual Report to Congress on Military and Security Developments in the People’s Republic of China.³¹

The other side to this security dilemma is because the United States is so open about its nuclear programme, it can contribute to insecurity in the United States when others, especially China, are less so. There are dangers in ‘over-sharing’ but there are also corresponding dangers in not sharing at all. Greater transparency from China in relation to the expansion of its nuclear arsenal and nuclear doctrine would be a welcome and timely contribution to building trust between the P-5 and averting arms racing.

²⁷ DoD, 2022. ‘[The Nuclear Matters Handbook, 2020 \[Revised\]](#)’ accessed 6 March 2025

²⁸ Congressional Research Service Archive on ‘[Nuclear Weapons, WMD and Related Topics](#)’ accessed 6 March 2025

²⁹ DoD, 2022. ‘[Nuclear Posture Review and Missile Defense Review](#)’ published October 2022

³⁰ DoE, 2022. ‘[Performance Evaluation Report—Triad National Security, LLC](#)’ published 15 December 2022

³¹ DoD, 2024. ‘[DoD Annual Report to Congress on Military and Security Developments in the People’s Republic to China](#)’

3.7. Epistemological caution

Openness is admirable and unique in the INWO. Still researchers must remind themselves that when they study the INWO, they are doing so overwhelmingly from a U.S. perspective. This is not a criticism because, without American openness, there would be no story to tell. However, such openness can also create a 'security dilemma' amongst other NWS who can see how the U.S. is modernising its nuclear weapons and missile defence systems. It also creates a 'security dilemma' for NNWS because they can see that any words about seeking a 'World Free of Nuclear Weapons' are just that. We can see that the upgrade in nuclear forces is designed to extend the lifecycle of nuclear weapons for at least a further forty years³² demonstrating to the NNWS what they probably already knew: Any thoughts that the U.S., the de facto leader of the INWO, is planning on fulfilling its NPT Article VI obligations are a triumph of hope over experience. This, in turn, frees the other NWS to follow suit.

The final epistemological finding about the openness and transparency of the U.S. in nuclear matters is that we rely on the U.S. to tell us about their nuclear weapons programme, but also, they tell us about other states' nuclear programmes. How do we know what we know? As far as this researcher is aware: India, China, North Korea, Pakistan and Israel, five of the nine NWS, have never disclosed officially the scale of their nuclear weapons capabilities, and Russia has stopped sharing details with the U.S. as part of the verification process of New START in 2022. Yet, thanks to the U.S. DoD, Hans Kristensen and Matt Korda of the Bulletin of the Atomic Scientists and SIPRI we are told in precise detail how many nuclear warheads there are in the world, how many are deployed, which delivery vehicles they are using and even where they are located.³³ Another NGO based at Princeton is the International Panel on Fissile Materials,³⁴ funded by the MacArthur Foundation and Carnegie Corporation, also supply details on fissile material stocks. Rarely, if ever, do we see these assumptions challenged in the literature and it is right that researchers should retain a respectful scepticism, as with other uncorroborated sources of data.

³² Lawrence Livermore Laboratories, 2012. '[W-78 Life Extension Programme](#)' published March, 2012

³³ Hans Kristensen and Matt Korda of the Bulletin of Atomic Scientists who provide the research for the SIPRI Yearbook have previously explained their [methodology for estimating nuclear forces](#) in which they acknowledge the limitations of estimates and state: '*The USA publishes a large amount of such information. The UK, France and Russia publish some information, although Russia publishes considerably less than the other two. China, India and Pakistan publish very little information, while Israel and North Korea generally do not publish any detailed nuclear weapon-related information.*'

³⁴ [International Panel on Fissile Materials](#)

Of course, the answer would be for NWS to comply with the NPT 2010 Action Plan and tell us themselves. As discussed in Chapter 6, transparency actions were agreed upon under Action 5, 20, and 21 of the 2010 NPT Review Conference, and the UK has been responsive in publishing reports, but other NWS have been less so since 2015.³⁵ However, does transparency always build trust? Or are their dangers in ‘over-sharing’? This is an area which would benefit from more detailed research as assumptions concerning the size and capability of nuclear forces is a driver of arms racing and the security dilemma. This is also a key policy recommendation for the P-5 process. The value of the P-5 is that NWS can share information aware from the glare of public fora in an effort to build confidence and understanding. If P-5 states feel they cannot comply with undertakings which they freely agreed to at the NPT Review Conference (2010) then they should share this information in the P-5 process. The claim here is that in the INWO arms racing and security dilemma can be paradoxically caused by both not sharing enough and on the other hand sharing too much.

3.8. *Order v Justice?*

Another area in which the ES helps frame the argument being made in this research is the tension within international society between *order* and *justice*. Hedley Bull argued in his 1983 Hagey lectures, ‘in the matter of the distribution of nuclear weapons, questions of justice are less important than questions of order’ (Alderson and Hurrell, 2000: 219). Hence, whilst many would/do argue that the NPT is inherently ‘unjust’ because of the absolute proscriptions on NNWS acquiring nuclear weapons, the lesser obligation on NWS is only to pursue disarmament in ‘good faith’. Also, the arbitrary cut-off date for qualifying as an NWS of 1 January 1967 was designed to keep India out of the ‘legitimate’ nuclear club. In many ways, parallels can be drawn between the UNSC and the concept of ‘permanent member status’. However, the reality is that “states use international institutions to further their own goals, and they design institutions accordingly” (Koremenos et al. 2001: 762). This may be true, but states still need to cooperate with other states if they are unable to ‘further their own goals alone.’

This is central to the understanding of the INWO; even the most powerful state in the INWO, the United States, was unable to achieve its goals of nuclear security and nuclear non-proliferation, especially in relation to Iran, without cooperating with other states, especially Russia. This was evidenced through the interviews in which we found that the purpose of the Prague Speech of President Obama and the reproachment with Medvedev

³⁵ Gov.UK, 2021. ‘[UK National Report Pursuant to actions 5, 20 and 21 of the NPT Review Conference for the 10th NPT Review Conference](#)’

was threefold: to exert pressure on Iran not to develop a nuclear weapon and to control the threat of nuclear materials falling into the hands of non-state actors and the transit of U.S. military personnel and supplies across Russian territory into Afghanistan. The rhetoric may have been lifted from the Schulz, Kissinger, Perry and Nunn opinion in *The Wall Street Journal* (2007), but the reality was the 'binding forces' (Schouenbourg, 2012) of non-proliferation and nuclear security.

This was at the heart of how Hedley Bull defined 'order' as a 'pattern [of behaviour] that leads to a particular result, an arrangement of social life that promotes certain goals' (Bull, 197: 3-4). Yet the problem which the Eighteen-Nation Committee on Disarmament (ENCD) were seeking to solve (1965-1968) was not one of 'justice' but one of 'order' in a world which had five NWS but, unchecked, maybe a world of twenty to thirty. This was what William Walker described as the 'unprecedented *ordering imperative*' that the world of nuclear weapons had produced (2000, 705).

The embeddedness of the U.S. led, Soviet/Russian partnership in the INWO is highlighted by the fact that the ENCD was co-chaired by the United States and the Soviet Union, and they eventually produced a draft of the NPT, which clearly meant that the 'great powers' would exert 'greater influence'. As one Brazilian diplomat reflected on the ENCD, 'For the NPT, in my view, there were no negotiations at the ENDC. First, the Americans came with the draft. Then, the Soviets came up with a draft. And then they came with a joint proposal'³⁶. This is important as it makes clear that unless the U.S./Soviet leadership had placed its imprimatur on the ENDC the NPT would not have happened. This approach is the norm rather than the exception when it comes to the INWO. This compounded the frustrations of some; however, Hedley Bull would reflect that 'in this imperfect world any international order must be someone's order, and any order is better than none'³⁷ (Ayson, 2012:65). In short, the INWO does not claim to be *just*, but it does seek to be *orderly*.

4. Primary Institutions in the INWO

Classical primary institutions³⁸ operate within the INWO but some need to be interpreted in different ways to fit with the unique characteristics of the INWO:

³⁶ Cited in Gibbons, R.D. and Herzog, S., 2022. Durable institution under fire? The NPT confronts emerging multipolarity. *Contemporary Security Policy*, 43(1), p 59.

³⁷ Hedley Bull speaking at the Council on Foreign Relations 19 December 1963—cited by Robert Ayson (2012:65)

³⁸ Kalevi Holsti believed primary institutions had three elements: (i) patterned practices, (ii) coherent sets of ideas and/or beliefs, and (iii) norms, including rules and etiquette (Holsti 2004, 21–2)

4.1. War avoidance

By war, we mean 'organised violence among sovereign states', which is one of Hedley Bull's five classical primary institutions (1977: 178-193). Historically, in a system of anarchy, war can, in certain cases, be rational as a way of resolving conflict between sovereign states and establishing order. However, the notion of organised violence between sovereign states being acceptable/legitimate has diminished over time due to two trends in international society: First, the development of international law both customary and treaty based. For example, Article 2 (3) of the UN Charter states that all members agree to 'resolve international disputes by peaceful means', the only exception being in Article 51, which upholds the rights of states to 'collective self-defence' in the face of an armed attack. Article 93 of the UN Charter creates the International Court of Justice (ICJ) as the legal mechanism for resolving disputes and Article 94 binds all members of the UN to abide by its decisions. So, we have the growth and development of international institutions and international law which constrain the acceptability of war, but there is a second trend.

The reference to the importance of the primary institution of international law are implicit throughout the text. Several leading ES scholars have stressed this importance including Martin Wight who described international law as the 'essential evidence' behind the claim for the 'existence of international society' (Wight, 1979: 107). Terry Nardin argued that international society was not just 'regulated' by international law but was 'constituted by it' (Nardin, 1998: 21). James Mayall referred to international law as the 'bedrock institution on which the idea of international society stands or falls' (Mayall, 2000: 94). Indeed, the entire premise of the 'rationalist' approach of what became known as the English School was premised on the 'father of international law', Dutch jurist, Hugo Grotius (1583-1645). The only reason why it is not dealt with to the same extent as other primary institutions of the INWO is because it does not need to be understood as operating in distinctive ways in the INWO, which is taken here to strengthen its 'bedrock status'.

The increasing indiscriminate power of military capabilities being used against civilians, initially through aerial bombardment, the threat of which rose exponentially with the development of the atomic, and now the thermonuclear, bombs. This is contrary to the principles of international humanitarian law, namely, military necessity, distinction between combatants and protected civilians, and proportionality.³⁹ Even if the target of

³⁹ Gómez, J.G., 1998. The law of air warfare. *International Review of the Red Cross* (1961-1997), 38(323)

a nuclear attack was a military establishment, the effects of the detonation of 100kt-300kt warheads could not be contained within the blast site. Radiation would be carried across borders in the atmosphere into neutral states, poisoning fresh water supplies, destroying crops and livestock and causing famine.⁴⁰ Customary norms of international law include: The principle of discrimination--between military targets and civilians; proportionality; necessity; humanity—avoiding unnecessary suffering and neutrality—respecting human beings, the environment and property of neutral countries.⁴¹ The humanitarian consequences of nuclear weapons became a focus of the INWO at the 2010 NPT Review Conference, which concluded that:

The Conference expresses its deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons and reaffirms the need for all States at all times to comply with applicable international law, including international humanitarian law.⁴²

This statement on the humanitarian impact of nuclear weapons became the subject of multiple future joint statements on the ‘humanitarian dimension of nuclear weapons’ (2012/2013). In 2013, with the support of the ICRC, it developed into the Conference on the Humanitarian Impact of Nuclear Weapons in Oslo and, from there, ultimately to the TPNW.⁴³ Several of those interviewed expressed concern about how the increasing body of scientific opinion regarding the effects of nuclear weapons in causing a ‘nuclear winter’ were being downplayed or undermined by P-5 states, in which nuclear weapons are portrayed as ‘protecting citizens’ whereas the use of nuclear weapons would threaten the existence of citizens of NWS and NNWS alike. Indeed in an effort to address this the United Nations Secretary General has established (yet) another secondary institution, ‘The Independent Scientific Panel on the Effects of Nuclear War’.⁴⁴

⁴⁰ Helfand, I., 2013. Nuclear famine: two billion people at risk? Global Impacts of Limited Nuclear War on Agriculture, Food Supplies, and Human Nutrition. November 2013. International Physicians for the Prevention of Nuclear War (IPPNW).

⁴¹ Darnton, G. and Falk, R.A., 2020. *Nuclear Weapons and International Law*. 3rd edition. Durotriges Press. Pp. 5-6.

⁴² UN: ‘2010 Review Conference of the Parties to the Treaty on Non-Proliferation of Nuclear Weapons’ Final Document, NPT/CONF.2010/50 (Vol. I)

⁴³ For an overview of the humanitarian impact of nuclear weapons and the Humanitarian Initiative, see: Reaching Critical Will, titled ‘Unspeakable suffering: The humanitarian impact of nuclear weapons’, February 2013; Considine, L., 2017. The ‘standardization of catastrophe’: Nuclear disarmament, the Humanitarian Initiative and the politics of the unthinkable. *European Journal of International Relations*, 23(3), pp.681-702 and Ritchie, N., 2013. Legitimizing and delegitimizing nuclear weapons. *Viewing nuclear weapons through a humanitarian lens*, pp.44-75.

⁴⁴ UN, 2025. [Secretary General Announces Members of Independent Scientific Panel on the Effects of Nuclear War](#), 18 July 2025.

In his 1946 seminal essay, *The Absolute Weapon: Atomic Power and World Order*, Bernard Brodie wrote that ‘thus far the chief purpose of the military establishment has been to win wars. From now on its chief purpose must be to avert them’ (Brodie, 1946: 76). Hans Morgenthau believed that nuclear weapons represented the ‘first true revolution in foreign policy since the beginning of history’ and that ‘This rational relationship between violence as a means of foreign policy and the ends of foreign policy has been destroyed by the possibility of all-out nuclear war’.⁴⁵ This view was also held by Ronald Reagan, the 40th president of the United States at the height of the Cold War, in 1982 in an address to the nation on nuclear weapons, he said, ‘Those who’ve governed America throughout the nuclear age and we who govern it today have had to recognise that a nuclear war cannot be won and must never be fought’.⁴⁶

In January 2022, the leaders of the P-5 nuclear weapons states reaffirmed these same words in a joint statement.⁴⁷ Six weeks later, Vladimir Putin was invading Ukraine again.⁴⁸ Yet, for Barry Buzan, the paradox of nuclear weapons was that the ‘need to avoid [nuclear] war’ was built on a system of deterrence which required ‘credible threats of [nuclear] war’ (2023: 250).⁴⁹ This is because it is inconceivable that one nuclear attack would be the end of the matter, for the whole premise of Mutually Assured Destruction (MAD) would necessitate an assured second strike against the perpetrator. For these reasons, Joseph Cirincione described nuclear weapons as ‘unique in their destructive power and in their lack of direct military utility’.⁵⁰ Nuclear weapons have therefore become symbolic rather than strategic,⁵¹ and perhaps this is a reason why William Walker has observed, ‘nuclear affairs, despite their gravity, have lost the centrality that they attained during the Cold War,’ though this trend may now be reversing.⁵²

⁴⁵ Hook, S., Hughes, H.S., Morgenthau, H.J. and Snow, C.P., 1961. Western values and total war. *Commentary*, 32(4), p.280.

⁴⁶ President Reagan 1982, [Address to the Nation on Nuclear Weapons](#), 17 April 1982

⁴⁷ The White House, [‘Joint Statement by the Five Nuclear Weapon States on Preventing Nuclear War and Avoiding Arms Races’](#) 3 January 2022

⁴⁸ House of Commons Library Briefing (2024): [Russia’s Use of Nuclear Threats during the Ukraine War](#) by Claire Mills (No. 9825) 20 December 2024

⁴⁹ Buzan, B., 2023. *Making global society: a study of humankind across three eras*. Cambridge University Press.

⁵⁰ Cirincione, J., 2007. *Bomb scare: the history and future of nuclear weapons*. Columbia University Press.

⁵¹ Sauer, T., 2024. How Useful Are Nuclear Weapons in Practice? Case-Study: The War in Ukraine. *Journal for Peace and Nuclear Disarmament*, pp.1-17.

⁵² Walker, W., 2025. Reflections on complexity, nuclear ordering and disordering over time. *Cambridge Review of International Affairs*, p. 20

What does this tell us? First that the INWO is a unique order within the international order, because nuclear weapons are unique threat to humanity. Second, that conventional war continues to be a feature of the international order and a primary institution of international society, but nuclear weapons change the calculations and make war in the INWO not just unacceptable and unthinkable but also unwinnable and therefore irrational. In the INWO, the primary institution of 'war' needs to be understood in the context of 'war avoidance'. This is not to claim some seismic shift in a contribution to the ES and primary institutions: Hedley Bull implied as much in the first of his 'three changes to the institution of war since 1945' (1977/2002: 190) but did not make explicit because his argument was being addressed to order in world politics. That said, it is a distinctive finding as it holds that classical primary institutions can be applied to the INWO without the need to develop new specific fundamental norms and primary institutions as proposed by Smetana (2020).⁵³

4.2. Balance of Power

Lester Pearson, the former Canadian Prime Minister, said in 1955, "A balance of terror has now replaced a balance of power" in the world order (Gallois, 1961). However, the research question that this thesis sought to address was what does it mean to balance power in a nuclear context? In crude terms, conventional thinking would say that if the United States have 5000 nuclear warheads and Russia has 5500, and each has 1700 deployed ready for immediate launch, then a proximate balance of power/terror may be said to exist between them. But how do we assess the balance of power between the United States with 5000 nuclear warheads, 1700 deployed and China with 500 warheads and 24 deployed? Or between the United States and North Korea with 50 warheads? Martin Wight wrote that a balance of power existed when 'no power is so preponderant that it can endanger the others' (Wight, 2019:174). Yet, this is what nuclear weapons, and the strategy of nuclear deterrence are designed to do. Does this mean that there is no 'balance of power' in the INWO? No. But it does mean that it needs to be understood in different ways.

Hedley Bull wrote, 'the ability to strike at the other [power] with nuclear weapons....is a necessary condition of the balance of power between them.' (1977:116). It is precisely the capacity to 'endanger others' which makes a state possess even a single nuclear weapon in a power-balanced relationship with a state with 5000. Quantity is second to capability. One is enough. This is the reason why such significant efforts are deployed to

⁵³ Michal Smetana proposes new primary institutions of the international nuclear order including: (1) non-proliferation; (2) peaceful use; (3) disarmament; (4) deterrence; (5) military non-use; and (6) universality

stop states from acquiring them because once they have them, they are 'untouchable'. This is another way in which the INWO is unique.

This claim of NWS being 'untouchable' would seem to be backed up by empirical and theoretical evidence:

First, a prescient article by John Mearsheimer in 1993 titled 'The case for a Ukrainian nuclear deterrent'⁵⁴ in which he argued that a 'nuclear Ukraine was imperative to maintain peace between Russia and Ukraine' (1993: 50). The invasion of Iraq (2003) was on the pretext of stopping it from acquiring nuclear capability—the preventive war doctrine. The examination of President Obama's Prague Agenda revealed that the prime motivation for the rapprochement with Russia was to secure its support for thwarting Iran's nuclear ambitions. This correlates with the proposition that what holds the INWO together is horizontal non-proliferation and nuclear security and the role of balance of power, (and great power management) is to ensure it stays that way.

Second, the evidence points to nuclear weapons are most powerful in deterring actions rather than compelling actions. The concept of power is underexplored in the existing literature on the international nuclear order. Dahl's seminal article *The Concept of Power* (1957), he writes: "A has power over B to the extent that he can get B to do something B would otherwise not do" (Dahl, 1957: 101-102). In the nuclear context, as Russia is finding out in Ukraine and the U.S. found in Afghanistan, nuclear weapons are limited in their impact to compel submission of a determined adversary; however, as North Korea knows and Iran believes, they can be very effective in deterring 'A' from something they might otherwise do to 'B'. As Kenneth Waltz put it, in a nuclear world, 'force is more useful than ever for upholding the status quo, though not for changing it, and maintaining the status quo is the minimum goal of any great power' (1979: 191).

Third, the most frequent driving force for why states acquire nuclear weapons has been, and continues to be, 'security' rather than 'prestige'—Sara Kutchesfahani argues that security was the sole motivation for the United States, Soviet Union, China, Israel and North Korea in acquiring nuclear weapons. In the case of the United Kingdom, France and India combined security with prestige (2019: 106). Sir Winston Churchill said, "It's the price we pay to sit at the top table."⁵⁵ Harold Macmillan said the nuclear bomb "put us where we ought to be, in the position of a Great Power" and for Charles de Gaulle,

⁵⁴ Mearsheimer, J.J., 1993. The case for a Ukrainian nuclear deterrent. *Foreign affairs*, pp.50-66.

⁵⁵ Maguire, R. (2012) '[Never a credible weapon: nuclear cultures in British government during the era of the H-bomb](#)' published in *The British Journal for the History of Science* Vol. 45, No 4 (page 522)

nuclear weapons were a means of securing France's position as a great power whilst it was losing its colonies in Asia and Africa⁵⁶. Most recently, Tony Blair recalled the principal reason for renewing Trident was because it was "too big a downgrading of our status as a nation" (2010: 636).⁵⁷

This is not to downgrade the prestige in balance of power calculations with a kind of diplomatic vanity; it can have real intrinsic value. Wight said, "Prestige is the halo around power" and "because prestige is not only something that other people recognise, but also something you assert, wisely or unwisely, necessarily or unnecessarily" (1979: 97-98). The point being that nuclear weapons are a complicating factor in the classical understanding of the primary institution of balance of power calculations in the INWO and require a modified interpretation to be correctly understood and applied. The complication is in the nature of the 'power' which is being deployed either to 'balance' or to 'manage'. It is a unique power not based on quantity but capability, not based on use but on perception of the threat of use.

4.3. Great power management (GPM)

For Barry Buzan the primary institution of Great Power Management was, along with War, a 'derivative' of 'Balance of Power' in his 'nested hierarchy of international institutions' (2004: 184). Of course, much has changed since 2004 in geopolitics and especially in relation to the great powers. In an interview with Barry Buzan (Interview: 10 October 2023) it became clear he regarded that the changes necessitated a certain refreshing of the nested hierarchy and that this may no longer be the case. The refresh of the idea was expanded upon in his most recent publication *Making Global Society* (2023) in which GPM is no longer derivative of Balance of Power (2023: 15) although there are 'close links' between associational balance of power and GPM (2023: 253). This may apply to the social development of humankind but does it fit GPM as observed in the INWO?

Hedley Bull believed that insofar as great powers sought to avert a nuclear war between themselves, they were accepting responsibly as 'trustees for mankind' (1977: 288). However, not all nuclear weapons states would be considered 'great powers' in the context of GPM. Hedley Bull suggests that the criteria are recognised by others and conceive themselves to have 'special rights and duties' to maintain order in international society (1977: 196). Hence, Napoleonic France or Nazi Germany would not be recognised

⁵⁶ De Weck, J., 2025. Europeanizing France's *force de frappe* published on Pariscope published by Internationale Politik 13 February, 2025.

⁵⁷ Allen, D. (2011). New Labour and Nuclear Weapons. In: Daddow, O., Gaskarth, J. (eds) British Foreign Policy. Palgrave Macmillan, London

as ‘great powers’ in the GPM sense according to Bull. This fits with what we find in the INWO: though North Korea, Pakistan and Israel may possess the ‘great material power’ of nuclear weapons, they do not regard themselves and they are not recognised by others as having responsibilities for the INWO.

Barry Buzan noted ‘The key here is not what states say about themselves and others but, but how they behave in a wider sense, and how that behaviour is treated by others’⁵⁸. Sir Lawrence Freedman told me in the context of nuclear weapons, ‘I think great power does carry a special status, but a lot of those who are great powers tend to concentrate more on the *greatness* than the *power*’ (Interview: 12 October 2023). This may be true in the INWO context of GPM that great powers are interested more in the *great* than the *power* or the *management*. They are more conscious of the privileges of the status than the responsibilities which come with it. This exposes a tension with the ES concept as R.J. Vincent expressed it, “Great powers were burdened by responsibility as much as benefited by power, and theirs was a role that had to be played” (1990: 62–63). There were few examples of the great nuclear powers being in any sense ‘burdened’ by a sense of responsibility. Yet, there were some:

In November 2009 President Obama held a joint press conference with President Hu Jintao in Beijing. Obama set out three global challenges: nuclear proliferation, climate change and economic recovery (the ordering of the challenges is in itself of interest to this study). Obama insisted that none of these could be solved by either state acting alone and invited China as a growing economy to accept ‘greater responsibilities’ for the global challenges they faced (Bukovansky et al, 2012: 1).⁵⁹ I was told that the United Kingdom saw its special responsibility as a depository state for the NPT as a reason for advocating the P-5 process. The Prague Agenda began with President Barack Obama declaring in Hradčany Square ‘As the only nuclear power to have used a nuclear weapon, the United States has a moral responsibility to act’ [to achieve a world without nuclear weapons]. Again at the conclusion of the first Nuclear Security Summit, President Obama said, “When the United States fulfils our responsibilities as a nuclear power...[we] ensure that other nations fulfil their responsibilities.”⁶⁰ China will often present itself in

⁵⁸ Buzan, B., 2004. *The United States and the great powers: World politics in the twenty-first century*. Polity. P.67

⁵⁹ The White House, 2009. [U.S.-China Joint Statement](#), 17 November 2009 cited in Bukovansky, M., Clark, I., Eckersley, R., Price, R., Reus-Smit, C. and Wheeler, N.J., 2012. *Special responsibilities: Global problems and American power*. Cambridge University Press.

⁶⁰ “[An enormously productive day](#)” White House blog by Jesse Lee—13 April, 2010

international forums as a 'responsible nuclear weapons state'⁶¹ and cite its role in the Six-Party Talks on North Korea, the JCPOA and in maintaining the P-5 process, along with its No-First-Use policy as examples of this⁶². The 'self-declaration' of responsibility is not set at a high threshold, even Kim Jong Un declared "Our republic is a responsible nuclear state".⁶³

That said, great power responsibility was one of the most problematic concepts for the research. It is often claimed that 'great powers have great responsibilities' but what is less clear is how respective great powers are to discharge those responsibilities. In his paper, *The Great Irresponsibles?* Hedley Bull wrote, 'Great powers cannot expect to be conceded special rights if they do not perform special duties' (1980: 446). What was not clear was how special rights were to be withdrawn if those duties were not fulfilled as is the case today.

4.3.1. Responsibility

Responsibility featured heavily in the interviews with Professor Nicholas Wheeler and Sebastian Brixley Williams of BASIC, Professor Nick Ritchie, Professor Andrew Hurrell, Professor Mary Kaldor and Lord Des Browne, who were all British. Was there a cultural dimension to this in seeing ourselves as 'a responsible great power'? The phrase would crop up often in UK statements in international forums e.g. Matthew Rowland to the UNGA (2016) 'as a responsible nuclear weapons state, the UK...'⁶⁴ William Walker noted that 'the British government has, through steps taken over many years, sought to position the UK as the most responsible of all nuclear-armed states'.⁶⁵ In Nick Ritchie's assessment, 'The framing of Britain as a 'responsible' and reluctant nuclear weapon state reflects Britain's wider self-identity as a responsible and reliable major power committed to defending and promoting universal values.'⁶⁶

⁶¹ Leveringhaus, N. and De Estrada, K.S., 2018. Between conformity and innovation: China's and India's quest for status as responsible nuclear powers. *Review of International Studies*, 44(3).

⁶² Hua Han, 2016. '[China the increasingly responsible nuclear stakeholder](#)' published in the Bulletin of Atomic Scientists—25 October 2016

⁶³ Associated Press, News Report, 2016. '[Kim Jong Un says North Korea will not use Nukes first](#)' published 8 May 2016.

⁶⁴ Ambassador Matthew Rowland, UK Permanent Representative to the Conference on Disarmament, '[Statement on Nuclear Weapons](#)' to 71st UNGA First Committee, 14 October 2016

⁶⁵ Walker, W., 2010. The UK, threshold status and responsible nuclear sovereignty. *International Affairs*, 86(2), p 450.

⁶⁶ Ritchie, N., 2007. [Trident and British identity: Letting go of nuclear weapons](#) published by the University of Bradford p. 12

Yet, in their report on *Nuclear Responsibilities* (2020) Brixley-Williams and Wheeler urged NWS to 'discard the language of 'responsible nuclear weapons state' in its various forms⁶⁷ because of the negative perceptions such a self-identification had for NNWS for whom possession of nuclear weapons could never be deemed a responsible act. In some ways, Hedley Bull's simple message that nuclear weapon 'Haves' should exercise 'discipline and restraint'⁶⁸ is about as clear as it gets. Just because a NWS *can* do something does not mean it *should*. An example of restraint would be the UK and France have a 'veto' in the UNSC as permanent members, but since 1989, they have not used it, conscious of the need to preserve the legitimacy of their privileged status within the UN system. A future meeting of the P-5 process could usefully contemplate what they believe is meant by responsibility in the context of the INWO

4.3.2. *The GPM Scorecard of the INWO*

In chapter 6 we looked at who are the Great Powers in the context of the INWO. We considered a variety of measures of 'ranking power' (Table 4), and I have suggested the United States is pre-eminent.⁶⁹ I made the argument that in the INWO with the United States anything was possible, but without them, nothing was possible. Russia, by its vast nuclear arsenal and influence, would be included as they would regard themselves as 'responsible participants' in the INWO, but we have also seen the use of irresponsible nuclear threats.⁷⁰ As stated, the United Kingdom would see itself in this regard and would be recognised as such by others; as such, it could convene the P-5 for its first confidence-building dialogue in London. China would view itself as a responsible, however, they refuse to be transparent about the status of their nuclear forces or to engage in negotiations on disarmament. To a lesser extent, France, in respect of its standing as the only nuclear-armed EU state and India, because of its role in the Non-aligned Movement (NAM). Although like China, India does not disclose details of its nuclear capabilities but does have a No-First-Use nuclear doctrine. I would argue that Japan, although not a NWS

⁶⁷ BASIC, 2020. [Nuclear Responsibilities: A new approach for thinking and talking about nuclear weapons](#) by Nicholas Wheeler and Sebastian Brixley-Williams published November 2020; see also Spilman, A., Wheeler, N.J. and Brixey-Williams, S., 2019. [Common Security Through Nuclear Responsibilities](#) published by BASIC

⁶⁸ Bull, H., 1969. The twenty years' crisis thirty years on. *International Journal*, 24(4), p. 637

⁶⁹ Martin Wight has suggested that a system where one state 'asserts paramouncy or supremacy is a suzarian-state system' (1977) see chapter 1; others have described U.S. 'pre-eminence' as hegemonic (Ritchie, 2019, Clarke, 2009 and Gibbons, 2016). In this analysis the terms 'pre-eminence' 'hegemonic' and 'pre-eminence' have been used somewhat interchangeably, but what constrains claims of U.S. hegemony is that that the U.S. still requires the support of chiefly the Russia in order to achieve its goals.

⁷⁰ Pravda News Report, 2025. '[Statement by the Deputy Minister of Foreign Affairs of the Russian Federation Sergey Vershinin at the high-level segment of the Conference on Disarmament](#)'—28 February 2025

is recognised by others and does see itself as having special responsibilities in the INWO as illustrated most recently when it hosted the G-7 Summit in Hiroshima (2023). During the research, there was significant work and debate about the composition of the leadership/GPM. The view was it was increasingly becoming a P-3 (U.S., U.K. and France) and a P-2 (Russia and China) of the INWO with many suggesting seeking to include India and Pakistan in the P-5, most recently VCDNP.⁷¹ Dr Rebecca Davis Gibbons told me that the ‘inclusion of India and Pakistan’ could be a way of breaking the deadlock on the FMCT negotiations (Interview: 21 November 2023). But should membership be limited to states, or could organisations be included too?

4.3.3. GPM and secondary institutions

It has been noted that in respect of the JCPoA, the negotiations involved two institutions in addition to the initial seven states—the EU and IAEA. Both played a crucial role in reaching an agreement, and the Roadmap Agreement between Iran and the IAEA remains its most important verification guarantee. Meeting with diplomats and officials in Vienna it was pointed out to me that as the host the IAEA had a vital role to play in the INWO given that all NWS except for North Korea⁷² are members of the IAEA. During the interview phase of the research, I found the IAEA to be universally admired and respected. The IAEA received the Nobel Peace Prize in 2005 when under the leadership of Mohamed ElBaradei. Indeed the fear was that the political rivalry which was rendering organisations such as the UNSC, Conference on Disarmament and the NPT Review Conference unworkable could spread to Vienna with potentially catastrophic consequences for the safeguarding and monitoring work of the Vienna institutions including the Comprehensive Test Ban Treaty Preparatory Organisation (CTBTO) and the International Monitoring System (for nuclear tests); Nuclear Suppliers Group (NSG) and the Zangger Committee as well as the IAEA. I was told that ‘Vienna is the nuclear security nerve centre and if it became contaminated by great power politics like New York and Geneva, it would represent the greatest threat to the nuclear order since 1945’⁷³.

4.3.4. ‘Goodnight Vienna’?

One leading nuclear thinker felt that an essential dimension of great power responsibility was to respect and uphold the integrity of international institutions such as the IAEA

⁷¹ VCDNP, 2025. [‘Reimagining Risk Reduction’](#) by Nikolai Sokov, Sahil Shah, David Santoro and Miles Pomper published February 2025

⁷² North Korea joined the IAEA in 1974 but withdrew in 1994 after inspectors found it to be in non-compliance with the safeguards agreement.

⁷³ Interview with senior diplomat serving in Vienna

(Interview: 21 November 2023). This is an important observation because the ES has been labelled 'institutionalists' (Suganami, 2003: 253) for the importance they attach to investigating their role in international society. Not just secondary (organisations) but primary also (Buzan, 2004). Could the challenge to 'preserve the integrity of institutions' be extended to their 'primary' counterparts? Or are primary institutions simply 'intersubjective understandings'⁷⁴ (Wendt and Duvall 1989: 53) whilst their secondary counterparts are intentional creations for a specific purpose? It is easier to see a direct fit with international law, diplomacy, sovereignty and great power management than balance of power and war, but all primary institutions involve 'norms, including rules and etiquette' (Holsti, 2004: 21–2). For this research, the question was whether the institutions of the INWO were distinctive from those of other orders in international society. The answer was that certain primary institutions, such as war, balance of power and great power management, need to be understood and applied in different ways within the INWO. A question which would merit further research is whether breakdowns in international order begin with primary or secondary institutions or whether primary institutions are simply constitutive and 'functional' (Schouenborg 2014: 80) in the existence of international society. Logic would suggest that if strong primary institutions create secondary institutions, then weak primary institutions undermine even the strongest secondary institutions.

5. Case studies: Lessons learned

5.1. Prague Agenda

The central argument, based upon the evidence gathered for the Prague Agenda, was that the Agenda was misunderstood and, therefore, misjudged as a failure in the literature. Those who viewed the Prague Agenda as synonymous with the parallel agenda of George Schultz et al.⁷⁵ set out in their seminal *Wall Street Journal* (WSJ) article, 'Towards a World Free of Nuclear Weapons' (January 2007), would rightly view it as a failure because as discussed, it ended with the largest modernisation of U.S. nuclear forces in history and contributed to a new arms race between NWS. However, tracing the origins of the Agenda back through Barack Obama's work with Dick Lugar on the U.S. Senate Committee on Foreign Relations, it became clear that the Agenda was heavily influenced by visits they made to Russia, Azerbaijan and Ukraine in 2005 as part of the Nunn-Lugar Initiative. Obama was deeply concerned about the security surrounding nuclear materials and the reports that terrorist groups, especially al-Qaeda were seeking

⁷⁴ 'Involving or occurring between separate conscious minds' Merriam-Webster Dictionary

⁷⁵ Co-authors Henry Kissinger, William Perry, and Sam Nunn

to acquire them. On their return they worked on the Lugar-Obama Disarmament Initiative aimed at strengthening both the Global Initiative to Combat Nuclear Terrorism (GICNT) and the Cooperative Threat Reduction Programme (Nunn-Lugar). Therefore, the core of President Obama's vision for Prague was nuclear security and nuclear non-proliferation, which are also, as we have discussed the two strongest binding forces of the INWO. Obama described himself as a 'realist' (Goldberg, 2017) and it was suggested he was 'embarrassed' by receiving the Nobel Peace Prize.⁷⁶ When President Obama reflected upon the Prague Agenda, he saw the Nuclear Security Summits and the JCPoA as its most important achievements.⁷⁷

What was an initially counter-intuitive finding of the research on the Prague Agenda was the long track record that Barack Obama had in believing it was important to engage in dialogue with Russia. We noted how, as a twenty-two-year-old student at Columbia University, he criticised the Reagan Administration for not engaging more constructively with the Soviet Union.⁷⁸ As a Senator in 2005, Obama criticised the Bush Administration for not engaging more fully with Russia. He believed in dialogue and the importance and responsibility of engagement. However, it was engagement with a purpose. As Michael McFaul, Obama's senior adviser on Russia, recounted, 'Improved relations with Russia was not the *goal* of the reset. Rather, deeper engagement was defined to achieve American security and economic objectives (2019: 90). Those objectives were threefold: First, to secure Russian support for increasing pressure on Iran to halt its pursuit of nuclear weapons. Second, to secure permission from Russia to transport U.S. armaments, supplies and military personnel across Russian territory to support the 'surge' in Afghanistan. And third, to start negotiations on a New START treaty, which was due to expire in 2010. In return, Russia wanted the U.S. to first abandon its missile defence plans for Poland and the Czech Republic, second, lift sanctions on Russian arms manufacturers and third, support Russia's bid for WTO membership. This bargaining⁷⁹ underpinned the U.S.-Russia decision to press the 'reset button' in their relationship⁸⁰ and was the basis of President Obama's version of the Prague Agenda. judged by these criteria, the Prague Agenda was a success. This would also fit with Barry Buzan's claim that the 'sole

⁷⁶ Voice of America, 2016. [Years Later Obama's Peace Prize still Tangled in War Debates](#), by Associated Press—published 6 October 2017.

⁷⁷ The White House, 2017. [Fact Sheet: The Prague Agenda](#)—11 January 2017

⁷⁸ 'Breaking the War Mentality' by Barack Obama—10 March 1983—published in *Sundial* vol 7, No 12

⁷⁹ For an in depth analysis of the history of bargaining between the U.S. and Soviet Union in nuclear arms negotiations see: Myrdal, A., 1976. *The Game of Disarmament: How the United States and Russia Run the Arms Race*, published by Pantheon. Especially Chapter 2.

⁸⁰ Ulyanov, I., 2015. *Assessing The Obama–Medvedev Reset in US–Russia Relations. E–International Relations*

superpower' (the U.S.), 'will act unilaterally when it can and will prefer bilateral to multilateral diplomacy'.⁸¹

5.2. The P-5 process

If there is one lesson, we can observe in both the Prague Agenda and the P-5 process, it is that in politics as in humour—timing is everything. Both initiatives benefited from the 'mood music' of the *WSJ* opinion by Schultz et al (January 2007) advocating a 'World free of nuclear weapons' (WFNW). For the British, there was another strong driver which came out of the vigorous internal debate within the Labour Party regarding the renewal of Trident. In May 2006, Margaret Beckett was appointed as Foreign Secretary and Des Browne was appointed Secretary of State for Defence. Their first task was to prepare the White Paper on the renewal of Trident jointly. Des Browne had asked then Prime Minister Tony Blair on appointment if he could use the role to do more on nuclear disarmament and this was agreed to. In the context of offering a 'sweetener' to the bitter pill of Trident renewal⁸² for the Labour Party, Tony Blair also announced along with the White Paper that the number of UK operational nuclear warheads would be reduced from 'up to 200' to 'up to 160'.⁸³

The White Paper, when it was presented to Cabinet in November 2006, recommended renewal, and the Cabinet agreed, though Blair later recorded that the decision could have gone either way and that deciding not to renew 'would not have been a stupid decision'. Ultimately the decisive point was that giving it up was "too big a downgrading of our status as a nation, and in an uncertain world, too big a risk for our defence" (Blair, 2010: 636). The Parliamentary Labour Party was similarly divided in its opinion, and when the White Paper, *The Future of the United Kingdom's Nuclear Deterrent* (Cm. 6994), was put to a vote, the Labour government suffered one of its largest rebellions with 87 Labour MPs voting against renewal. It was against this backdrop and with the *WSJ* opinion article advocating WFNW and with the election to succeed Tony Blair underway in May 2007, with Gordon Brown the clear favourite, that the drive to do more on disarmament gathered pace.

The seminal moment was a speech by Margaret Beckett as Foreign Secretary to the Carnegie International Non-proliferation Conference in June 2007 in which she raised the prospect of NWS working more closely together on disarmament, stating, "If we are

⁸¹ Buzan, B., 2004. *The United States and the great powers: World politics in the twenty-first century*. Polity. P. 93

⁸² BASIC, 2014. [UK Trident Replacement: The Facts](#) published June 2014

⁸³ BBC News Report, 2006. [Blair's Trident Statement in Full](#) published 4 December 2007

serious about complete nuclear disarmament we should begin now to build deeper relationships on disarmament” and offered engagement with “other members of the P-5 on transparency and confidence building measures”. It was a courageous and bold speech, perhaps too bold, as just three days later, Margaret Beckett was replaced as Foreign Secretary by David Miliband under new Prime Minister Gordon Brown. But the speech, often overlooked, was seen as very significant by those officials, advisers and ministers I interviewed about the origins of the P-5 process. It represents a widening of the understanding of the origins of the process which has hitherto been located in the address of Des Browne as Secretary of State for Defence to the Conference on Disarmament (CD) in February 2008. Browne’s speech was very significant, but it was a development of the idea proposed by Beckett in June 2007. In my interview with Lord Des Browne, he told me: “..we wanted to go [to the CD] and make a speech which was supportive [of Beckett’s Carnegie address]. I wanted to show that the FCO had not gone offline, but there was a hard-nosed element to this, and the military supported it” (Interview: 21 November 2025).

Another significant finding of the research, drawn primarily due to an interview with Dame Mariot Leslie who was Director General of Defence and Intelligence at the UK Foreign Office and who took the lead in implementing the P-5 process proposal, was that there was a significant amount of patient diplomacy which went into bringing the other members of the P-5 on board. Each state is required to have the P-5 process proposed in a particular way to make it acceptable to them. For Russia, the timing of the U.S. Framework Agreement (April 2008) was very helpful in reducing tensions between the U.S. and Russia, and they were beginning to work together and meet on the Global Initiative to Combat Nuclear Terrorism.⁸⁴

For China, which had been, and continues to be, highly secretive about its nuclear weapons programme, it was a time of growing confidence and engagement as they prepared to host the Olympics in 2008 and had played a constructive role in the Six-Party Talks aimed at halting North Korea’s nuclear programme.

For France, it was accompanied by a major speech by President Sarkozy at Cherbourg, when he declared that France was going to take the lead in nuclear transparency.

The United States was “one of the most difficult of the P-5 to get on board”, mostly because, it is speculated, of a subliminal belief that initiatives in the nuclear space emerge from Washington, not London. However, it would have been difficult for them to

⁸⁴ The White House, 2008. Fact Sheet: [U.S.-Russia Strategic Framework Declaration](#) ,6 April, 2008

dismiss their closest nuclear military ally, especially when they had just taken a difficult decision to renew Trident, but the tipping point for the U.S. was the prospect of getting to discuss nuclear matters face-to-face with the Chinese.

This is important for the overall argument of the thesis for two reasons: First, it shows how initiatives aimed at disarmament move at a glacial pace, but initiatives aimed at non-proliferation and nuclear security can be ready very quickly. Second, it shows that whilst there may have been a 'common interest' in the P-5 seeking to get their 'story straight' for the 2010 NPT Review Conference, all participants needed to be assured that the initiative would fit with their national interests first. As Muthiah Alagappa put it, order is, 'rule-governed interaction among sovereign states in their pursuit of individual and collective goals.'⁸⁵

Still with all states squared and 'on board' it was not until the Prague Agenda was launched in April 2009 that the 'P-5 process' got the final go-ahead. It is claimed here that were it not for the Prague Agenda, the P-5 may never have got airborne. The initiative was formally announced by Gordon Brown in the policy paper *The Road to 2010: Addressing the Nuclear Question in the Twenty-first Century* (Cm 7675) in July 2009, with the first meeting being hosted by the UK in London in September 2009. That said, I have argued that the P-5 process was never regarded as part of the Prague Agenda, and this quasi-independence may be a reason why it continues to exist, albeit at a scaled-down version since 2022.

5.2.1. Future of P-5 process?

The United States became increasingly impatient with its slow progress, preferring to direct its energy to the Nuclear Security Summits. Dr Chris Ford, Assistant U.S. Secretary of State for International Security and Non-proliferation told a conference at Wilton Park, "I would urge you not to read too much into the mere fact of meetings accruing among the five.....meetings per se are just that: meetings. The name of the game should be to achieve substantive progress" (2019). This was echoed by a European diplomat familiar with the P-5 process who told me the P-5 process was regarded in Geneva as a 'Hamster wheel, generating lots of activity with the intent of conveying the illusion of progress'. The U.S., instead of seeking to reform the P-5 process, followed a familiar practice of the INWO, which, rather than seeking to make the P-5 process more effective, launched a new initiative, CEND (Creating the Conditions for Nuclear Disarmament), adding to the 'baffling

⁸⁵ Alagappa, M., 2003. *The study of international order: An analytical framework*, in *Asian security order: Instrumental and normative features*, (Stanford: Stanford University Press) p.39.

complexity' of the INWO in the process. Then, in 2023, as CEND drifted, U.S. National Security Advisor Jake Sullivan proposed a new nuclear arms negotiating body for the U.S., Russia and China, without preconditions, but China rejected this.⁸⁶

Perhaps, the most damning critique of the P-5 process came from Lord Des Browne, its co-creator and earliest champion. Lord Browne told a House of Lords Committee in 2019 that he was “extremely disappointed” by the P-5 process, adding:

I thought I was creating a dynamic for disarmament and peace, and what I created was a cartel—a group of Nuclear-Weapons States that in many other ways could not bear the sight of each other, but when it came to the common ownership of nuclear weapons were very good at articulating an argument as to why they needed nuclear weapons only because the rest of the world did not behave itself well enough (HL,2019: 37).⁸⁷

This assessment and those of others may be unduly pessimistic. There was much cynicism voiced when the P-5 issued their famous re-statement ‘that a nuclear war can never be one and must never be fought’, and then six weeks later, Russia invaded Ukraine (again). Yet, unlike many initiatives announced in the Prague Agenda, the P-5 process is still meeting. In the current bellicose state of politics within the INWO, it can be reassuring that as recently as December 2024, the P-5 met at the official level for a “candid discussion of nuclear doctrines” according to the Chinese MOFA.⁸⁸

The UK will take over the Chair of the P-5 process leading up to the NPT Review Conference in 2026. This may not be the last chance for the UK to rediscover its sense of purpose and restore the confidence eroded with NNWS in the NPT, but it is a good opportunity to do this.⁸⁹

6. Limitations of the research

Invariably, a piece of research has limitations. The objective of the research is to examine carefully the existing literature and, mindful of your own limitations, seek to make a contribution to the literature as a whole. The aims were therefore sharpened to shed light on the international nuclear order by focusing on the weapons which were exceptional and made the order unique. However, an alternative approach could have been to reach

⁸⁶ Pirnavskaia, K., Faust, J. and Simonet, L., 2024. One Year After Jake Sullivan’s Speech at the Arms Control Association: The White House Arms Control Initiative Through Harvard’s Negotiation Lens. *Journal for Peace and Nuclear Disarmament*, 7(2), p.518

⁸⁷ House of Lords Select Committee, Seventh Report of Session 2019-2019: ‘Rising Nuclear Risk, Disarmament and the Nuclear Non-proliferation Treaty (HL Paper 338) published 24 April 2019

⁸⁸ Ministry of Foreign Affairs, PRC, 2024. ‘[China Chaired P5 Meeting on Nuclear Doctrines](#)’ 10 December

⁸⁹ Bates, Lord. 2025. [Contribution to the Debate on the Strategic Defence Review regarding prospects for UK leadership of the P-5 process](#), 18 July 2025

outside the nuclear world altogether and compare the nuclear order with those, say, in climate change and global finance. This approach was effectively undertaken by Mlada Bukovansky et al. (2012) in their study of special responsibilities and global problems. Such an approach would have enabled a more holistic test for the claims of the classical institutions. For example, do the classical primary institutions of balance of power, great power management and war need to be understood differently in other orders of international society? In other words, if the INWO as exceptional as claimed?

There was then the question of the selection of Hedley Bull's definitions of 'primary' institutions and his work, *The Anarchical Society: A study of order in world politics* (1977) as the foundational text of the English School. Bull was writing very much in the context of the Cold War with the roots of its thinking in the British Committee of the 1950s. It could be a criticism that, as both the case studies were initiatives of the post-Cold War globalising era, a more appropriate foundational ES text would be Barry Buzan's *From International to World Society (FIWS): English School theory and the social structure of globalisation* (2004). Chapter 6 of FIWS provides some strong and clear arguments for understanding a broader selection of primary institutions (2004: 184) and contemporary secondary institutions (2004: 187). FIWS centres on a great debate amongst the ES between pluralist and solidarist perspectives of international society (2004: 139-160). Its publication in 2004 was within reach of the contemporary events described in the case studies. FIWS could have been a strong basis for the choice of primary institutions by using the nested hierarchy model. A similar claim could be made for exploring order through the lens of William Walker's seminal work on nuclear weapons and the international order, *Perpetual Menace* (2012). It was an extraordinary privilege to be able to interview both Barry Buzan and William Walker for the research, and I was subsequently clear that there would have been strengths in using these texts as a theoretical framework, and by inference limitations in not doing so. As it turned out, the disadvantages have perhaps been reduced in the fact that since 2022, we seem to be returning to the international order more familiar to that which Hedley Bull described. Perhaps the greatest disappointment of the research was the inability to access the Academic Papers of Professor Hedley Bull (1932-1985) held by the Bodleian Library (Special Collections) due to GDPR/Data Protection Act (2018) restrictions in place at the time.⁹⁰

⁹⁰ The collection was catalogued by Professor Andrew Hurrell in 1999. Extensive analysis of the collection was undertaken by Ayson, R., 2012. *Hedley bull and the accommodation of power*. Springer, which was an invaluable recourse for the research.

A final limitation of the research was the selection of the case studies. The selection was criticised by some scholars who were interviewed. Their criticism was that the case studies were too similar in time and construct. Ideally, if the claim was that what held the INWO together was by a shared common interest of 'non-proliferation', or that it was a U.S. led order, then the other case study should seek to show an example of where this was not the case. Earlier drafts of the research design proposed examining the Prague Agenda and the role of the Republic of Ireland in the creation of the Non-proliferation Treaty by posing what became known at the UN as the 'Irish question'.⁹¹ This case study would have shown a different perspective on great power management and the interaction with the secondary institutions of the UN General Assembly and the IAEA. It would have contrasted the role of great powers with nuclear weapons and permanent seats on the UNSC with relatively smaller states armed 'only' with greater moral authority. They would have required different research methods; the Prague Agenda being based on research interviews, and the other historical research of primary sources. It also highlighted a problem that was experienced in the early stages of the research in consulting archives, namely that often materials relating to nuclear weapons were shrouded in secrecy. In the end, the P-5 process and the Prague Agenda turned out to be less similar than first thought. Also, by selecting case studies that were within recent memory it was possible to secure interviews with some of the key actors and this became a strength of the research and a key contribution to the literature.

7. Concluding reflection

We began by reflecting on what British novelist C. P. Snow wrote on the front page of *The New York Times*, that unless the nuclear powers drastically reduced their nuclear armaments, thermonuclear warfare within the decade was a "mathematical certainty." Forty-five years later, Thomas C. Schelling used Snow's quote in his Nobel Prize acceptance speech for the 2005 prize in economics, stating: The most spectacular event of the past half century is one that did not occur. We have enjoyed sixty years without nuclear weapons exploding in anger.⁹² The 'spectacular event' to which Schelling referred has now been extended by another twenty years to eighty. Why?

⁹¹ For a good overview of this initiative see: Chossudovsky, E.M., 1990. The Origins of the Treaty on the Non-Proliferation of Nuclear Weapons: Ireland's Initiative in the United Nations (1958-61). *Irish Studies in International Affairs*, 3(2), pp.111-135.

⁹² Schelling, T. C., 2005. [An Astonishing Sixty Years: The Legacy of Hiroshima](#) published by the Nobel Prize Organisation

Professor Benoît Pelopidas had a simple, one-word answer for that phenomenon when I interviewed him for my research— “luck”.⁹³ The world, because of six million years of human evolution, now possesses the means of its own destruction and has placed the fate of the Earth in the hands of nine men. Of course, in the hands of each possessor State, they represent a reluctant but reassuring ‘minimum independent nuclear deterrent in a dangerous world’, and in the hands of others, they represent ‘indiscriminate and unacceptable weapons of mass destruction’; one state’s ‘irresponsible nuclear proliferation’ is another state’s ‘nuclear sharing’ and one state’s ‘slaughter of the innocents’ is another’s ‘collateral damage’.

We are moral tribes bound together by an acute sense of self-righteousness into ‘imagined communities’,⁹⁴ each with its own carefully selected ‘chosen glories’ and ‘chosen traumas’ (2021: 17).⁹⁵ Invariably concluding that only we can be trusted with such ‘absolute power’. Herbert Butterfield referred to the ‘greatest menace to civilisation is liable to be the conflict between giant organised systems of self-righteousness’ (1953: 43). Without the looking glass of history, all our actions look good, proportionate, noble, heroic and principled. The purpose of history is to show us a true picture. To teach us humility and encourage us to seek to understand the perspectives of others. Nowhere is that need more than the need to consider the possession of nuclear weapons. Eric Fromm, one of the greatest psychoanalysts of the twentieth century, a German Jew who was forced to flee Nazi Germany and lost many members of his family in the Holocaust, wrote:

The lack of objectivity, as far as foreign nations are concerned is notorious. From one day to another, another nation is made out to be utterly depraved and fiendish, while one’s own nation is everything that is good and noble. Every action of the enemy is judged by one standard—every action of oneself by another. Even good deeds of the enemy are considered a sign of particular devilishness, meant to deceive us and the world, while our own bad deeds are necessary and justified by our noble goals which they serve. The faculty to think objectively is reason: the emotional attitude behind reason is that of humility. (1995:94)

At one level, the argument set out here is reassuring: that the INWO is orderly and, for the most part, predictable. This is so because of the 193 member states of the UN, at least 192 of them think that the last thing the world needs is a tenth NWS. All 193 states

⁹³ Pelopidas, B., 2017. The unbearable lightness of luck: Three sources of overconfidence in the manageability of nuclear crises. *European journal of international security*, 2(2), pp.240-262.

⁹⁴ Anderson, B., 2020. "Imagined communities: Reflections on the origin and spread of nationalism." In *The new social theory reader*. Routledge.

⁹⁵ Volkan, V.D., 2021. Chosen traumas and their impact on current political/societal conflicts. *Social trauma—An interdisciplinary textbook*.

are in agreement on wanting to ensure nuclear security and to avoid nuclear materials falling into the hands of non-state actors. So, they cooperate in a deep and sophisticated way to avert such undesirable outcomes. In these respects, the actions of states that comprise the INWO are rational and based on 'common interests.' This is the argument underpinning the claim that the INWO is more robust than we may first think and its NWS leaders are more rational and responsible than we are led to believe. If that were the last word, we could all sleep a little easier, but sadly, it is not.

In his book *Command and Control* (2014), Eric Schlosser lists thirty-two 'broken arrow' incidents (the term used by the Pentagon to describe serious accidents involving nuclear weapons) and catalogues more than 1000 accidents involving nuclear weapons between 1950 and 1968. Of course, we know about this because the United States is an open and transparent society. We have no idea of a comparable number for Russia or other NWS, but we could assume they might be proportionally similar. Moreover, NWS is relying primarily on sophisticated early warning and command and control systems, including AI, which is vulnerable to hacking and cyber-attacks. And with the advent of hypersonic missiles and potentially space-based weapons, decision times to ascertain whether it is a threat, or a false alarm, are reducing from minutes to seconds--that is an awful lot of 'luck' we depend on for our survival. Faced with 13,000 nuclear warheads pointed at us, the question humanity must ask itself is, 'Do we feel lucky.....?'

This is, I would argue, the rationalist case for nuclear disarmament. Not that some irrational leader will launch an all-out pre-emptive attack, but through accident or sabotage, we will trigger a nuclear weapons chain reaction which we are incapable of stopping. Few parents would regard it as sensible to leave a locked and loaded shotgun on the kitchen table when young children are around, because children simply lack the maturity and knowledge to know what such a weapon is capable of and how to handle it responsibly. We may have reached that position as an international society. We lack the maturity as a species and the knowledge as a civilisation to handle such catastrophic, destructive power of the weapons we have created. We can't dis-invent them. So what? Based on the evidence, I would suggest that the weakest link in the INWO is not extended deterrence, but their deployment on 'hair-trigger' alert by P-5 NWS.⁹⁶ It is interesting that

⁹⁶ For a clear and detailed overview of the issues surrounding nuclear weapons deployment see: Sorg, A., 2024. *Understanding Foreign Deployed Nuclear Weapons* (Doctoral dissertation, Hertie School); Federation of Atomic Scientists, 2024—[Status of World Nuclear Forces](#) by Hans Kristensen, Matt Korda et al published 29 March 2024 and for an official statement on the readiness of U.S. nuclear forces see: [U.S. Nuclear Force Posture and De-alerting](#) issued by the Bureau of Arms Control, Verification and Compliance, State Department—issued 14 December 2015 and there is a small De-Alerting Working Group comprising

little attention is focused on deployed nuclear weapons despite them representing the greatest vulnerability in INWO. One explanation is that only five of the nine NWS deploy nuclear weapons, and they happen to be the 'responsible and recognised' P-5 NWS: Russia (1710); United States (1770);⁹⁷ France (280), UK (120), and China (24). So far, we cannot rule out that one day in the future, they may not be needed, but until then, we need to lock them away securely, especially when the geopolitical temperatures are rising. To take these absolute weapons off the hair-trigger⁹⁸ that the P-5 have placed them on.⁹⁹ This is not an argument for idealistic unilateralism but rather rational multilateralism.

The question, of course, is how we get there. We must rely on those essential primary institutions of diplomacy, great power management and international law. Nine men can determine the fate of the earth at the touch of a button. This is a level of power that no single human being can/should be trusted with. Yet, these nine NWS leaders have never met to discuss their fiduciary responsibilities to the one hundred and eighty-four states and eight billion people whose survival depends upon them managing relations between themselves responsibly. This must change. Dialogue is a vital responsibility which accompanies great power. It is a fundamental norm of international society that you are free to disagree and defend your national interests vigorously, but that does not absolve you from the responsibility to discuss your disagreements and uphold the institutions which facilitate that process. This is where concepts of great power management and responsibility reach their limits in the English School and the INWO. For the ultimate responsibility for safeguarding humanity in a world society including nuclear weapons is not just *theirs*, it is *ours*. If such moral leadership is not forthcoming from the top down, then it must *rise-up*.

(Chile, Malaysia, Nigeria, New Zealand, Sweden and Switzerland) who work at the UN and submit periodic statements at NPT meetings e.g. [NPT/CONF.2020/PC.III/WP.23](#)—12 April 2019

⁹⁷ All deployed are strategic apart from U.S. 'nuclear sharing' arrangements, which involve 100 non-strategic nuclear weapons deployed in Germany, Netherlands, Italy, Belgium and Turkey.

⁹⁸ Union of Concerned Scientists, 2015. [Fact Sheet: Frequently asked questions about Taking Nuclear Weapons Weapons off Hair Trigger Alert](#). Published January, 2015 and Blair, B.G., Feiveson, H.A. and von Hippel, F.N., 1997. Taking nuclear weapons off hair-trigger alert. *Scientific American*, 277(5), pp.74-81.

⁹⁹ Barack Obama declared in his DePaul University speech: 'We'll work with Russia to take U.S. and Russian ballistic missiles off hair-trigger alert' 2 October 2007

Appendix 1:

The INWO

Multilateral Treaties	Bilateral Treaties	Regulators	Dialogues	Civil society	Norms
Nuclear non-proliferation Treaty (NPT) (1968)	New Strategic Arms Reduction Treaty (New Start) (2010)	International Atomic Energy Agency (IAEA) (1957)	NPT Review Conferences (RevCon) and NPT RevCon Preparatory Commission	ICAN (Australia)	Non-use (of nuclear weapons—nuclear taboo)
Partial Test Ban Treaty (1963)	Threshold Test Ban Treaty (1990)	Zangger Committee (1970)	P5 process (2009)	Global Zero (U.S.A)	Non-proliferation (of weapons or materials)
Outer Space Treaty (1967)	Peaceful Nuclear Explosions Treaty (1990)	Nuclear Suppliers Group (1975)	Open Ended Working Group (OEWG) (2012)	NTI (U.S.A)	Non-testing
Seabed Treaty (1972)	Vladivostok Agreement (1974)	Comprehensive Test Ban Treaty Preparatory Organisation (1997)	G7-Nonproliferation Directors Group	ELN (UK)	Deterrence (Mutually Assured Destruction)
Treaty on the Prohibition of Nuclear Weapons (The Ban Treaty) (2021)	Hotline Agreement (1963)	EURATOM (European Atomic Energy Community) (1957)	NATO-Nuclear Planning Group	ICRS (Switzerland)	Right to peaceful use of nuclear technology
Hotline Agreements—six bilateral agreements	Ballistic Missile Launch Notification Agreement (1988)	Preparatory Commission for the Denuclearisation of Latin America	Bilateral Consultative Commission—U.S.A-Russia (2010)	FAS (U.S.A)	Transparency/verification/inspections
Nuclear Free Zones—six regional agreements	<i>Plutonium Management and Disposition Agreement (2000-2015)</i>	Global Partnership on Weapons of Mass Destruction	IAEA General Council	SIPRI (Sweden)	Disarmament
Lisbon Protocol (1992)	U.S.-UK Mutual Defence Agreement (1958)	The Global Initiative to Combat Nuclear Terrorism	Conference on Disarmament	BASIC (UK)	Nuclear Safety
Missile Technology Control	AUKUS. (2021)	Conference of State Parties	UN Disarmament Commission	Pugwash (U.S.A)	Stability dialogues

Regime (1987) + The Hague Code of Conduct against Ballistic Missile Proliferation (2002)		to the 'Ban Treaty'			
Treaty on Open Skies (2002)	U.S. security guarantees	Preparatory Commission for the CTBT	(Resolution) 1540 Committee	PRIF (Germany)	Membership
Joint Comprehensive Plan of Action (JCPOA) (Iran) (2015)	<i>SALT II</i> / <i>SALT II</i> (1972-1979)	UNGA—First Committee—Defence and International Security (DISEC)	Creating and Environment for Nuclear Disarmament (CEND)	Mayors for Peace (Japan)	
The Nuclear Terrorism Convention (2005)	<i>START I</i> / <i>START II</i> (1993)	United Nations Office of Disarmament Affairs (UNODA)	The Stockholm Initiative for Nuclear Disarmament	Arms Control Association (U.S.A)	
Convention on the Physical Protection of Nuclear Material (1987)	<i>Strategic Offensive Reduction Treaty (SORT)</i> (2003-2011)	The U.S. Defense Threat Reduction Agency (1998) (Nun-Lugar Cooperative threat Reduction Programme)	Nuclear Security Contact Group	Vienna Centre for Disarmament & Non-proliferation (Austria)	
<i>Fissile Material Cut-off Treaty</i> (1993)	<i>Anti Ballistic Missile Treaty (ABM)</i> (1972-2002)	International Partnership for Nuclear Disarmament Verification (IPNVD)	Annual Conference on Middle East Nuclear Free Zone	VERTIC (UK)	
Comprehensive Test Ban Treaty (1996)	<i>Intermediate Range Nuclear Forces Treaty (INF)</i> (1987-2019)	Proliferation Security Initiative (PSI)	<i>Six Party Talks (North Korea)</i> 2003-2007	Acronym Institute for Disarmament Diplomacy (UK)	
Antarctic Treaty (1959)	Agreement on the Prevention of Nuclear War (1973)	OECD—Nuclear Energy Agency (NEA) (1972)	International Commission on Nuclear Non-proliferation and Disarmament (2008-2010)	Parliamentarians for Nuclear Non-Proliferation and Disarmament (PNND)	
		International Panel on	International Framework for		

		Fissile Materials (IPFM) (2006)	Nuclear Energy Co- operation (IFNEC) (2006)		
			International Conference on Nuclear Security (ICONS) (2013)		

Bibliography

Abe, N., 2020. The NPT at Fifty: Successes and Failures, *Journal for Peace and Nuclear Disarmament*, 3:2.

Acharya, A., 2018. *Constructing global order: Agency and change in world politics*. Cambridge University Press.

Acharya, A. and Buzan, B., 2019. *The making of global international relations*. Cambridge University Press.

Acheson, D., 1963. The Obstacles to Partnership with Europe. *Engineering and Science*, 26 (6).

Acheson, R., 2010. Beyond the 2010 NPT Review Conference: What's next for nuclear disarmament? *Bulletin of the Atomic Scientists*, 66 (6).

Acheson, R., Fihn, B. and Harrison, K., 2014. Report from the Nayarit Conference. *Reaching Critical Will*.

Adler, E., 1997. Seizing the middle ground: Constructivism in world politics. *European journal of international relations*, 3 (3).

Adler, N., Friedman, L., & Sinuany-Stern, Z., 2002. Review of ranking methods in the data envelopment analysis context. *European journal of operational research*, 140 (2).

Ahmed, U. and Thapar, R., 2011. Security Council Resolution 1887 and the Quest for Nuclear Disarmament. *Mich. J. Int'l L.*, 33.

Akgül, Ö. and Renda, K.K., 2020. Reconsidering power in international relations. *Chinese Political Science Review*, 5 (3).

Akiyama, N., 2021. Arms Control Dialogue is Japan's Interest: An Agenda for a New Nuclear Posture Review. *Journal for Peace and Nuclear Disarmament*, 4(2).

Alagappa, M., 2002. *The Study of International Order: An Analytical Framework*. In *Asian Security Order*. Stanford University Press.

Albright, D. & Gay, C., 1998. Taiwan: Nuclear nightmare averted, *Bulletin of the Atomic Scientists*, 54:1.

Alden, C. and Aran, A., 2017. *Foreign Policy Analysis—New Approaches*. Second Edition (Routledge)

Alderson, K. and Hurrell, A. (eds.), 2000. *International society and the academic study of International Relations*. *Hedley Bull on international society*. London: Macmillan.

Algahtani, A., 2014. Are leadership and management different? A review. *Journal of management policies and practices*, 2 (3).

- Allen, D. 2011. New Labour and Nuclear Weapons. In: Daddow, O., Gaskarth, J. (eds) *British Foreign Policy*. Palgrave Macmillan, London
- Allison, D. M., Herzog, S., & Ko, J., 2022. Under the Umbrella: Nuclear crises, extended deterrence, and public opinion. *Journal of Conflict Resolution*, 66 (10).
- Allison, G., 1969. The Cuban missile crisis. *The American Political Science Review*, 63 (3).
- Allison, G., 2010. Nuclear disorder: surveying atomic threats. *Foreign Affairs*.
- Allison, G., 2017. The Thucydides Trap. *Foreign Policy*, 9 (6).
- Allison, G.T., Carnesale, A. and Nye, J.S., 1985. Hawks, doves and owls: a new perspective on avoiding nuclear war. *International Affairs (Royal Institute of International Affairs)*, 61 (4).
- Allison, G.T. and Zelikow, P., 1971. *Essence of decision: Explaining the Cuban missile crisis* (Vol. 327, No. 729.1). Boston: Little, Brown.
- Almeida, J. M., 2003. Challenging Realism by Returning to History: The British Committee's Contribution to IR 40 Years On. *International Relations*, 17 (3).
- Almeida, J. M., 2006. Hedley Bull, 'Embedded Cosmopolitanism', and the Pluralist-Solidarist Debate. In *The Anarchical Society in a Globalized World*. Palgrave Macmillan.
- Alperovitz, G., 1965. *Atomic Diplomacy: Hiroshima and Potsdam: The Use of the Atomic Bomb and the Confrontation with the Soviet Power*. Simon & Schuster.
- Alperovitz, G., 1985. More on atomic diplomacy. *Bulletin of the Atomic Scientists*, 41(11).
- Anderson, B., Beach, H., Watson, C., Ritchie, N., Saakyan, R. and Finney, J., 2012. *Verification of Nuclear Weapon Dismantlement*. British Pugwash Group.
- Anderson, B., 2016. *Imagined Communities: Reflections on the Origin and Spread of Nationalism* published by Verso: London
- Anstey, I. 2018. Negotiating Nuclear Control: The Zangger Committee and the Nuclear Suppliers' Group in the 1970s, *The International History Review*, 40:5.
- Anta, C.G., 2023. Bertrand Russell and Albert Einstein through the meanders of scientific pacifism. *History of European Ideas*, 49 (7).
- Antonov, A. and Hoffmann, T., 2020. The NATO-Russia Council—An Assessment of the NRC Prior to the Ukraine Crisis. *The EU in the 21st Century: Challenges and Opportunities for the European Integration Process*. Springer.
- Arbatov, A., 2015. The P-5 Process: Prospects for Engagement, Deepcuts Working Paper, No 3, January 2015, published by the Institute for Peace Research and Security Policy, University of Hamburg.
- Arms Control Association, 2021. Fact Sheet W93 Warhead published 28 January 2021
- Arms Control Association, 2021. Fact Sheet—United Kingdom updated August 2024.

- Aron, R., 1969. The evolution of modern strategic thought. *Adelphi Papers*, 9 (54).
- Aron, R., 1995. The anarchical order of power. *Daedalus*, 124 (3).
- Art, R.J., 1980. To what ends military power? *International Security*, 4 (4).
- Astrov, A. ed., 2011. The great power (mis) management: the Russian-Georgian war and its implications for global political order. Ashgate Publishing, Ltd..
- Avery, D. H., 1995. Atomic Scientific Co-operation and Rivalry Among Allies: The Anglo-Canadian Montreal Laboratory and the Manhattan Project, 1943-1946. *War in History*, 2 (3).
- Ayson R., 2012. *Hedley Bull and the accommodation of power*. New York, NY: Palgrave Macmillan.
- Bailes, A., 1997. Europe's Defense Challenge-Reinventing the Atlantic Alliance. *Foreign Aff.*, 76,.
- Bailes, A.J., Dunay, P., Guang, P. and Troitskiy, M., 2007. The Shanghai cooperation organization (Vol. 17). Stockholm: Stockholm International Peace Research Institute.
- Bain, W., 2013. The pluralist–solidarist debate in the English School. *Guide to the English school in international studies*. Wiley.
- Baklitskiy, A., Bidgood, S. and Meier, O., 2020. Russian-U.S. Strategic Stability Talks: Where they are and where they should go. Institut für Friedensforschung und Sicherheitspolitik an der Universität Hamburg.
- Baldwin, D.A., 2016. *Power and international relations: A conceptual approach*. Princeton University Press.
- Ball, S., 1995. Military nuclear relations between the United States and Great Britain under the terms of the McMahon Act, 1946–1958. *The Historical Journal*, 38 (2).
- Bao-jun, L. and Zheng-yuan, X., 2006. China's self-identity construction as a responsible power in the post-cold war era. *Teaching and Research*, (1).
- Barnett, M., and Duvall, R., 2005. Power in International Politics. *International Organization* 59 (1).
- Barnett, M.N. and Finnemore, M., 1999. The politics, power, and pathologies of international organizations. *International organization*, 53 (4).
- Baron, J., 2014. *Great power peace and American primacy: The origins and future of a new international order*. Springer.
- Bartels, R. D., 1968. The non-proliferation treaty and peaceful application of nuclear explosions. *Stanford Law Review*, 20 (5).
- BASIC, 2014. *The Trident Commission (Final Report)* published July 2014

BASIC, 2018. How much does the UK spend on Nuclear Weapons published November 2018 by Davis, I.

BASIC and UNA UK 2017. Meaningful Multilateralism by Brixey-Williams,S., Ingram,P., Pedersen, N.S.

BASIC, 2004. Special Report: U.S.-UK nuclear weapons collaboration under the Mutual Defence Agreement by Nigel Chamberlain, Nicola Butler and Dave Andrews (June 2004)

BASIC, 2012. Trident Commission *Entente Nucleaire* Options for UK-French Nuclear Cooperation. Discussion Paper 3 by Bruno Tertrais published June 2012

Baylis, J., 1995. Ambiguity and deterrence: British nuclear strategy, 1945-1964 (No. 4). Oxford University Press.

Baylis, J. ed., 1997. *Anglo-American relations since 1939: The enduring alliance*. Manchester University Press.

Baylis, J., 2001. 'Exchanging Nuclear Secrets: Laying the Foundations of the Anglo-American Nuclear Relationship' published (Winter, 2001) in *Diplomatic History*, Vol.25, No.1.

Baylis, J., 2005. British Nuclear Doctrine: The 'Moscow Criterion' and the Polaris Improvement Programme, *Contemporary British History*, 19:1.

Baylis, J. and Stoddart, K., 2012. The British nuclear experience: The role of ideas and beliefs (Part One). *Diplomacy & Statecraft*, 23 (2).

Baylis, J., Smith, S. and Owens, P., 2014. *The Globalisation of World Politics*, 6th ed. Oxford University Press

Bell, M.S., 2015. Beyond emboldenment: How acquiring nuclear weapons can change foreign policy. *International Security*, 40 (1).

Bellany, I., Blacker,C.D. and Gallacher, J. eds.,1985. *The Nuclear Non-proliferation Treaty* published by Frank Cass and Company Limited

Belova, O., 2016. The challenge of reset: A discourse analysis of Barack Obama's construction of Russia in 2009–12. *Journal of Language and Politics*, 15 (6).

Below, A., Hellmann, A., Schaper, A., Rauch, C., Rosert, E., Plümmer, F., ... & Müller, D., 2013. *Norm dynamics in multilateral arms control: Interests, conflicts, and justice* (Vol. 13). University of Georgia Press.

Benedict, K., 2011. Nunn-Lugar: 20 years of Cooperative Threat Reduction. *Bulletin of the Atomic Scientists*, 19.

Benneyworth, I.J., 2011. The 'Great Debates' in International Relations published on e-International Relations, 10 May 2011

Bentley, M. and Holland, J., 2017. *The Obama Doctrine*. Oxon: Routledge.

Berger, A. and Chalmers, M., 2013. Great Expectations: The P-5 process and the Non-proliferation Treaty in the Whitehall report series 3-13, published by Royal United Services Institute for Defence and Security Studies (RUSI)

Berger, A. and Chalmers, M., 2014. The art of the possible: the future of the P-5 process on nuclear weapons. *Arms Control Today*, 44(8).

Berger, A., 2014. The P-5 Nuclear Dialogue—Five Years On. Occasional paper (London: Royal United Services Institute)

Bernstein, B. J., 1976. The Uneasy Alliance: Roosevelt, Churchill, and the Atomic Bomb, 1940-1945. *The Western Political Quarterly*, 29 (2).

Bernstein J., 2011. A memorandum that changed the world. *American Journal of Physics*.

Bevir, M. and Hall, I. 2020. The English school and the classical approach: Between modernism and interpretivism. Published in the *Journal of International Political Theory*. 2020;16(2).

Biden, J.R., 2020. Why America must lead again. *Foreign Affairs*, 99 (2).

Bidgood, S., 2024. No Risk (Reduction), No Reward: Re-examining the 1973 U.S.-Soviet Agreement on the Prevention of Nuclear War. *Cold War History*, 24 (2).

Biggam, J., 2017. *Succeeding with your Master's Dissertation: A Step-by-Step Handbook: Step-by-step Handbook*. McGraw-Hill Education (UK).

Bin, L. and Hongyi, N., 2008. An Investigation of China—U.S. Strategic Stability. *World Economics & Politics*, 2.

Bisley, N., 2012. *Great powers in the changing international order*. Boulder, CO: Lynne Rienner Publishers.

Biswas, S., 2001. "Nuclear apartheid" as political position: Race as a postcolonial resource?. *Alternatives*, 26(4).

Biswas, S., 2014. *Nuclear desire: Power and the postcolonial nuclear order*. University of Minnesota Press.

Bixley-Williams, S., 2020. The P-5 Process: The United Kingdom's coordination in 2019-2020 published by ELN 30 April 2020.

Blair, B.G., Feiveson, H.A. and von Hippel, F.N., 1997. Taking nuclear weapons off hair-trigger alert. *Scientific American*, 277 (5).

Blair, T., 2010. *A journey: My political life*. Vintage.

Blakemore, E., 2020. How the advent of nuclear weapons changed the course of history published in *National Geographic* on 17 July 2020

- Blechman, B. M., & Bollfrass, A. K., 2010. Elements of a Nuclear Disarmament Treaty. Henry L. Stimson Center.
- Blix, H., 2008. Why Nuclear Disarmament Matters (MIT)
- Blix, H., 2016. A Middle East Zone Free of Weapons of Mass Destruction—(Still) a Topic for a Helsinki Meeting? In WMD Arms Control in the Middle East. Routledge.
- Bohr, N., & J. A., 1939. The mechanism of nuclear fission. *Physical Review*, 56 (5).
- Bond-Graham, D., 2011. The Obama Administration's Nuclear Weapons Surge. *Counter Punch*, 18 (16).
- Booth, K., 2014. International Relations: All that Matters. Hodder & Stoughton.
- Booth, K., & Wheeler, N. 2008. The Security Dilemma. Fear, Cooperation and Trust in World Politics, Basingstoke and New York: Palgrave Macmillan.
- Borisov, O. B., 1977. The Soviet Union and the Manchurian Revolutionary Base (1945-1949). Progress Publishers.
- Borrie, J., 2014. Humanitarian reframing of nuclear weapons and the logic of a ban. *International Affairs*, 90(3).
- Borrie, J., Rublee, M.R., Varriale, C., Ogilvie-White, T., Futter, A., Shea, J., Watkins, P. and Parthemore, C., 2020. Perspectives on nuclear deterrence in the 21st century. Chatham House.
- Bose, M. and Fritz, P. eds., 2024. Evaluating the Obama Presidency: From Transformational Goals to Governing Realities (Vol. 1). Walter de Gruyter GmbH & Co KG.
- Bourantonis, D., 1997. The Negotiation of the Non-Proliferation Treaty, 1965–1968: A Note, *The International History Review*, 19:2.
- Bourantonis, D., 2015. The International Nuclear Non-Proliferation Policy Framework under the NPT and Related Instruments. In: Blavoukos, S., Bourantonis, D., Portela, C. (eds) *The EU and the Non-Proliferation of Nuclear Weapons. The European Union in International Affairs*. Palgrave Macmillan, London.
- Bousquet, A. and Curtis, S., 2011. Beyond models and metaphors: complexity theory, systems thinking and international relations. *Cambridge review of international affairs*, 24(01).
- Bower, A., 2016. Norms without the great powers: international law and changing social standards in world politics. Oxford University Press.
- Bracken, P., 2013. The Second Nuclear Age: Strategy, Danger, and the New Power Politics (St. Martin's Griffin: New York)
- Bresolin, J., 2014. Fact sheet: The Nunn-Lugar cooperative threat reduction program. Center for Arms Control and Non-Proliferation.
- Brodie, B., 1946. The Absolute Weapon: Atomic Power and World Order. Yale.

Brodie, B., & Dunn, F. S., 1946. *The Absolute weapon: Atomic power and world order*. Progress Publishers.

Brooks, L.F., 2015. *Unintended consequences of the Prague speech. Global Nuclear Disarmament*. Routledge.

Broschius, S. D., 1999. 'Longing for International Control, Banking on American Superiority: Harry S. Truman's Approach to Nuclear Weapons', in John Gaddis and others (eds), *Cold War Statesmen Confront the Bomb: Nuclear Diplomacy Since 1945* (Oxford, 1999; online edn, Oxford Academic, 16 Nov. 2004)

Brown, C., 1995. *International Theory and International Society: The viability of the middle way* published in the *Review of International Studies*. Vol. 21. Issue 2.

Brown, C., 2004. *Do great powers have great responsibilities? Great powers and moral agency. Global Society, 18* (1).

Brown, C., 2011. *The Development of International Relations Theory in the UK: traditions, contemporary perspectives and trajectories* published in *The Journal of International Relations in the Asia Pacific*, Volume 11. Issue 2.

Browne, D., Lugar, R. and Nunn, S., 2015. *Bridging the Military Nuclear Materials Gap*. Nuclear Threat Initiative (NTI).

Bryant, A., 1959. *Triumph in the West: A history of the war years based on the diaries of Field-Marshal Lord Alanbrooke, Chief of the Imperial General Staff*. Doubleday.

Budjeryn, M., 2022. *Distressing a system in distress: Global nuclear order and Russia's war against Ukraine*. *Bulletin of the Atomic Scientists, 78* (6).

Bugos, S., 2020. *CEND establishes two-year work program. Arms Control Today, 50* (1).

Bukovansky, M., Clark, I., Eckersley, R., Price, R., Reus-Smit, C. and Wheeler, N.J., 2012. *Special responsibilities: Global problems and American power*. Cambridge University Press.

Bull, H., 1962. *Two types of arms control*. *Adelphi Papers, 2:2*.

Bull, H., 1961. *The Control of the Arms Race*. Praeger (New York)

Bull, H., 1966. *International Theory: The Case for a Classical Approach*. *World Politics, 18* (3).

Bull, H., 1969. *The Twenty-Year Crisis Thirty Years On* published in *International Journal* (24)

Bull, H., 1972. *International Law and International Order* published in *International Organization, 1972, Vol. 26* (3)

- H., 1975. Rethinking Non-Proliferation. *International Affairs (RIIA)*, 51(2).
- Bull, H., 1976. Martin Wight and the theory of international relations: the second Martin Wight Memorial Lecture. *Review of International Studies*, 2(2).
- Bull, H., 1977. *The Anarchical Society: A Study of Order in World Politics* 4th edition, (2002). Basingstoke, Palgrave Macmillan
- Bull, H., 1979. Recapturing the just war for political theory. *World Politics*, 31(4).
- Bull, H., 1980. Future conditions of strategic deterrence. *Adelphi Papers*, 20:160.
- Bull, H., 1980. The Great Irresponsibles? The United States, the Soviet Union, and world order. *International Journal*, 35 (3).
- Bull, H. and Watson, A. (eds.), 1984. *The Expansion of International Society* published by Oxford: Oxford University Press
- Burgess, S., Fitzpatrick, M., Hagerty, D.T., Hanson, M., Kassenova, T., Rublee, M.R. and Shire, J., 2012. *Slaying the Nuclear Dragon: Disarmament Dynamics in the Twenty-First Century* (Vol. 14). University of Georgia Press.
- Burns, W.J., 2016. Iranian-American Negotiations. *Journal of International Affairs*, 69 (2).
- Burns, W.J., 2019. *The back channel: American diplomacy in a disordered world*. Oxford University Press.
- Butler, R., 2001. *Fatal choice: nuclear weapons and the illusion of missile defense*. Westview Press.
- Butterfield, H., 1953. *Christianity Diplomacy and War*. London: The Epworth Press
- Butterfield, H., 1960. *International conflict in the twentieth century: A Christian view*. Routledge.
- Butterfield, H. and Wight, M. 1966/2019. *Diplomatic Investigations: Essays in the Theory of International Politics*. Oxford University Press
- Buzan, B., 1993. *The Logic of Anarchy: Neorealism to Structural Realism*, New York Chichester, West Sussex: Columbia University Press.
- Buzan, B., 1993. From International System to International Society: Structural Realism and Regime Theory Meet the English School. *International Organization*, 47(3).
- Buzan, B., 2001. *The English School: An Underexploited Resource in IR* published in *Review of International Studies* 27.

Buzan, B., 2004. The primary institutions of international society (chapter 6, pp. 161-204) in *From international to world society? English school theory and the social structure of globalisation*. Cambridge University Press.

Buzan, B., 2004. *From International to World Society?: English school theory and the social structure of globalisation*. Cambridge University Press.

Buzan, B., 2005. 'International community' after Iraq. *International Affairs*, 81(1).

Buzan, B., 2006. Chapter 4, Rethinking Hedley Bull on the Institutions of International Society in Little, Richard and Williams, John (eds.) *The Anarchical Society in a Globalised World* (Palgrave Macmillan)

Buzan, B., 2006 (b). An English school perspective on 'what kind of world order?'. *Cooperation and Conflict*, 41(4).

Buzan, B., 2009. The Middle East through English School Theory in Buzan, B and Gonzalez-Pelaez (eds) *International Society and the Middle East: English School Theory at the Regional Level*. Basingstoke: Palgrave.

Buzan, B., 2014. *An Introduction to the English School of International Relations*. Polity Press.

Buzan, B., 2023. *Making global society: a study of humankind across three eras*. Cambridge University Press.

Buzan, B. and Lawson, G., 2014. Rethinking benchmark dates in international relations. *European Journal of International Relations*, 20 (2)

Buzan, B., and Lawson, G., 2015. *The global transformation: history, modernity and the making of international relations*. Cambridge studies in international relations. Cambridge University Press

Buzan, B. and Lawson, G., 2018. The English School: history and primary institutions as empirical IR theory? In: Thompson, v, (ed.) *The Oxford Encyclopaedia of Empirical International Relations Theory*. Oxford University Press, New York, U.S.A.

Buzan, B. and Schouenborg, L., 2018. *Global International Society—A New Framework of Analysis*. Cambridge: Cambridge University Press.

Buzan, B. and Little, R., 2020. *International Systems in World History: Remaking the study of International Relations* published by Oxford University Press.

Buzhinskiy, E., 2013. What Has Changed Since Prague? *The Washington Quarterly*, 36 (2).

Cabinet Office, 2010. *Securing Britain in an age of uncertainty: The strategic defence and security review (Vol. 7948)*. The Stationery Office.

Cabinet Office, 2010. A Strong Britain in an age of Uncertainty: The National Security Strategy (Vol. 7953). The Stationery Office.

Calingaert, D., 1988. Nuclear weapons and the Korean War. *The Journal of Strategic Studies*, 11(2).

Calleo, D., Grand, C., Safranchuk, I. and Dingli, S., 2009. Obama's Foreign Policy: Is this change we can believe in? ESF Working Paper No. 32, 4 August 2009.

Cann, M., Davenport, K. and Parker, J., 2016. Nuclear Security Summits: Accomplishments of the Process, published by Arms Control Association and Partnership for Global Security Support—March 2016.

Carmichael, N., 2011. A Brief History of the Berlin Crisis of 1961. U.S. National archives.

Carr, A.B., 2021. Thirty Minutes Before the Dawn, *Nuclear Technology*, 207:sup1, S1-S23,

Carr, E.H., 1939. *The Twenty-Year Crisis* (2001 edition) ed. Michael Cox Basingstoke: Palgrave Macmillan

Carr, E.H., 1961 *What is History?* Extract from Edition 2001 Basingstoke: Palgrave

Carr, E.H., 2016. *The Harmony of Interests. The Twenty Years' Crisis, 1919-1939: Reissued with a new preface from Michael Cox.*

Centre for Global Security Research, Lawrence Livermore National Laboratory report, 2021. U.S. Nuclear Declaratory Policy 2021: The Renewed Debate about Sole Purpose and No-First Use published February 2021

Chalmers, H., 2014. *The Bang Behind the Buck: Replacing the UK's Nuclear Warheads Occasional Paper*, published by RUSI, March 2014

Chalmers, M., 2009. Britain's new nuclear debate: A Credible Road map for disarmament. *The RUSI Journal*, 154 (2).

Chalmers, M., 2021. *The Integrated Review: The UK as a Reluctant Middle Power* published by RUSI March 2021.

Chan M., 2016. Non-Nuclear Weapons States Must Lead in Shaping International Norms on Nuclear Weapons: A Practitioner Commentary. *Global policy*. 2016;7.

Chansoria, M., 2013. The Political History of China's Nuclear Bomb. *CLAWS Journal*, 79-96.

Chari, V.V., Christiano, L. and Kehoe, P.J., 2008. Facts and Myths about the Financial Crisis of 2008. Federal Reserve Bank of Minneapolis Working Paper.

Childs, N. and Barrie, D., 2021. *The UK and nuclear warheads: Stretching credibility* published 26 March 2021 by IISS

- Chossudovsky, E. M., 1990. The Origins of the Treaty on the Non-Proliferation of Nuclear Weapons: Ireland's Initiative in the United Nations (1958-61). *Irish Studies in International Affairs*, 3(2).
- Christensen, T.J., 2015. *The China Challenge: Shaping the Choices of a Rising Power*. Princeton University Press.
- Cimbala, S.J., 1993. Nuclear weapons in the new world order. *The Journal of Strategic Studies*, 16 (2).
- Cimbala, S.J., 1998. *The Past and Future of Nuclear Deterrence*. Praeger.
- Cimbala, S.J., 2020. *Toward Nuclear Minimalism? Minimum Deterrence and Its Alternatives. The United States, Russia and Nuclear Peace*.
- Cirincione, J., 2007. *Bomb Scare: the history and future of nuclear weapons*. Columbia University Press.
- Cirincione, J., 2010. Taking the Field: Obama's Nuclear Reforms. *Survival*, 52 (2).
- Cirincione, J. and Bell, A., 2010. 'The Nuclear Pivot: Change and Continuity in American Nuclear Policy' *The RUSI Journal*, 155 (3).
- Clark, I., 2005. *Legitimacy in international society*. Oxford University Press on Demand.
- Clark, I., 2009. How Hierarchical Can International Society Be? *International Relations*, 23 (3).
- Clark, I., 2007. *Westphalia: The Origins of International Legitimacy?* Chapter in 'Legitimacy in International Society,' Oxford University Press
- Clausewitz, Carl Von. 1976. *On War*. Princeton, NJ: Princeton University Press. Clegg, Stewart.
- Cohen, A., & Burr, W., 2006. Israel crosses the threshold. *Bulletin of the Atomic Scientists*, 62(3).
- Coker, C., 2018. Still 'the human thing'? Technology, human agency and the future of war. *International Relations*, 32 (1), 23-38.
- Coker, C., 2017. *Rebooting Clausewitz: 'On War 'in the twenty-first century*. Oxford University Press.
- Coles, J., 2000. *Making Foreign Policy: A certain Idea of Britain* published by John Murray—London
- Considine, L., 2019. Contests of legitimacy and value: The treaty on the prohibition of nuclear weapons and the logic of prohibition. *International Affairs*, 95 (5).
- Copeland, D. 2003. A realist critique of the English School published in the *Review of International Studies*, 2003-2007, Vol. 29 (3).

- Craig, C. and Ruzicka, J., 2013. The non-proliferation complex. *Ethics & International Affairs*, 27(3).
- Craig, C., & Radchenko, S., 2008. *The atomic bomb and the origins of the Cold War*. Yale University Press.
- Craig, M. M., 2017. *America, Britain and Pakistan's Nuclear Weapons Programme, 1974-1980: A Dream of Nightmare Proportions*. Springer.
- Crail et al., 2011. Pursuing the Prague Agenda: An Interview with White House Coordinator Gary Samore. *Arms Control Today*.
- Crail, P., 2011. P-5 to take up fissile material cutoff. *Arms Control Today*, 41(7), p.32.
- Croddy, E.A., Larsen, J.A. and Wirtz, J.J. eds., 2018. *Weapons of Mass Destruction: The Essential Reference Guide*. Bloomsbury Publishing U.S.A.
- Cronberg, T., 2021. *Renegotiating the nuclear order: A sociological approach*. Routledge.
- Cronberg, T., 2022. The Security of Nuclear Weapon-Free Zones: The Middle East as a Test Case for Unconditional Security Assurances. *Journal for Peace and Nuclear Disarmament*, 5 (1).
- CSIS, 2020. U.S. Nuclear Warhead Modernisation by Hersman, K.C., Rodgers, J. published 10 December 2020
- CSIS, 2021. Reading the Nuclear Tea Leaves: Policy and Posture in the Biden Administration by Hersman, K.C., and Rodgers, J. published 14 June 2021
- Cui, S. and Buzan, B., 2016. Great Power Management in International Society. *The Chinese Journal of International Politics*, 9 (2).
- Daalder, I. and Lodal, J., 2008. Logic of Zero-Toward a World without Nuclear Weapons. *Foreign Aff.*, 87.
- Daalder, I.H., 1995. What vision for the nuclear future? *Washington Quarterly*, 18 (2).
- Dahl, R.A., 1957. The concept of power. *Behavioural Science*, 2 (3).
- Dahl, R.A. and Stinebrickner, B., 2003. *Modern Political Analysis*. Upper Saddle River.
- Dahl, R.A., Bell, R., Edwards, D.W., Wagner, R.H. and Passigli, S., 1961. *Who governs. Democracy and Power in an American City*. New Haven.
- Darnton, G. and Falk, R.A., 2020. *Nuclear Weapons and International Law*. 3rd edition. Durotriges Press.
- Davenport, K. and Parker, J., 2019. Case Study: The Nuclear Security Summit Process and Its Outcomes. In *Nuclear Safeguards, Security, and Non-proliferation*. Butterworth-Heinemann.
- Davenport, K., & Kim, S.-M., 2021. Missile Proliferation Poses Global Risk. *Arms Control Today*, 51(5).

- Davenport, K., 2012. Iran, P-5+ 1 Move to Technical Talks. *Arms Control Today*, 42(6).
- Davis, I., 2015. *The British Bomb and NATO: Six Decades of Contributing to NATO's Strategic Nuclear Deterrent*. SIPRI.
- Davis, Z.S., 1993. *The realist nuclear regime*. In *The Proliferation Puzzle*. Routledge.
- Debouzy, O., 1991. *Anglo-French Nuclear Cooperation: Perspectives and Problems*. Royal United Services Institute for Defence Studies.
- Dee, M. and Kienzle, B., 2023. Between role adaptation and contestation: the UK's status as a nuclear weapon state after Brexit. *International Politics*.
- Dee, M., 2024. Minilateralism and effective multilateralism in the global nuclear order. *Contemporary Security Policy*, 45(3).
- Deudney, D., 1995. Nuclear weapons and the waning of the real state. *Daedalus*, 124(2).
- Dhanapala, J., 2010. Planning for the 2010 NPT Review Conference: A Practitioner's overview. *Pugwash Issue Brief*, 6 (1).
- Dingman, R., 1988. Atomic Diplomacy during the Korean War. *International Security*, 13(3).
- Donnelly, J., 2002. *The Constitutional Structure of Ancient Greek International Society*. In BISA Conference, London, December.
- Donnelly, J., 2006. *The Constitutional Structure of International Societies* (unpublished paper) 13 July 2006, 23 pp cited in Buzan and Lawson (2018)
- Donnelly, J., 2012. *The Elements of the Structures of International Systems*. *International Organization*, vol. 66, no. 4, MIT Press, University of Wisconsin Press, Cambridge University Press, International Organization Foundation.
- Douglas, J. and Futter, A., 2016. Plus ça change?: Reflecting on Obama's nuclear agenda and legacy. In *The Obama Doctrine*. Routledge.
- Doyle, J.E., 2009. *Defining nuclear security in the 21st century* (No. LA-UR-09-01492; LA-UR-09-1492). Los Alamos National Laboratory (LANL), Los Alamos, NM (United States).
- Drell, S.D. and Shultz, G.P., 2013. *Implications of the Reykjavik Summit on its twentieth anniversary: Conference report*. Hoover Press.
- Drezner, D., 2021. Power and international relations: a temporal view. *European Journal of International Relations*, 27(1).
- Drogan, M., 2016. The Nuclear imperative: Atoms for Peace and the development of U.S. policy on exporting nuclear power, 1953-1955. *Diplomatic History*, 40 (5).
- Dueck, C., 2011. The Accommodator: Obama's foreign policy. *Policy Review*, (169).
- Dunn, L.A., 2009. *The NPT, The Non-proliferation Review*.

- Dunn, L.A., 2015. Finding a way out of the NPT disarmament stalemate. *Arms Control Today*, 45(3).
- Dunn, L.A., 2017. The strategic elimination of nuclear weapons: an alternative global agenda for nuclear disarmament. *The Non-proliferation Review*, 24 (5-6).
- Dunne, T., 1998. *Inventing International Society—A History of the English School*, Basingstoke: Palgrave.
- Dunne, T., 2001. New thinking on international society. *The British Journal of Politics & International Relations*, 3(2).
- Dunne, T., 2003. Society and hierarchy in international relations. *International Relations* 17(3).
- Dunne, T., 2008. Chapter 15 *The English School* in Reus-Smit, C., & Snidal, D. (Eds.). (2008). *The Oxford handbook of international relations*. Oxford University Press.
- Dunne, T., Kurki, M. and Smith, S. (eds.) (2016) *International Relations Theories: Discipline and Diversity*, Fourth edition (Oxford University Press)
- Durkheim, E., 1895 [1982]. *The rules of sociological method, and selected texts on sociology and its method*, edited by Lukes, S. and published by Macmillan-London
- Duță, A.E., 2016. Nuclear Safety and P-5 Glossary. *Research and Science Today*, 11(1).
- Duvall, R. D., & Wendt, A., 1989. Institutions and International Order: Approaches to World Politics for the 1990s. In *Global changes and theoretical challenges: Approaches to world politics for the 1990s*. Lexington Books.
- Edwards, A. J. C., 1986. *Nuclear Weapons: The Balance of Terror, the Quest for Peace*. SUNY Press.
- Egel, N. and Ward, S., 2022. Hierarchy, revisionism, and subordinate actors: The TPNW and the subversion of the nuclear order. *European Journal of International Relations*, 28 (4).
- Egeland, K., 2021. The ideology of nuclear order. *New Political Science*, 43 (2)
- Egeland, K., 2020. Who stole disarmament? History and nostalgia in nuclear abolition discourse. *International affairs*, 96 (5).
- Egeland, K. and Pelopidas, B., 2021. European nuclear weapons? Zombie debates and nuclear realities. *European Security*, 30 (2).
- Egeland, K. and Pelopidas, B., 2022. No such thing as a free donation? Research funding and conflicts of interest in nuclear weapons policy analysis. *International Relations*.
- Elbahtimy, H., 2022. *NPT Briefing Book 2022 Edition*. King's College London and The Centre for Non-proliferation Studies, Middlebury Institute.

Elster, J., 1976. Some Conceptual Problems in Political Theory. In *Power and Political Theory*, ed. Brian Barry. New York: Wiley.

Elster, J., 1989. Social norms and economic theory. *Journal of Economic Perspectives*, 3 (4),

Epp, R., 1998. The English school on the frontiers of international society: a hermeneutic recollection. *Review of International Studies*, 24(5).

Evangelista, M., 1990. Cooperation Theory and Disarmament Negotiations in the 1950s. *World Politics*, 42 (4).

Evans, G., and Sahnoun, M., 2001. Report of the International Commission on Intervention and State Sovereignty: The Responsibility to Protect. IDRC, Ottawa

Evans, T. and Wilson, P., 1992. Regime Theory and the English School of International Relations: A Comparison published in *Millennium: Journal of International Studies*, 1992, Vol. 21, (3).

Fairclough, N., 1992. Discourse and text: Linguistic and intertextual analysis within discourse analysis. *Discourse & Society*, 3(2).

Falk, R.A., 1983. Is Nuclear Policy a War Crime. *Hum. Rts.*, 11.

Falk, R.A., 1997. Nuclear weapons, international law and the world court: a historic encounter. *American Journal of International Law*, 91(1).

Falk, R., 1997. The Critical Realist Tradition and the Demystification of interstate power: E.H.Carr, Hedley Bull and Robert W. Cox chapter (3) in Gill, S., & Mittelman, J. (Eds.). (1997). *Innovation and Transformation in International Studies*. Cambridge: Cambridge University Press

Falk, R., 2016. On President Obama's Visit to Hiroshima. *Peace Review*, 28 (3).

Falkner, R., 2017. The anarchical society and climate change. in: Suganami, Hidemi, Carr, Madeline and Humphreys, Adam, (eds.) *The Anarchical Society at 40: Contemporary Challenges and Prospects*. Oxford, UK : Oxford University Press.

Falkner, R. and Buzan, B., 2019. The emergence of environmental stewardship as a primary institution of global international society, *European Journal of International Relations*, 25 (1).

Favaro, M., 2021. *Weapons of Mass Distortion* published by the Centre for Science and Security Studies, King's College London in May 2021

FCDO (UK) 2018. *Global Britain: Delivering on our international ambition*. Foreign, Commonwealth and Development Office, 13 June 2018

Fearon J. and Wendt, A., 2002. A Sceptical View. Handbook of international relations, 52.

Federation of American Scientists 2021. Status of World Nuclear Forces, May 2021.

Feis, H., 1967. Review of Britain and Atomic Energy: 1939-1945., by M. Gowing. Political Science Quarterly, 82(1).

Ferguson, C.D. and Potter, W.C., 2012. The four faces of nuclear terrorism. Routledge.

Fermi, E., Amaldi, E., D'Agostino, O., Rasetti, F., & Segrè, E., 1934. Artificial radioactivity produced by neutron bombardment. Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character, 146 (857).

Finger, A. and Meier, O., 2013. Confidence-building on tactical nuclear weapons: what's on the table? Published by Universität Hamburg

Finnemore, M., 1993. International organizations as teachers of norms: the United Nations Educational, Scientific, and Cultural Organization and science policy. International organization, 47(4).

Finnemore, M., 1996. National Interests in International Society published by Cornell University Press.

Finnemore, M., 2001. Exporting the English School? Review of International Studies, 27 (3).

Finnemore, M., & Sikkink, K., 1998. International norm dynamics and political change. International organization, 52 (4).

Finnemore, M., and Goldstein, J., eds. 2013. Back to Basics: State Power in a Contemporary World. New York: Oxford University Press

Fischer, B.A., 2019. The Strategic Defense Initiative: Ending the MADness. The Myth of Triumphalism. The University Press of Kentucky.

Floyd, R., 2021. Security cooperation as a primary institution of western international society, Global Change, Peace & Security, 33:1.

Foot, R., Gaddis, J. and Hurrell, A. eds., 2003. Order and justice in international relations. OUP Oxford.

Ford, C. 2007. Debating Disarmament: Interpreting Article VI of the NPT published in Non-proliferation Review, 14;3.

Fox, W. T., 1980. The super-powers then and now. International Journal, 35 (3).

Freedman, L., 2019. The rise and fall of Great Power wars. International Affairs, 95 (1).

Freedman, L. and Michaels, J., 2019. *The Evolution of Nuclear Strategy*. Palgrave Macmillan.

Freedman, L., Miller, S.E. et al *The Interplay Between the International System and the Global Nuclear Order* published by the American Academy of Arts and Sciences

Friedrichs, D.O., 1985. The nuclear arms issue and the field of criminal justice. *The Justice Professional*, 1(1).

Fritz, P., 2024. The U.S. and Russia during the Obama Administration: An Inevitable Return of Great Power Politics? Evaluating the Obama Presidency: From Transformational Goals to Governing Realities, 1.

Fromm, E., 2000. *The Art of Loving*. The centennial edition. A&C Black

Fry, M. P., Keatinge, N. P., & Rotblat, J. (Eds.). 2012. *Nuclear Non-Proliferation: And the Non-Proliferation Treaty*. Springer Science & Business Media.

Fuhrmann, M., & Sechser, T. S., 2015. Nuclear strategy, non-proliferation, and the causes of foreign nuclear deployments¹. *Non-proliferation Policy and Nuclear Posture: Causes and Consequences for the Spread of Nuclear Weapons*, 43.

Fukuyama, F. 1996. *Trust*, published by Free Press Paperbacks, Simon & Schuster Inc.

Fukuyama, F., 2012. *The Origins of Political Order*, London: Profile Books Limited.

Futter, A., 2021. *Vertical Proliferation Challenges. The Politics of Nuclear Weapons: New, updated and completely revised*.

Gaddis J, Gordon P, May E, Rosenberg J., 1999. *Cold War Statesmen Confront the Bomb: Nuclear Diplomacy Since 1945*. Oxford: Oxford University Press.

Galamas, F., 2015. The motivations behind the nuclear modernization programs of the P-5. *Nação e Defesa*.

Gallois, P.M., 1961. *The Balance of Terror: Strategy for the Nuclear Age*. Houghton Mifflin.

Gates, R.M., 2010. *Nuclear Posture Review Report*. Published by the U.S. Department of Defense, 6 April, 2010.

Gavin, F.J., 2015. Strategies of inhibition: U.S. grand strategy, the nuclear revolution, and non-proliferation. *International Security*, 40 (1).

George, A. L., & Bennett, A., 2005. *Case studies and theory development in the social sciences*. MIT Press.

George, J., 1989. International Relations and the Search for Thinking Space: Another View of the Third Debate, *International Studies Quarterly*, Volume 33, Issue 3, September 1989.

Ghālī, B. B., & United Nations 1995. *The United Nations and nuclear non-proliferation*. ONE.

- Gibbons, R.D., 2022. *The Hegemon's Tool Kit: U.S. Leadership and the Politics of the Nuclear Non-proliferation Regime*. Cornell University Press.
- Gibbons, R.D. and Herzog, S., 2022. Durable institution under fire? The NPT confronts emerging multipolarity. *Contemporary Security Policy*, 43 (1).
- Gibbons, R.D., 2024. How Great Powers Resist Emerging Norms: The United States and the Treaty on the Prohibition of Nuclear Weapons. *Peace Review*, 36 (2).
- Gilpin, R., 1981. *War and change in world politics*. Cambridge University Press.
- Gilpin, R., 1975. *U.S. Power and the Multinational Corporation: The Political Economy of Foreign Direct Investment*. New York: Basic Books.
- Gilpin, R., 1981. *War and Change in World Politics*. New York: Cambridge University Press.
- Glaser, C.L., 1997. The security dilemma revisited. *World politics*, 50 (1).
- Goh, E., 2013. *The struggle for order: Hegemony, hierarchy, and transition in post-Cold War East Asia*. Oxford University Press.
- Goh, E., 2019. Contesting Hegemonic Order: China in East Asia. *Security Studies*, 28 (3)
- Goldberg, D.T., 2012. The Tale of Two Obamas. *Qualitative Sociology*, 35.
- Goldberg, J., 2017. The Obama doctrine. In *The best American magazine writing 2017*. Columbia University Press.
- Goldblat, J., 1997. Nuclear-weapon-free zones: A history and assessment. *The Non-proliferation Review*, 4(3).
- Goldblat, J., 2000. The conference on disarmament at the crossroads: To revitalize or dissolve, *The Non-proliferation Review*, 7:2.
- Goldblat, J., 2002. *Arms Control: The New Guide to Negotiations and Agreements with New CD-ROM Supplement* published by SIPRI
- Goldgeier, J., Simons Jr, T.W., Pechatnov, V., Zubok, V., Caldwell, D., Thompson, J. and Thompson, S., 2019. Cold War Adviser: Llewellyn Thompson and the Making of U.S. Policy toward the Soviet Union. *Journal of Cold War Studies*, 21(3).
- Goldschmidt, B., 1995. The Supplies of Norwegian Heavy Water to France and the Early Development of Atomic Energy." IFS Info.
- Gorman, C. L., 2010. *Britain and the atomic bomb: MAUD to Nagasaki* (Doctoral dissertation, University of Bradford).
- Gormly J. L., 1984. The Washington Declaration and the "Poor Relation": Anglo-American Atomic Diplomacy, 1945–46. *Diplomatic History*, 8 (2).
- Gottemoeller, R., 2004. Nuclear weapons in current Russian policy in Miller, S.E. and Trenin, D. eds., 2004. *The Russian military: Power and policy*. MIT Press.
- Gottemoeller, R., 2015. The nuclear Non-proliferation Treaty at 45. *New Zealand International Review*, 40 (5).

- Gottemoeller, R., 2021. *Negotiating the New START Treaty*. Cambria Press.
- Gower, J., 2021. *Hubris, Hypocrisy or Hedge?* published 6 April 2021 on BASIC
- Gowing M., 1985. *How Britain produced the bomb*. The Guardian (London). 1985.
- Gowing, M., 1964. *Britain and atomic energy, 1939-1945*. London: Macmillan.
- Gowing, M., 1974. *Independence and Deterrence, Volume 1, Policy Making* (pp. 241-65). London: Macmillan.
- Gowing, M., 1989. *Britain, America and the Bomb*. In: Dockrill, M., Young, J.W. (eds) *British Foreign Policy, 1945–56*. Palgrave Macmillan, London.
- Grand, C., 2003. *Nuclear weapon states and the transparency dilemma*. *Transparency in Nuclear Warheads and Materials: The Political and Technical Dimensions*, published in the SIPRI Yearbook, 2003.
- Grant, W., 2008. *Research methods in politics*. Bloomsbury Publishing.
- Gray, C.S., 2015. *The Future of Strategy* published by Polity Press.
- Griffin, C.J. and Beese, S.A.E., 2022. *FPI Bulletin: Obama's Journey from Prague to Hiroshima*. Foreign Policy Initiative.
- Griffiths, M., 1999. *Fifty key thinkers in international relations (2nd Edition)* published by Routledge-London
- Grotius, H., 2019. *On the Law of War and Peace* published by Andos Books.
- Gusterson, H., 1999. *Nuclear weapons and the other in the Western imagination*. *Cultural Anthropology*, 14 (1).
- Guzzini, S., 1993. *Structural Power: The Limits of Neorealist Power Analysis*. *International Organization* 47 (3): 443– 78
- Guzzini, S., 2013. *Power, realism and constructivism*. Routledge.
- Haas, P. M., 1992. *Introduction: epistemic communities and international policy coordination*. *International organization*, 46 (1).
- Hadano, T., 2017. *Power Transition, Peaceful Change and the UN Security Council: Exploring the Role of Social Structure in International Political Change* (Doctoral dissertation, Durham University).
- Hall, I., 2006. *The International Thought of Martin Wight*. Palgrave Macmillan.
- Halle, L.J., 1967. *The Cold War as History*. New York: Harper and Row
- Halliday, F., 1992. *International Society as Homogeneity: Burke, Marx and Fukuyama* published in *Millennium Journal of International Studies*, Vol. 21, Issue 3.

Hammer, S., 2010. The role of narrative in political campaigning: An analysis of speeches by Barack Obama. *National Identities*, 12 (3).

Hanson, M., 2018. Normalizing zero nuclear weapons: The humanitarian road to the Prohibition Treaty. *Contemporary Security Policy*, 39 (3).

Hanson, M., 2022. *Rejecting nuclearism II: Disrupting the nuclear order*. In *Challenging nuclearism*. Manchester University Press.

Hanton, A., 2024. *Vassal State: How America Runs Britain*. Swift Press.

Hardin, R., 2002. *Trust and trustworthiness*. Russell Sage Foundation.

Hardin, R., Mearsheimer, J.J., Dworkin, G.D., and Goodin, R.E. (eds.) 1985. *Nuclear Deterrence: Ethics and Strategy* (University of Chicago Press) chapter Deterrence and Deontology (McMahan, J.).

Harries, M., 2020. *The UK's New Nuclear Warhead: Issues for Parliament*, published 11 January 2021 by RUSI.

Harries, M., 2020. *Will America Help Britain Build a New Nuclear Warhead* published 22 October 2020 by War on the Rocks.

Harries, M., 2021. *Why is the UK raising its nuclear stockpile limits?* published 2 April 2021 by the Bulletin of the Atomic Scientists

Harries, M., 2014. *The Role of Article VI in Debates About the Nuclear Non-Proliferation Treaty* (Doctoral dissertation, King's College London).

Harries, M., 2020. *Dependent Deterrent* published by RUSI Europe on 3 March 2020

Harrington de Santana, A., 2009. Nuclear weapons as the currency of power: Deconstructing the fetishism of force. *Non proliferation Review*, 16 (3).

Harrington, A.I., 2016. Power, violence, and nuclear weapons. *Critical Studies on Security*, 4 (1).

Harrington, J.H., 2001. Arms Control and Disarmament. In *Int'l L.* (Vol. 35).

Harris, R., 2002. The state of the special relationship. *Policy Review*, (113).

Hart, J., 1976. Three approaches to the measurement of power in international relations. *International organization*, 30 (2).

Hasenclever, A., Mayer, P. and Rittberger, V., 1996. Interests, power, knowledge: The study of international regimes. *Mershon International Studies Review*, 40 (Supplement_2)

Hayashi, M., 2021. NATO's Nuclear Sharing Arrangements Revisited in Light of the NPT and the TPNW, *Journal of Conflict and Security Law*, Volume 26, Issue 3, Winter 2021.

Henderson, C., 2010. The 2010 United States national security strategy and the Obama doctrine of 'necessary force'. *Journal of Conflict & Security Law*, 15 (3).

Hennessy, P., 2007. Cabinets and the Bomb. (Vol.11) British Academy: Occasional Paper.

Hennessy, P., 2010. The Secret State. Penguin

Henshall, P., 2000. The Nuclear Axis: Germany, Japan and the Atom Bomb Race, 1939-1945. Sutton Publishing.

Herd, G.P., 2010. Great Powers and Strategic Stability in the 21st Century: Competing visions of world order. Routledge.

Herzog, S., 2020. The nuclear fuel cycle and the proliferation “danger zone”. Journal for Peace and Nuclear Disarmament, 3 (1).

Heuser, B., 1997. NATO, Britain, France, and the FRG: Nuclear Strategies and Forces for Europe, 1949-2000. Basingstoke: Macmillan.

Heuser, B., 2005. The Special Relationship, Nuclear Strategy and Nuclear Weapons. *From Enmity to Friendship*.

Hewlett, R. G., Anderson, O. E., & Snell, A. H., 1962. The new world, 1939/1946. Physics Today, 15 (12).

Hewlett, R. G., Hewlett, R. G., & Holl, J. M., 1989. Atoms for peace and war, 1953-1961: Eisenhower and the Atomic Energy Commission (Vol. 3). Univ of California Press.

Hilsman, R., 1999. From Nuclear Military Strategy to a World Without War: A History and a Proposal. Greenwood Publishing Group.

Hinsley, F.H., 1986. Sovereignty (2nd Edition) published by Cambridge University Press

HM Government, 2006. The Future of the United Kingdom’s Nuclear Deterrent (Cm 6994)

HM Government, 2010, The Coalition: Our programme for Government (Cabinet Office)

HM Government, 2010. Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review (Cm 7948)

HM Government, 2011. The United Kingdom’s Future Nuclear Deterrent: The Submarine Initial Gate Parliamentary Report (Ministry of Defence)

HM Government Annual Update to Parliament on The United Kingdom’s Future Nuclear Deterrent (since 2011) with particular attention to 2019 and 2020 updates.

HM Government, 2013. The Trident Alternatives Review (Cabinet Office)

HM Government 2013. Scotland Analysis: Defence (Cm 8714)

HM Government, 2015. A Secure and Prosperous United Kingdom: The National Security Strategy and the Strategic Defence and Security Review 2015 (Cm 9161)

HM Government, 2020. The Defence Nuclear Organisation and the Ministry of Defence: Corporate Report the United Kingdom's Future Nuclear Deterrent: the 2020 update to Parliament published 17 December 2020

HM Government, 2021. Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy (Cm 403)

HM Government Policy Paper, 2021. *G7 Non-Proliferation Directors Group* published 19 April 2021.

HM Government-Ministry of Defence, 2021. *Defence in a Competitive Age* (Cm 411)

Hobson, A., 1996. Dark Sun: The Making of the Hydrogen Bomb-Review in *American Journal of Physics* 64, 829 (1996)

Hoell, M., 2022. P-5 Process: Ten Years On. *European Leadership Network*.

Hoell, M. and Persbo, A., 2022. Overcoming disunity: Reinvigorating the P-5 Process a decade on. *European Leadership Network*.

Hoffman, D.E., 2012. Band of Brothers Against the Bomb. *Arms Control Today*, 42 (3).

Hoffman, S., 1986. Hedley Bull and his contribution to international relations. *International Affairs* (Royal Institute of International Affairs 1944-), Vol. 62, No.2 (Spring, 1986).

Hoffmann, S. H. 1959. International Relations: The Long Road to Theory. *World Politics* 11 (3).

Hoffman, S.H. 1975. Notes on the Elusiveness of Modern Power. *International Journal* 30 (2).

Hollis, M., 1994. *The philosophy of social science: An introduction*. Cambridge University Press.

Holloway, D., 1981. Entering the nuclear arms race: the soviet decision to build the atomic bomb, 1939-45. *Social Studies of Science*.

Holslag, J., 2012. China: A deterrence paradox. In *Handbook of Nuclear Proliferation*. Routledge.

Holst, J.J.R., 1983. Confidence-building measures a conceptual framework. *Survival*, 25 (1).

Holsti, K. J. 1964. The Concept of Power in the Study of International Relations. *Background* 7 (4).

Holsti, K.J., 1996. *The state, war, and the state of war* (No. 51). Cambridge University Press.

Holsti, K.J., 2002. *The Problem of Change in International Relations Theory* in Yale H. Ferguson and R. J. Barry Jones, eds, *Political Space: Frontiers of Change and Governance in a Globalizing World*, Albany, NY: State University of New York Press.

Holsti, K.J., 2004. *Taming the Sovereigns: Institutional Change in International Politics* published by Cambridge Studies in International Relations

Holsti, K. J., 2009. *Theorising the Causes of Order: Hedley Bull's The Anarchical Society*. *Theorising international society: English School methods*. London: Palgrave Macmillan.

Holsti, K.J., 2009. *Solving the Peace and War Puzzles* published in the *International Studies Review*, Vol.11, Issue 2.

Hook, G.D., 1984. *The nuclearization of language: Nuclear allergy as political metaphor*. *Journal of Peace Research*, 21(3).

Hook, S., Hughes, H.S., Morgenthau, H.J. and Snow, C.P., 1961. *Western values and total war*. *Commentary*, 32 (4).

Hooton, P., 2022. *Nuclear weapons, just war, and Christian praxis*. *St Mark's Review*, (262).

Hopmann, P. T., & King, T. D., 2019. *From Cold War to détente: The role of the Cuban missile crisis and the partial nuclear test ban treaty*. In *Change in the international system*. Routledge.

Horowitz, S. and Ye, M., 2006. *China's Grand Strategy, the Korean Nuclear Crisis, and the Six-Party Talks*. *Pacific Focus*, 21 (2).

Horsburgh, N., 2015. *China and global nuclear order: From estrangement to active engagement*. Oxford University Press, U.S.A.

House of Commons, 2019. *Revisiting the National Security Strategy: The National Security Capability Review and the Modernising Defence Programme* by the Joint Committee on the National Security Strategy published 15 July 2019 (HC 2072 2017-2019)

House of Commons Defence Committee, 2020. *In Search of a Strategy: The 2020 Integrated Review* (HC 165)

House of Commons Defence Committee *In Search of Strategy—The 2020 Integrated Review: Government Response* published 20 October 2020

House of Commons Library Research Paper, 1998. The Strategic Defence Review White Paper published 15 October 1998 (Research Paper 98/91)

House of Commons Library Briefing, 2003. Ballistic Missile Defence No 03/28 published 26 March 2003

House of Commons Library Briefing, 2006. The Future of the British Nuclear Deterrent Research Paper 06/53 published 3 November 2006

House of Commons Library Briefing, 2014. Scotland referendum 2014: the impact of independence on Scotland published 12 June 2014

House of Commons Library Briefing, 2014. The UK-U.S. Mutual Defence Agreement by Claire Mills (SN/IA/3147)

House of Commons Library Briefing, 2016 Replacing the UK's 'Trident' Nuclear Deterrent (No. 7353) by Claire Mills.

House of Commons Library Briefing, 2016. Nuclear Weapons: Disarmament and Non-proliferation Regimes (No. 7634) by Claire Mills.

House of Commons Library Briefing, 2020. Overview: where are all the world's nuclear weapons (No. 9092) by Claire Mills.

House of Commons Library Briefing, 2020 The French Nuclear Deterrent (No. 4079) by Claire Mills.

House of Commons Library Briefing, 2020. A brief guide to previous British defence reviews (No 7313) by Mills, C., Brooke-Holland, L., Walker, N.

House of Commons Library, 2020. Briefing Paper (No. 4079): The French Nuclear Deterrent by Claire Mills published 20 November 2020

House of Commons Library Briefing, 2021. The 0.7% Aid Target (No 3714) published 10 June 2021

House of Commons Library Briefing Paper, 2021. Nuclear weapons at a glance: United Kingdom No. 9077 published 22 March 2021

House of Commons Library Standard Note, 2014. UK-U.S. Mutual Defence Agreement (SN/IA/3147) by Claire Mills.

House of Commons Public Accounts Committee, 2020. Defence Nuclear Infrastructure (and evidence sessions) (HC Paper 86)

House of Lords Library Note, 2013. Multilateral Nuclear Disarmament (LLN 2013/001) by Cruse, I published 21 January 2013

House of Lords Select Committee on International Relations Report (and evidence sessions) (April 2019) 'Rising Nuclear Risk, disarmament and the Nuclear Non-proliferation Treaty (HL Paper 338) published 24 April 2019

House of Lords Select Committee on International Relations Report (and evidence sessions) (December 2018) UK foreign policy in a shifting world order (HL Paper 250)

Houweling, H.W. and Siccama, J.G., 1991. Power transitions and critical points as predictors of great power war: Toward a synthesis. *Journal of Conflict Resolution*, 35 (4).

Howard, M.E., 1981. On fighting a nuclear war. *International Security*, 5 (4).

Hudson, J.J., 2019. China at War: Triumph and Tragedy in the Emergence of the New China, written by Hans van de Ven. *Journal of Chinese Military History*, 8 (2).

Hunt, J.R., 2022. *The nuclear club: How America and the world policed the atom from Hiroshima to Vietnam*. Stanford University Press.

Huntington, S., 1996. *The Clash of Civilisations and the remaking of World Order* published by Simon and Schuster

Hurd, I., 1999. Legitimacy and Authority in International Politics published in *International Organization*, 1999, Vol. 53 (2).

Hurrell, A., 2003. Chapter, 'Order and Justice in International Relations: What Is at Stake?',

Hurrell, A., 2007 *On Global Order: Power, Values, and the Constitution of International Society*. Oxford University Press.

Hurrell, A., 2013. Probing the institutional fabric of world politics: Hedley Bull's: *The Anarchical Society*. In *Classics of International Relations*. Routledge.

Hurrell, A., 2015. Kissinger and world order. *Millennium*, 44 (1).

ICRC, 2021. Nuclear weapons are finally outlawed; next step disarmament by Mardini, R., published 22 January 2021

Ikenberry, J.G., 2001. American grand strategy in the age of terror. *Survival*, 43 (4).

Indyk, M.S., Lieberthal, K.G. and O'Hanlon, M.E., 2012. Scoring Obama's foreign policy: A progressive pragmatist tries to bend history. *Foreign Aff.*, 91.

Indyk, M.S., Lieberthal, K.G. and O'Hanlon, M.E., 2013. *Bending history: Barack Obama's foreign policy*. Brookings Institution Press.

- Ingram, P., 2014. Can the 'P-5' process deliver on disarmament? Published in 'OpenSecurity' published by OpenDemocracy
- Ingram, P., 2015. Analysis: The P-5 Process-If we want a nuclear weapons free world then we need. Published by BASIC.
- IPPR, 2009. Shared Responsibilities: A national security strategy for the UK—the final report of the IPPR Commission on National Security in the 21st Century published June 2009.
- Jackson, P.T. 2020. The dangers of interpretation: C.A.W. Manning and the 'going concern' of international society in *Journal of International Political Theory* 2020;16 (2)
- Jackson, R., 1992. Pluralism in international political theory. *Review of International Studies*, 18 (3).
- Jackson, R., 2000. *The Global Covenant: Human Conduct in a World of States* published by Oxford University Press
- Jackson, R., 2007. *Sovereignty: The evolution of an idea*. Polity.
- Jackson, R. H., 1993. *Quasi-states: sovereignty, international relations and the Third World* (Vol. 12). Cambridge University Press.
- Jackson, R.H., 1995): *Political theory in International Society* in Booth and Smith, 1995.
- Jacobson, K., & Landau, L., 2003. *Researching Refugees: Some Methodological and Ethical Considerations in Social Science and Forced Migration.*, Geneva, UNHCR Evaluation and Policy Unit.
- James, A., 1993. System or society? Published in *Review of International Studies*, 19 (3).
- Jansen, S., 2015. *Anticipation, Interpellation and Confession on the Road to the Border* published in the *Journal of Borderlands Studies*, 30:2.
- Jargalsaikhan, E., 2018. Nuclear non-proliferation and disarmament at the crossroads—a Mongolian perspective. *Global Change, Peace & Security*, 30 (2).
- Jarvis, P., 1999. *The Practitioner-Researcher. Developing Theory from Practice*. Jossey-Bass Higher and Adult Education Series. Jossey-Bass Publishers.
- Jervis, R., 1978. Cooperation under the security dilemma. *World Politics*, 30 (2).
- Jervis, R., 1989. *The Meaning of the Nuclear Revolution*. Cornell University Press.
- Jervis, R., 2017. *How Statesmen Think*. In *How Statesmen Think*. Princeton University Press.
- Johnson, R., 2004. Is the NPT up to the Challenge of Proliferation? In *Disarmament Forum* (Vol. 4, No. 2004).

- Johnson, R., 2010. Assessing the 2010 NPT review conference. *Bulletin of the Atomic Scientists*, 66 (4).
- Jones, C.M. and Marsh, K.P., 2014. The Odyssey of the Comprehensive Nuclear-Test-Ban Treaty: Clinton, Obama, and the Politics of Treaty Ratification. *The Non-proliferation Review*, 21 (2).
- Jones, M., 2010. *After Hiroshima: The United States, Race and Nuclear Weapons in Asia, 1945–1965*. Cambridge University Press.
- Jones, M., 2017. *The Official History of the UK Nuclear Deterrent: Volume 2: The Labour Government and the Polaris Programme, 1964-1970*. Routledge.
- Jones, M., 2017. *The Official History of the UK Strategic Nuclear Deterrent: Volume 1: From the V-Bomber Era to the Arrival of Polaris, 1945-1964*. Routledge.
- Jones, M. and Young, J.W., 2010. Polaris, East of Suez: British Plans for a Nuclear Force in the Indo-Pacific, 1964-1968, *Journal of Strategic Studies*, Vol.33, No 6, 2010.
- Jones, R.E. 1981. The English school of international relations: A case for closure. *Review of International Studies*, 7 (1).
- Joyner, D., 2011. *Interpreting the Nuclear Non-proliferation Treaty* published by Oxford University Press.
- Joyner, D. H., 2009. *International law and the proliferation of weapons of mass destruction*. Oxford University Press.
- Kahan, J. H., & Long, A. K., 1972. The Cuban Missile Crisis: A Study of Its Strategic Context. *Political Science Quarterly*, 87 (4).
- Kafan, D., 2012. The End of a “Beautiful Friendship?” U.S. Relations with the Visegrad Countries under Barack Obama (2009–2013). *The Polish Quarterly of International Affairs*, 21(4).
- Kampelman, M.M., 2007. Zero Nuclear Weapons. *Vital Speeches of the Day*, 73 (4).
- Kane, A., 2018. Putting the Prague Agenda in Context: Looking Backward, Looking Forward, Looking Beyond. *New Perspectives*, 26 (1).
- Kane, A., 2019. What can the incremental approach to nuclear disarmament deliver?. In *Nuclear Disarmament* (pp. 133-147). Routledge.
- Kaplan, M., 1966. The New Great Debate: Traditionalism vs. Science in International Relations. In: Linklater, A. 2000. *International relations: critical concepts in political science*. London; New York: Routledge.
- Kaplow, J.M., 2022. *Signing away the bomb: The surprising success of the nuclear non-proliferation regime*. Cambridge University Press.
- Kapur, A., 1980. The nuclear spread: A third world view. *Third World Quarterly*, 2 (1)

- Kapur, A.,1996. Rogue states and the international nuclear order. *International Journal*, 51 (3).
- Katz, R.L., 1955. Skills of an effective administrator. *Harvard Business Review*, 33 (1).
- Katzenstein, P. J., Keohane, R. O., & Krasner, S. D.,1998. International organization and the study of world politics. *International organization*, 52 (4).
- Kazteridis, A. and Kroenig, M., 2018. Evaluating the Prague Agenda: An American Perspective¹. *New Perspectives*, 26 (1).
- Kauzlarich, D., Kramer, R.C. and Smith, B., 1992. Toward the study of governmental crime: Nuclear weapons, foreign intervention, and international law. *Humanity & Society*, 16(4).
- Kearn Jr, D.W., 2024. The Obama Legacy on Nuclear Weapons: Transformative Vision, Pragmatic Results. *Evaluating the Obama Presidency*. De Gruyter.
- Keeler, C., 2011. The end of the responsibility to protect. *Foreign Policy Journal*, 12.
- Kelly, L. M., & Cordeiro, M., 2020. Three principles of pragmatism for research on organizational processes. *Methodological innovations*, 13 (2).
- Kelsen, H., 2003. Principles of international law. The Lawbook Exchange, Ltd..
- Kennedy, P., 1987. *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500– 2000*. New York: Random House.
- Keohane, R. O. 1984. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ: Princeton University Press
- Keohane, R. O., 1988. International Institutions: Two Approaches, *International Studies Quarterly*, Volume 32, Issue 4.
- Keohane, R.O.,1989. *International Institutions and State Power: Essays in International Relations Theory*, Boulder, CO: Westview Press.
- Keohane, R. O., & Nye Jr, J. S., 2000. Globalization: What's new? What's not? (And so what?). *Foreign policy*.
- Keohane, R.O., 2005. *After hegemony: Cooperation and discord in the world political economy*. Princeton University Press.
- Kerr, P.K., 2011. *The 2010 Non-Proliferation Treaty (NPT) Review Conference: Key Issues and Implications*. DIANE Publishing.
- Kimball, D.G. and Thielmann, G., 2010. Obama's NPR: Transitional, Not Transformational. *Arms Control Today*, 40 (4).
- Kimball, D.G., 2015. Mr. President, 'Yes, We Can'. *Arms Control Today*, 45 (6).
- Kimball, D.G., 2021. The UK Nuclear U-Turn published April 2021 in *Arms Control Today*

- Kimball, D.G., 2022. Loosening the Nuclear Knot. *Arms Control Today*, 52 (9).
- Kimball, D., 2023. Advancing the CTBT and Defending the De Facto Nuclear Test Moratorium. *Arms Control Today*.
- King, G., Keohane, R. O., & Verba, S., 1994. 1. The Science in Social Science. In *Designing Social Inquiry*. Princeton University Press.
- King, G., Keohane, R. O., & Verba, S., 2021. *Designing social inquiry: Scientific inference in qualitative research*. Princeton University Press.
- King's College London and European Leadership Network report The P5 Process—Opportunities for Success in the NPT Review Conference written by Shetty, S. (EIN) and Williams, H. (KCL) and published June 2020
- Kissinger, H., 1957. Kissinger, Henry. *Nuclear Weapons and Foreign Policy*. Third Printing. Council on Foreign Relations/Harper & Brothers.
- Kissinger, H., 2015. *World Order*. Penguin Books.
- Kissinger, H., 2017. *A world restored: Metternich, Castlereagh, and the problems of peace, 1812-22*. Pickle Partners Publishing.
- Kitchen, N., 2011. The Obama doctrine—détente or decline? *European political science*, 10.
- Klotz, A., 2002. Transnational activism and global transformations: The anti-apartheid and abolitionist experiences. *European Journal of International Relations*, 8 (1).
- Kmentt, A., 2015. The development of the international initiative on the humanitarian impact of nuclear weapons and its effect on the nuclear weapons debate. *International Review of the Red Cross*, 97 (899).
- Knopf, J.W., 2022. Not by NPT alone: The future of the global nuclear order. *Contemporary Security Policy*, 43 (1).
- Knudsen, T.B., 2018. Fundamental institutions and international organizations: Solidarist architecture. In *International organization in the anarchical society: The institutional structure of world order* (pp. 175-202). Cham: Springer International Publishing.
- Knudsen, T. B., & Navari, C., (Eds.). 2018). *International organization in the anarchical society: the institutional structure of world order*. Springer.
- Knudsen, T. B., and Navari, C., eds. 2022. *Power Transition in the Anarchical Society: Rising Powers, Institutional Change and the New World Order*. Springer Nature.
- Koch, S.J., 2012. *Proliferation security initiative: Origins and evolution*. Washington: National Defense University Press.
- Kohl, Wilfred L., 1972 *French Nuclear Diplomacy*, Princeton: Princeton University Press.
- Kolbin, A., 2013. The Bangkok Treaty Protocol: Why still not Signed by P-5? *Security Index: A Russian Journal on International Security*, 19 (4).

- Kolodziej, E., A. 1974, "French international policy under De Gaulle and Pompidou: the politics of grandeur." (*No Title*) (1974).
- Kotter, J. P., 2001. "What leaders really do?' Harvard Business Review, Vol. 79 Issue 11.
- Kotterman, J., 2006. Leadership vs Management: What's the difference? Journal for Quality & Participation, Vol. 29 Issue 2.
- Krasner, S., 1982. Structural causes and regime consequences: regimes as intervening variables published in international organization, 36 (2).
- Krasner, S., (ed.), 1983. International Regimes, Ithaca: Cornell University Press.
- Krasner, S., 1991. Global Communications and National Power: Life on the Pareto Frontier. World Politics, 43 (3).
- Krasner, S., 1999. Sovereignty: Organised Hypocrisy Princeton University Press.
- Krasner, S., 2001. Abiding Sovereignty, International Political Science Review, 22(3).
- Kratochwil, F. V., 1991. Rules, norms, and decisions: On the conditions of practical and legal reasoning in international relations and domestic affairs (No. 2). Cambridge University Press.
- Krause, J., 2007. Enlightenment and nuclear order. International Affairs, 83 (3).
- Krepon, M., 2019. 35 Years Ago, in ACT. *Arms Control Today*, 49 (2).
- Krepon, M., 2021. Winning and losing the nuclear peace: the rise, demise, and revival of arms control. Stanford University Press.
- Kristensen, H.M., 2005. U.S. nuclear weapons in Europe. Natural Resources Defense Council, 226.
- Kristensen, H.M., 2020. 'The British Defense Review 2021' published by Federation of American Scientists 17 March 2021 [updated 11 May 2021]
- Kristensen, H.M and Korda, M., 2019. United States nuclear weapons, 2019 published 29 April 2019 in The Bulletin of American Scientists vol 75, 2019-Issue 3
- Kristensen, H.M and Korda, M., 2021. United Kingdom nuclear weapons, 2019 published 11 May 2021 in The Bulletin of American Scientists vol 77:3, 2021.
- Kristensen, H.M. and Korda, M., 2021. North Korean nuclear weapons, 2021. Bulletin of the Atomic Scientists, 77 (4).
- Kristensen, H.M. and Korda, M., 2021. Pakistani nuclear weapons, 2021. Bulletin of the Atomic Scientists, 77 (5).

Kristensen, H.M. and Korda, M., 2021. United Kingdom nuclear weapons, 2021. *Bulletin of the Atomic Scientists*, 77 (3).

Kristensen, H.M. and Korda, M., 2021. United States nuclear weapons, 2021. *Bulletin of the Atomic Scientists*, 77 (1).

Kristensen, H.M. and Korda, M., 2022. Indian nuclear weapons, 2022. *Bulletin of the Atomic Scientists*, 78 (4).

Kristensen, H.M. and Korda, M., 2022. Israeli nuclear weapons, 2021. *Bulletin of the Atomic Scientists*, 78 (1).

Kristensen, H.M. and Korda, M., 2022. Russian nuclear weapons, 2022. *Bulletin of the Atomic Scientists*, 78 (2).

Kristensen, H.M. and Norris, R.S., 2014. Slowing nuclear weapon reductions and endless nuclear weapon modernizations: A challenge to the NPT. *Bulletin of the Atomic Scientists*, 70 (4).

Kristensen, H.M., Korda, M. and Johns, E., 2023. French nuclear weapons, 2023. *Bulletin of the Atomic Scientists*, 79 (4).

Kristensen, H.M., Korda, M. and Reynolds, E., 2023. Chinese nuclear weapons, 2023. *Bulletin of the Atomic Scientists*, 79 (2).

Kroenig, M., 2014. Force or friendship. Explaining great power non-proliferation policy. *Security Studies*, 23 (1), 1-32.

Kroenig, M., 2016. U.S. nuclear weapons and non-proliferation: Is there a link? *Journal of Peace Research*, 53 (2).

Kubiak, K., 2019. Towards a more stable NATO-Russia relationship. *European Leadership Network*.

Kuchins, A.C., 2011. *The Obama Administration's "Reset Button" for Russia. Russia: The Challenges of Transformation*, New York (NY).

Kuchins, A. ed., 2013. *Russia after the Fall*. Carnegie Endowment.

Kugler, J., & Organski, A. F. K., 1989. The end of hegemony? *International Interactions*, 15 (2).

Kurokawa, T., 2018. Determinants of the Nuclear Policy Options in the Obama Administration: An Interview with Jon Wolfsthal. *Journal for Peace and Nuclear Disarmament*, 1 (2).

Kurosawa, M., 2010. *Background for President Obama's Nuclear Policy*. Osaka Jogakuin University Graduate School of International Collaboration and Coexistence in the 21st Century, Japan.

Kurosawa, M., 2020. The U.S. Initiative on Creating an Environment for Nuclear Disarmament. *Journal for Peace and Nuclear Disarmament*, 3 (2).

- Kurtz, M. J., 2013. Latin American state building in comparative perspective: Social foundations of institutional order. Cambridge University Press.
- Kutchesfahani, S.Z., 2018. *Global Nuclear Order*. Routledge.
- Kutchesfahani, S. Z., Davenport, K., and Connolly, E., 2016. The Nuclear Security Summits: An Overview of State Actions to Curb Nuclear Terrorism 2010-2016. An Arms Control Association and Fissile Materials Working Group Report.
- Kvale, S., & Brinkmann, S., 2009. Interviews: Learning the craft of qualitative research interviewing. Sage.
- Lamont, C., 2015. Research Methods in International Relations published by Sage Publications.
- Lantis, J.S., 2011. Irrational Exuberance? The 2010 NPT Review Conference, Nuclear Assistance, and Norm Change. *The Non-proliferation Review*, 18 (2).
- Lauren, P. G., Craig, G. A., & George, A. L., 2007. Force and statecraft: Diplomatic challenges of our time. Oxford University Press, U.S.A.
- Laves, W. H., & Wilcox, F. O., 1946. The first meeting of the general assembly of the United Nations. *American Journal of International Law*, 40(2).
- Lechner, S., 2022 Anarchy in International Relations. Oxford Research Encyclopaedia of International Studies.
- Leech, B. L., 2002. Asking questions: Techniques for semi structured interviews. *PS: Political Science & Politics*, 35 (4).
- Lemke, D. and Werner, S., 1996. Power parity, commitment to change, and war. *International Studies Quarterly*, 40(2).
- Leveringhaus, N. and De Estrada, K.S., 2018. Between conformity and innovation: China's and India's quest for status as responsible nuclear powers. *Review of International Studies*, 44(3).
- Leveringhaus, N and Hurrell, A., 2017. Chapter 15: Great power accommodation, nuclear weapons and concerts of power in Muller, H and Rauch, C. eds. *Great Power Multilateralism and the Prevention of War*. Routledge.
- Lewis, J., 2008. Minimum deterrence. *Bulletin of the Atomic Scientists*, 64 (3).
- Lewis, P.M., 2013. A Middle East free of nuclear weapons: possible, probable or pipedream? *International Affairs*, 89 (2).
- Li Bin, 2011. China's Potential to Contribute to Multilateral Nuclear Disarmament, *Arms Control Today*, March 2011.
- Lifton, R.J. and Falk, R., 1982. Indefensible weapons. *New York*.

- Lifton, R.J., 2023. Oppenheimer's tragedy—and ours. *Bulletin of the Atomic Scientists*, 79 (4).
- Light, M. 2008. Russian American Relations under George W. Bush and Vladimir Putin. *Irish Studies in International Affairs*, 19.
- Limbert, J., 2010. The Obama Administration. *The Iran Primer: Power, Politics, and U.S. Policy*, 146.
- Lindemyer, J., 2009. The Global Nuclear Energy Partnership: Proliferation Concerns and Implications. *Non-proliferation Review*, 16 (1).
- Lindsay, J.M., 2011. George W. Bush, Barack Obama and the future of U.S. global leadership. *International Affairs*, 87(4).
- Linklater, A., 2002. The problem of harm in world politics: implications for the sociology of states-systems. *International Affairs*, 78 (2).
- Linklater, A., 2005 (a). From International to World Society? English School Theory and the Social Structure of Globalisation. *Perspectives on Politics*, 3 (1).
- Linklater, A., 2005 (b). The English School (chapter 4) in *Theories of International Relations* by Burchill, Scott et al (3rd Edition). Palgrave Macmillan.
- Linklater, A., Suganami, H., 2006. *The English School of International Relations—A Contemporary Reassessment*. Cambridge University Press.
- Lipson, C., 2018. *How to write a BA thesis: A practical guide from your first ideas to your finished paper*. University of Chicago Press.
- Little, R., 1995. Neorealism and the English School: A Methodological, Ontological and Theoretical Reassessment published in the *European Journal of International Relations*, 1995-03, Vol. 1 (1).
- Little, R., 2000. The English School's contribution to the study of international relations. *European Journal of International Relations*, 6 (3).
- Little, R., 2002. Book Review of *World Politics: Progress and Its Limits (2000)* by James Mayall in *International Affairs (Royal Institute of International Affairs 1944-)*, vol. 78, no. 1, Wiley, Royal Institute of International Affairs, 2002.
- Little, R., 2006. The balance of power and great power management. *The anarchical society in a globalized world*.
- Little, R., 2007 (a). Chapter 'The Balance of Power and Great Power Management' in *The Balance of Power in International Relations; Metaphors, Myths and Models*. Cambridge University Press.
- Little, R., 2007 (b). *The balance of power in international relations*. Cambridge: Cambridge University Press.

- Little, R. and Williams, J. (eds.), 2006. *The Anarchical Society in a Globalised World*. Palgrave Macmillan.
- Locke, J. (undated edition) *Two Treatises of Government* reprinted by Amazon Books (ISBN: 9798527684346)
- Lodgaard, S., 2009. Toward a nuclear-weapons-free world. *Daedalus*, 138(4).
- Lodgaard, S., 2010. *Nuclear disarmament and non-proliferation: towards a nuclear-weapon-free world?* Taylor & Francis.
- Logan, D., 2020. *Dangerous Myths about China's Nuclear Weapons* published in *War on the Rocks* on 18 September 2020.
- Loke, B., 2016. Unpacking the politics of great power responsibility: Nationalist and Maoist China in international order-building. *European Journal of International Relations*, 22 (4).
- Loy, F., 2011. *Obama Abroad: Ambitious realism*. World Affairs.
- Lundestad, G., 2019. *The World's Most Prestigious Prize: The Inside Story of the Nobel Peace Prize*. Oxford University Press, U.S.A.
- Lybeck, J.A., 2011. *A global history of the financial crash of 2007–10*. Cambridge University Press.
- MacDonald, P.K. and Parent, J.M., 2021. The status of status in world politics. *World Politics*, 73 (2).
- Macmillan, H., 1971. *Riding the storm, 1956-1959 (Vol. 4)*. London: Macmillan.
- Maddock, S.J., 2010. *Nuclear apartheid: the quest for American atomic supremacy from World War II to the present*. University of North Carolina Press.
- Maguire, R., 2020. Never a credible weapon: nuclear cultures in the British government during the era of the H-bomb published in *The British Journal for the History of Science*, Vol.45, No.4.
- Mahnken, T.G., Evans, G., 2019 *Ambiguity, Risk and Limited Great Power Conflict* published in *Strategic Studies Quarterly*, Vol.13, No. 4 (Winter, 2019).
- Maitre, E., and Hautecouverture, B., 2022. *The NPT and the P-5 process: Conference report-P-5, Track 1.5 Meeting* published by *Fondation pour la recherche stratégique (FRS)*—26 January 2022.
- Makinda, S.M., 2000. *International Society and Eclecticism in International Relations Theory in Cooperation and Conflict*, 36(3).
- Makinda, S.M., 2002 (a). *Hedley Bull and Global Governance: A note on IR Theory* *The Australian Journal of International Affairs*, 56, (3).

- Makinda, S.M., 2002 (b). The global covenant as an evolving institution. *The International Journal of Human Rights*, 6 (1).
- Mallard, G., 2019. *Fallout: nuclear diplomacy in an age of global fracture*. University of Chicago Press.
- Malloy, S. L., 2008. *Atomic tragedy: Henry L. Stimson and the decision to use the bomb against Japan*. Cornell University Press.
- Malygina, A., Fikenscher, S.E. and Nielsen, J., 2017. Amid high tensions, an urgent need for nuclear restraint. *Bulletin of the Atomic Scientists*, 73 (4).
- Mandelbaum, M., 1977. Review of *The Anarchical Society: A Study of Order in World Politics.*, by H. Bull. *Political Science Quarterly*, 92(3).
- Manning, C.A.W., 1962. *The nature of international society*. London: London School of Economics and Political Science.
- Marsh, R. J., 1986. Soviet fiction and the nuclear debate. *Soviet Studies*, 38(2).
- Martin, L and Garnett, J., 1997. *British Foreign Policy: Chatham House Papers*. Pinter.
- Masterson, J., 2021. France to Coordinate P-5 Process. *Arms Control Today*, 51(2).
- Mattern, J.B., 2014. On being convinced: An emotional epistemology of international relations. *International Theory*, 6 (3).
- Maurer, J. D., 2022. *Competitive Arms Control: Nixon, Kissinger, and SALT, 1969-1972*, New Haven: Yale University Press.
- May, E. R., 1955. The United States, the Soviet Union, and the Far Eastern War, 1941-1945. *Pacific Historical Review*, 24(2).
- Mayall, J., 2000. *World Politics: Progress and its Limits*, London: Polity
- Mayall, J., 2009. The limits of progress: Normative reasoning in the English School. *Theorising international society: English School methods*.
- Mazarr, M.J., 2022. *The societal foundations of national competitiveness*. Rand Corporation.
- Mazarr, M.J., Priebe, M., Radin, A. and Stuth, C.A., (2016). *Understanding the current international order: [Building a sustainable international order series]*. Rand Corporation.
- McDonough, D.S., 2009. Beyond Primacy: Hegemony and 'Security Addiction' in U.S. Grand Strategy. *Orbis*, 53 (1).
- McFaul, M., 2018. *From cold war to hot peace: The inside story of Russia and America*. Penguin UK.

- McGarry, C., 2012. Backgrounder on the P-5 Conferences: London, Paris, Washington, and the Future. London: BASIC.
- McKeil, A., 2021. On the concept of international disorder. *International Relations*, 35 (2).
- McKeil, A., 2023. Order without victory: International order theory before and after liberal hegemony. *International Studies Quarterly*, 67 (1)
- Mearsheimer, J.J., 1993. The case for a Ukrainian nuclear deterrent. *Foreign Affairs*.
- Mearsheimer, J.J., 2003. *The Tragedy of Great Power Politics* (Updated edition). WW Norton & Company.
- Mearsheimer, J. J., 2014. Anarchy and the Struggle for Power. In *The Realism Reader*, Routledge.
- Mehan, H., Nathanson, C.E. and Skelly, J.M., 1990. Nuclear discourse in the 1980s: The unravelling conventions of the cold war. *Discourse & Society*, 1(2).
- Meitner, L., & Frisch, O. R., 1939. Disintegration of uranium by neutrons: a new type of nuclear reaction. *Nature*, 143 (3615).
- Melarrred, M., 2021. Multilateral Steps to Reduce Nuclear Risks. NTI.
- Mertens, D.M., 1998. *Research methods in education and psychology: integrating diversity with qualitative and quantitative approaches*. Thousand Oaks, CA: Sage
- Meyer, P., 2010. Looking Back: Prague One Year Later: From Words to Deeds? *Arms Control Today*, 40 (4).
- Meyer, P., 2021. Folding the umbrella: nuclear allies, the NPT and the ban treaty. In *The Nuclear Ban Treaty*. Routledge.
- Miller, J.D.B. and Vincent, R.J., 1990. *Order and Violence: Hedley Bull and International Relations*. Oxford University Press.
- Miller, J.D.B., 1991. EH Carr: The Realist's Realist: Reviewed Work: *The Twenty Years' Crisis, 1919 to 1939: An Introduction to the Study of International Relations* E.H. Carr. *The National Interest*.
- Miller, S. E., 2021. Nuclear hotlines: Origins, evolution, applications. *Journal for Peace and Nuclear Disarmament*, 4 (sup1).
- Miller, S.E., 2007. Proliferation, disarmament and the future of the Non-proliferation Treaty. In *Nuclear Proliferation and International Security*. Routledge.
- Miller, J.D.B. and Vincent, R.J., 1990. *Order and Violence: Hedley Bull and International Relations*. Oxford University Press.
- Milner, H., 1991. The assumption of anarchy in international relations theory: a critique. *Review of International Studies*, 17(1).

- Minkina, M., 2022. The relations of the Russian Federation with the West between 1991 and 2014. *Przegląd Wschodnioeuropejski*, 13 (2).
- Mitchell, T., 1991. The limits of the state: Beyond statist approaches and their critics. *American political science review*, 85(1).
- Młynarski, T., 2017. The role of the international atomic energy agency in maintaining nuclear peace and non-proliferation regime in the 21st century. *Politeja-Pismo Wydziału Studiów Międzynarodowych i Politycznych Uniwersytetu Jagiellońskiego*, 14(50).
- Mohan, C.R., 2013. Prague as the Non-proliferation Pivot. *The Washington Quarterly*, 36 (2).
- Moniz, E.J. and Nunn, S., 2021. Strengthening the Foundation for Nuclear Stability. NTI
- Moon, W.M., 2020. Beyond Arms Control: Cooperative Nuclear Weapons Reductions—A New Paradigm to Roll Back Nuclear Weapons and Increase Security and Stability. *Journal for Peace and Nuclear Disarmament*, 3(1).
- Moore, R., 2021. Rudolf Peierls's Outline of the Development of the British Tube Alloy Project: A 1945 Account of the Earliest UK Work on Atomic Energy, *Nuclear Technology*, 207:sup1, S374-S379
- Morgan, P.M., 2003. *Deterrence Now*. Cambridge.
- Morgenthau, H., 1948. *Politics among Nations: The struggle for power and peace*, New York: Alfred A. Knopf.
- Morse, J.C. and Keohane, R.O., 2014. Contested multilateralism. *The Review of international organizations*, 9.
- Moses, J., & Knutsen, T., 2012. Chapter 1. Introduction. *Ways of Knowing: Competing Methodologies in Social and Political Research*. Bloomsbury.
- Moxley Jr, C.J., 2010. Obama's Nuclear Posture Review: An Ambitious Program for Nuclear Arms Control but a Retreat from the Objective of Nuclear Disarmament. *Fordham Int'l LJ*, 34.
- Mukhatzhanova, G., 2014. Rough seas ahead: Issues for the 2015 NPT review conference. *Arms Control Today*, 44 (3).
- Müller, H., 2005. *The 2005 NPT Review Conference: Reasons and consequences of failure and options for repair (Vol. 31)*. Stockholm: Weapons of Mass Destruction Commission.
- Müller, H., 2010. The 2010 NPT Review Conference: some breathing space gained, but no breakthrough. *The International Spectator*, 45 (3).
- Müller, H., 2011. A nuclear non-proliferation test: Obama's Nuclear Policy and the 2010 NPT Review Conference. *Non-proliferation Review*, 18 (1).
- Müller, H., Fischer, D., & Kötter, W., 1994. *Nuclear non-proliferation and global order*. A SIPRI Publications.

- Muller, H., Fisher, D. and Kotter, W. eds. (1994) *Nuclear Non-proliferation and the Global Order*, published by SIPRI
- Müller, H. and Rauch, C., 2020. Great power multilateralism and the prevention of war. Taylor & Francis.
- Muti, A., Christopher, G. and Stott, N., 2023. The Role of Verification in Supporting Irreversible Nuclear Disarmament. *Journal for Peace and Nuclear Disarmament*, 6 (2).
- Nalebuff, B., 1988. Minimal nuclear deterrence. *Journal of Conflict Resolution*, 32 (3).
- Narang, V., 2014. Nuclear strategy in the modern era: Regional powers and international conflict. Princeton University Press.
- Narang, N., Gartzke, E., & Kroenig, M., 2015. *Non-proliferation Policy and Nuclear Posture*. New York: Routledge.
- Narang, N., & Mehta, R. N. 2019. The unforeseen consequences of extended deterrence: Moral hazard in a nuclear client state. *Journal of Conflict Resolution*, 63 (1).
- Nardin, T., & Mapel, D. R. (Eds.). 1992. *Traditions of international ethics* (No. 17). Cambridge University Press.
- Nardin, T., 1998. Legal positivism as a theory of international society. *International society: Diverse ethical perspectives*.
- National Audit Office 2018. *The Defence Nuclear Enterprise: A Landscape Review* published 22 May 2018 (HC 1003)
- National Audit Office 2020. *Managing infrastructure projects on nuclear-regulated sites* (HC 19) published 10 January 2020 (Report conclusion).
- Navari, C., 2009. Introduction: Methods and Methodology in the English School. In: Navari, C. (eds) *Theorising International Society*. Palgrave Studies in International Relations Series. Palgrave Macmillan, London.
- Navari, C., 2016. Primary and Secondary Institutions: Quo Vadis? *Cooperation and Conflict* 51 (1).
- Navari, C., 2019. Functionalism versus federalism: Alternative visions of European unity. In *Visions of European unity*. Routledge.
- Navari, C., 2020. Agents versus structures in English School theory: Is co-constitution the answer?. *Journal of International Political Theory*, 16(2).
- Navari, C. ed., 2020. *International Society: The English School*. Springer Nature.
- Nayan, R., 2009. *The Nuclear Agenda of the Obama Administration*. Taylor and Francis.

- Nayar, G., 2011. Specifications of Nunn-Lugar programme. *Strategic Studies*, 31(3).
- Neumann, I.B., 2005. John Vincent and the English School of International Relations. In *The Future of International Relations*. Routledge.
- Neumann, I.B., 2008. Discourse analysis. In *Qualitative methods in international relations: A pluralist guide*. London: Palgrave Macmillan UK.
- Njølstad, O. (Ed.). 2010. Nuclear proliferation and international order: challenges to the Non-Proliferation Treaty. Routledge.
- Norris, R.S. and Kristensen, H.M., 2010. U.S. nuclear forces, 2010. *Bulletin of the Atomic Scientists*, 66 (3).
- Norris, R.S., Kristensen, H.M., 2016. Global nuclear inventories, 1945-2010, *Bulletin of the Atomic Scientists* 2016 66:4.
- Northouse, P., 2007. *Leadership theory and practice*. Thousand Oaks, CA: Sage Publications.
- Nozick, R., 1974. *Anarchy, State and Utopia* published by Basic Books, New York.
- Nuclear Threat Initiative, 2019. U.S. nuclear weapons in Europe published 28 June, 2019
- Nye, J.S., 1986. Ethics and the Nuclear Future. *The World Today*, 42 (8/9).
- Nye, J. S., 1988. *Nuclear ethics*. Simon and Schuster.
- Nye, J. S., 1992. What new World Order? In *Foreign Affairs*, Spring 1992, Vol. 71. No. 2 (Spring, 1992). Council on Foreign Relations.
- Nye, J.S., 2004. *Soft Power: The Means to Success in World Politics*. New York: Public Affairs.
- Nye, J.S., 2008. *International Relations: The Relevance of Theory to Practice*, Reus-Smit and Snidal (eds.) *The Oxford Handbook of International Relations*. Oxford: Oxford University Press.
- Nye, J.S. and Keohane, R., 1971. *Transnational Relations and World Politics* in *International Organization*, 25 (3).
- Obama, B., 2020. *A Promised Land*. Penguin UK.
- Obama, B. and Dionne Jr, E.J., 2018. *We are the change we seek: The speeches of Barack Obama*. Bloomsbury Publishing.
- Oberthür, S., & Gehring, T., 2006. Institutional interaction in global environmental governance: The case of the Cartagena Protocol and the World Trade Organization. *Global Environmental Politics*, 6 (2).

- O'Driscoll, M., & Walsh, J., 2014. Ireland and the 1975 NPT Review Conference: Norm-building and the role of small states. *Irish Studies in International Affairs*, 25, 101-116.
- Ogilvie-White, T., 2011 (a). *On Nuclear Deterrence: The Correspondence of Sir Michael Quinlan*. IISS/Routledge.
- Ogilvie-White, T., 2011 (b). Part One: The logic and morality of nuclear deterrence. *Adelphi Series*, 51.
- Ogilvie-White, T. 2013 (a). Great Power Responsibility and Nuclear Order, *The Non-proliferation Review*, 20 (1).
- Ogilvie-White, T., 2013 (b). Australia and the Non-Proliferation and Disarmament Initiative: difficult times for disarmament diplomacy. Australian Strategic Policy Institute.
- Ogilvie-White T. and Santoro D., eds. 2012. *Slaying the nuclear dragon disarmament dynamics in the twenty-first century*. Athens: University of Georgia Press
- Ogilvie-White, T. and Simpson, J., 2003. The NPT and its 2003 PrepCom session: A regime in need of intensive care. *The Non-proliferation Review*, 10 (1).
- Oakeshott, M., 1991. *Rationalism in politics and other essays*. Liberty Fund Inc.
- Okuda, H., 2010. ISSA Proceedings 2010—Obama's Rhetorical Strategy In Presenting "A World Without Nuclear Weapons" published in *The Rozenberg Quarterly*.
- Onderco, M., 2012. Reality of Norms and Reality: Reply to Fred Grunfeld in *Amsterdam Law Forum*, 4(1).
- Ondrejcsak, R., 2009. American foreign and security policy under Barack Obama: change and continuity. *Panorama of global security environment*.
- Organski, A.F.K. and Kugler, 1989. The end of hegemony? *International Interactions*, 15 (2).
- Orlikowski, W. J., & Baroudi, J. J., 1991. Studying information technology in organizations: Research approaches and assumptions. Information systems research, 2 (1).*
- Osiander, A., 1994, *The States System of Europe, 1640-1990: Peace-making and Conditions of International Stability*, Oxford: Oxford University Press.
- Osiander, A., 2001. Sovereignty, International Relations and the Westphalian Myth published in *International Organisation*, 55/2 (Spring 2001)
- Oswald, R., 2011. U.S.-China Nuclear Talks Stymied by Distrust and Miscommunication, *The Atlantic Magazine*, 31 October 2011
- Owen, D., 1985. Anglo-French nuclear cooperation. *The World Today*, 41(8/9).
- Oxford Analytica, 2024. China's nuclear modernisation will continue. *Emerald Expert Briefings*, (oxan-db).

- Pais, A., 1991. Niels Bohr's times: In physics, philosophy, and polity. Oxford University Press.
- Pant, H.V., 2007. The U.S.–India nuclear deal: The beginning of a beautiful relationship? *Cambridge review of international affairs*, 20 (3).
- Pant, H. V. (Ed.). 2012. *Handbook of nuclear proliferation*. Routledge.
- Parmar, I., 2010. Plus ca change? American foreign policy under Obama. *Political Insight*, 1 (1).
- Parr, H., 2013. The Nuclear Myth': Edward Heath, Europe, and the International Politics of Anglo-French Nuclear Co-Operation 1970–3. *The International History Review*, 35 (3).
- Parrat, C.F., 2017. On the evolution of primary and secondary institutions of international society *International Studies Quarterly*, Vol. 61, Issue 3, September 2017.
- Friedner Parrat, C., 2023. Interpretivists in the English School: Aren't we all?. *Journal of International Political Theory*, 19 (2).
- Parrat, C.F., 2024. Change in international order? An institutional analysis. *European Journal of International Security*, 9 (3).
- Parrat, C.F. and Spandler, K., 2020. Using the English School to understand current issues in world politics. In *International Society: The English School* (pp. 145-160). Cham: Springer International Publishing.
- Parsi, T., 2017. *Losing an enemy: Obama, Iran, and the triumph of diplomacy*. Yale University Press.
- Patton, M. Q., 2005. Qualitative research. *Encyclopaedia of statistics in behavioural science*.
- Paul, D., 1999. Sovereignty, survival and the Westphalian blind alley in International Relations. *Review of International Studies*, 25 (2).
- Paul, S. H., 2000. *Nuclear Rivals: Anglo-American Atomic Relations, 1941-1952*. Ohio State University Press.
- Paul, T.V., 2000. *Power versus prudence: Why nations forgo nuclear weapons*. McGill-Queen's Press-MQUP.
- Paul, T. V., Wirtz, J., and Fortmann, M. 2004. *Balance of Power: Theory and Practice in the 21st Century*. Stanford, CA: Stanford University Press.
- Pearce, J.M. and Deckenberger, D.C., 2018. A National Pragmatic Safety Limit for Nuclear Weapons Quantities published 14 June 2018 in *Safety*, 4,25
- Pearson, L. B., 1972. *Mike: the memoirs of The Right Honourable Lester B. Pearson; volume 1, 1897-1948*. University of Toronto Press, Toronto, ON, CA.
- Pelopidas, B., 2015. Re-imagining global nuclear ordering beyond proliferation and deterrence. Paper prepared for POSSE 2015.

Pelopidas, B., 2016. Nuclear weapons scholarship as a case of self-censorship in security studies. *Journal of Global Security Studies*, 1(4).

Pelopidas, B., 2017. The unbearable lightness of luck: Three sources of overconfidence in the manageability of nuclear crises. *European journal of international security*, 2 (2).

Pelopidas, B. ed., 2023. Nuclear France: New Questions, New Sources, New Findings. Taylor & Francis.

Pelopidas, B. and Philippe, S., 2023. Unfit for purpose: reassessing the development and deployment of French nuclear weapons (1956–1974). In Nuclear France. Routledge.

Pelopidas, B. and Egeland, K., 2024. The false promise of nuclear risk reduction. *International Affairs*, 100 (1).

Perkovich, G., 1999. India's nuclear bomb: the impact on global proliferation. University of California Press.

Perkovich, G., 2008. Principles for Reforming the Nuclear Order. Security Studies Department (IFRI).

Perkovich, G., Chalmers, M., Pifer, S., Schulte, P. and Tandler, J., 2012. Looking beyond the Chicago Summit: Nuclear weapons in Europe. The Carnegie Papers.

Perry, W.J. and Schlesinger, J.R., 2009. America's Strategic Posture. Washington: U.S. Institute of Peace Press, 13.

Pervin, N. and Mokhtar, M., 2022. The interpretivist research paradigm: A subjective notion of a social context. *International Journal of Academic Research in Progressive Education and Development*, 11(2).

Pierre, A.G., 1972. Nuclear Politics: The British Experience with an Independent Strategic Force, 1939-1970 published October 1972 in *International Affairs* vol 48, issue 4, pages 673, p178 and cited in Freedman and Michaels, 2019 page 341.

Pifer, S., 2015, March. U.S.-Russia Relations in the Obama Era: From Reset to Refreeze? In OSCE Yearbook 2014. Nomos Verlagsgesellschaft mbH & Co. KG.

Pifer, S., 2015. Obama's Faltering Nuclear Legacy: the 3 R's. *The Washington Quarterly*, 38 (2).

Pikayev, A., 2009. Russia and missile defences. *Readings in European Security*, p.78.

Plant, T., 2020. Britain's Nuclear Projects: Less Bang and More Whimper published by RUSI 22 January 2020.

Podvig, P., 2011. Instrumental influences: Russia and the 2010 nuclear posture review. *Non-proliferation Review*, 18 (1).

Pomper, M.A., 2022. Everything Counts: Building a Control Regime for Nonstrategic Nuclear Warheads in Europe. James Martin Center for Non-proliferation Studies (CNS).

- Poole, J. B., 1990. Independence and interdependence: a reader on British nuclear weapons policy. Brassey's.
- Popp, R., 2014. Introduction: Global order, cooperation between the superpowers, and alliance politics in the making of the nuclear non-proliferation regime. *The International History Review*, 36 (2).
- Popp, R., Horowitz, L., & Wenger, A. (Eds.). 2016. *Negotiating the nuclear non-proliferation treaty: Origins of the nuclear order*. Taylor & Francis.
- Postol, T.A., 2014. How the Obama administration learned to stop worrying and love the bomb. *The Nation*, 10.
- Potter, W.C., 2005. The NPT review conference: 188 states in search of consensus. *The International Spectator*, 40 (3).
- Potter, W. and Mukhatzhanova, G., 2011. Chapter Two: NAM, nuclear non-proliferation and the 2010 NPT Review Conference. *Adelphi Series*, 51(427).
- Potter, W.C. and Pack, B., 2014. *Advancing Nuclear Disarmament: The U.S. Role*. Centre for Nuclear Non-Proliferation and Disarmament.
- Potter, J. and Wetherell, M., 2014. Discourse and social psychology. *The discourse studies reader*.
- Pouponneau, F., & Mérand, F., 2017. Diplomatic practices, domestic fields, and the international system: Explaining France's shift on nuclear non-proliferation. *International Studies Quarterly*, 61(1).
- Priest, A., 2006. In American Hands: Britain and the United States and the Polaris Nuclear Project 1962-1968 published 8 August 2006 in *Contemporary British History*, Vol. 19, 2005, Issue 3.
- Prindle, N., 1998. The U.S.-China lab-to-lab technical exchange program. *The Non-proliferation Review*, 5(3).
- Puchala, D.J. and Hopkins, R.F., 1982. International regimes: lessons from inductive analysis. *International organization*, 36 (2).
- Putnam, R. D., 2019. Two-level games: The impact of domestic politics on transatlantic bargaining. In *America and Europe in an Era of Change*. Routledge.
- Quester, G. H., 1974. Taiwan and Nuclear Proliferation. *Orbis-A Journal of World Affairs*, 18 (1).
- Quester, G. H., 2005. If the Nuclear Taboo Gets Broken published in *Naval War College Review*, 58(2).
- Quinlan, M., 1993. The future of nuclear weapons: policy for Western possessors. *International Affairs*, 69 (3).
- Quinlan, M., 1997. Thinking About nuclear weapons: Whitehall Papers 41 (RUSI)

- Quinlan, M., 2004. Chapter The British Experience of Getting MAD by Skoloski (page 275, note 12)
- Quinlan, M., 2006. Deterrence and Deterrability', in Kenyon, I., Simpson, J. (eds.) Deterrence and the new global security environment. Routledge.
- Quinlan, M., 2007. Abolishing nuclear armouries: Policy or pipedream? *Survival*, 49 (4)
- Quinlan, M., 2009. Thinking about nuclear weapons: Principles, problems, prospects. Oxford University Press, U.S.A.
- Quinn, A., 2018. The New Liberalism, Gheciu, A. and Wohlforth, W.C. (eds.). Oxford University Press.
- Rajagopalan, R., 2009. Obama's Prague Speech: A New Push for Nuclear Disarmament. Institute of Peace & Conflict Studies.
- Rajaraman, R., 2020. On the Unravelling of Global Nuclear Order. *National Security*, 3 (2).
- Reed, T., & Stillman, D., 2010. The nuclear express: A political history of the bomb and its proliferation. Zenith Press.
- Reiss, M. B., 2004. The Nuclear Tipping Point: Prospects for a World of Many Nuclear Weapons States. The nuclear tipping point: Why states reconsider their nuclear choices.
- Reiss, M.B., 2021. Britain in a Contested World published 25 May 2021 *Survival*, Volume 63, 2021, Issue 3 *Handbook of Political Science*. Oxford University Press.
- Rengger, N. J., 2000. International relations, political theory and the problem of order: Beyond international relations theory? Routledge.
- Reus-Smit, C., 1997. The Constitutional Structure of International Society and the Nature of Fundamental Institutions published in *International Organization*, Autumn 1997, Vo. 51, No. 4.
- Reus-Smit, C., 2002. Imagining society: constructivism and the English School published in *The British Journal of Politics and International Relations*, 2002-10, Vol.4 (3).
- Rhodes, B., 2019. The world as it is: A memoir of the Obama White House. Random House Trade Paperbacks.
- Rhodes, R., 1996. Dark sun: the making of the hydrogen bomb. New York, Simon & Schuster.
- Rhodes, R., 2012. The making of the atomic bomb. Simon and Schuster.

- Rhodes, R. A., 1997. Understanding governance: Policy networks, governance, reflexivity and accountability. Open University.
- Richardson, J.L., 1990. The Academic Study of International Relations, chapter in Order and Violence: Hedley Bull and International Relations (Miller, J.D.B. and Vincent, R.J. eds.) published by Oxford University Press.
- Ritchie, N., 2008. Trident and British Identity: Letting Go of Nuclear Weapons published by Bradford Disarmament Research Centre, September 2008.
- Ritchie, N., 2009 (a). Stepping down the nuclear ladder: Options for a path to zero published by Bradford Disarmament Research Centre, May 2009
- Ritchie, N., 2009 (b). Deterrence Dogma? Challenging the relevance of British Nuclear Weapons published in *International Affairs* 85: 1 (2009).
- Ritchie, N., 2011. Rethinking security: a critical analysis of the Strategic Defence and Security Review. *International affairs*, 87 (2).
- Ritchie, N., 2013 (a). Pathways and purposes for P-5 nuclear dialogue. European Leadership Network Policy Brief.
- Ritchie, N. 2013 (b). Valuing and Devaluing nuclear weapons published in *Contemporary Security Policy*, Vol. 34, No.1, 2013.
- Ritchie, N., 2019. A hegemonic nuclear order: Understanding the Ban Treaty and the power politics of nuclear weapons. *Contemporary Security Policy*, 40 (4).
- Ritchie, N. and Egeland, K., 2020. The diplomacy of resistance: power, hegemony and nuclear disarmament. In *The 2017 Nuclear Ban Treaty*. Routledge.
- Ritchie, N. and Pelopidas, B., 2015. European nuclear nationalism: UK and French perspectives on nuclear disarmament. In *Global nuclear disarmament*. Routledge.
- Roberts, B., 2007. 'All the king's men'? Refashioning global nuclear order. *International Affairs*, 83(3).
- Roberts, B., 2019. On creating the conditions for nuclear disarmament: Past lessons, future prospects. *The Washington Quarterly*, 42 (2).
- Roberts, B., 2020. Major Power Rivalry and Nuclear Risk Reduction: Perspectives from Russia, China, and the United States (No. LLNL-TR-809702). Lawrence Livermore National Lab. (LLNL), Livermore, CA (United States).
- Roberts, B., 2021. Taking stock: U.S.–China track 1.5 nuclear dialogue. Center for Global Security Research.
- Roberts, G., 2012. Role of nuclear weapons in NATO's deterrence and defense posture review: Prospects for change. *Tactical nuclear weapons and NATO*. Strategic Studies Institute, U.S. Army War College.

- Roberts, I., (ed) (2019) *Satow's Diplomatic Practice—7th Edition*, Oxford: Oxford University Press.
- Roberts, K., 2014. Détente 2.0? The Meaning of Russia's "Reset" with the United States. *International Studies Perspectives*, 15 (1).
- Roehrig, T., 2017. *Japan, South Korea, and the United States Nuclear Umbrella: Deterrence After the Cold War*. New York Chichester, West Sussex: Columbia University Press
- Rousseau, Jean-Jacques, 1998. *The Social Contract* published by Wordsworth Classics.
- Rowland, R. C., & Jones, J. M., 2016. Reagan's Strategy for the Cold War and the Evil Empire Address. *Rhetoric and Public Affairs*, 19(3).
- Ruggie, J. G., 1975. International Responses to Technology: Concepts and trends published in *International Organisation*, 1975, Vol. 29 (3)
- Ruggie, J. G., 1998. What Makes the World Hang Together? Neo-utilitarianism and the Social Constructivist Challenge published in *International Organization* 52, 4, Autumn.
- Russell, B., 1938. *Power: A New Social Analysis*. London: George Allen & Unwin.
- Ruzicka, J., 2010. Reflections on the 2010 NPT review conference. *Medicine, Conflict and Survival*, 26 (4).
- Ruzicka, J., 2017. Chapter 8, A Plea for Restraint: The Anarchical Society and Nuclear Proliferation in *The Anarchical Society at 40*, Suganami, H., Carr, M., Humphreys, A. (eds.), published by Oxford University Press.
- Ruzicka, J., 2018. Behind the veil of good intentions: power analysis of the nuclear non-proliferation regime. *International Politics*, 55.
- Ruzicka, J. and Wheeler, N.J., 2010. The puzzle of trusting relationships in the Nuclear Non-Proliferation Treaty, *International Affairs*, Volume 86, Issue 1, January 2010.
- Ruzicka, J. and Wheeler, N.J., 2015. Trust building in nuclear disarmament. In *Global Nuclear Disarmament*. Routledge.
- Sagan, C., 2013. Nuclear war and climatic catastrophe. In *Thinking About Nuclear Weapons*. Routledge.
- Sagan, S. D., 1996. Why do states build nuclear weapons? Three models in search of a bomb. *International security*, 21(3).
- Sagan, S.D. and Vaynman, J., 2011. Conclusion: Lessons learned from the 2010 nuclear posture review. *Non-proliferation Review*, 18 (1).

Sagan, S. D., and Waltz, K. N., 2013. *The spread of nuclear weapons: an enduring debate: with new chapters on Iran, Iraq, and North Korea, and on the prospects for global nuclear disarmament.* WW Norton & Company.

Said E.W., 1984. *Permission to Narrate.* *Journal of Palestine studies.* 13:27–48.

Said, E.W., 2003. *Orientalism,* Penguin

Saltini, A., 2023. *AI and Nuclear Command, Control and Communications: P-5 Perspectives.* The European Leadership Network.

Sanders, D., 2002. *Behaviouralism.* In: Marsh, D. & G. Stoker. *Theory and methods in political science .* Basingstoke: Palgrave.

Sanders, M. and Koopman, C., 2011. *Obama and Pragmatism.* *Contemporary Pragmatism,* 8 (2).

Sarkar, J., 2013. *India's Nuclear Limbo and the Fatalism of the Nuclear Non-Proliferation Regime, 1974–1983,* *Strategic Analysis,* 37:3.

Saxena, A., 2023. *Nuclear Doctrines of Great Powers and Vertical Nuclear Proliferation Trends.* In *The Global Nuclear Landscape.* Routledge.

Scheinman, L., 1991. *Atomic Energy: The View from France [Review of *Atomic Rivals.*, by B. Goldschmidt].* *Science,* 251 (4998).

Schell, J., 2000. *The Fate of the Earth and the Abolition: And, The Abolition.* Stanford University Press.

Schelling, T. C., 1980. *The Strategy of Conflict: with a new Preface by the Author.* Harvard University Press.

Schelling, T. C., 1985. 'What went wrong with arms control?' *Foreign Affairs* 64.2 (1985).

Schelling, T. C., 2020. *Arms and influence.* Yale University Press.

Schlosser, E., 2013. *Command and control: Nuclear weapons, the Damascus accident, and the illusion of safety.* Penguin.

Schmidt, D.R. and Williams, J., 2023. *The normativity of global ordering practices.* *International Studies Quarterly,* 67 (2).

Schouenborg, L., 2011. *A New Institutionalism? The English School as International Sociological Theory* *International Relations* 7 (5).

Schouenborg, L. 2012 (a). *The Scandinavian international society: primary institutions and binding forces, 1815-2010.* Routledge.

Schouenborg, L., 2012 (b). *Exploring Westphalia's Blind Spots: Exceptionalism Meets the English School,* *Geopolitics,* 17:1.

Schouenborg, L., 2013. *The English School and Institutions: British Institutionalists? Guide to the English school in international studies.*

Schouenborg, L. 2014. *The English School and Institutions: British Institutionalists?* Oxford Research Encyclopaedia of International Studies. OUP.

Schouenborg, L., 2021. *The English School and Institutions: British Institutionalists?* Oxford Research Encyclopedia of International Studies. 19. Oxford University Press.

Schouenborg, L. and Taeuber, S. F., 2021. A quantitative approach to studying hierarchies of primary institutions in international society: The case of United Nations General Assembly disarmament resolutions, 1989–1998 *Cooperation and Conflict*, 56 (2).

Schroeder, P. W., 1994. *The transformation of European politics, 1763-1848*. Oxford University Press.

Schulte, P., 2007. Universal vision or bounded rationality? *International Affairs*, 83 (3)

Schwartz W.A., and Derber, C., 1990. *The nuclear seduction: why the arms race doesn't matter--and what does*. University of California Press.

Searle, J.R., 1995. *The construction of social reality*. Simon and Schuster.

Searle, J. R., 2018. *Constitutive Rules* published in *Argumenta* 4,1: 51-54 by University of Sassari.

Selezneva, D., 2022. *Russian–American Cooperation on NPT Extension: Lessons Learned*. In *Russian–American Nuclear Non-proliferation Dialogue: Lessons Learned and Road Ahead*. Singapore: Springer Nature Singapore.

Shea, T.E., 2021. *On creating the TPNW verification system*. In *The Nuclear Ban Treaty*. Routledge.

Shearer, A., 2000. Britain, France and the Saint-Malo declaration: Tactical rapprochement or strategic entente? *Cambridge Review of International Affairs*, 13 (2).

Shen, D., 2013. Revitalizing the Prague Agenda. *The Washington Quarterly*, 36 (2).

Sherif, Y. S., & Chang, T. H. (1984). System effectiveness criteria for the analysis of MX basing modes. *Microelectronics Reliability*, 24 (3).

Sherman, W.R., 2018. How we got the Iran deal: And why we'll miss it. *Foreign Affairs*.

Sherwin, M. J., 2002. *The atomic bomb and the origins of the Cold War*. In *Origins of the Cold War*. Routledge.

Shetty, S., 2015. The UK and the Nuclear Non-Proliferation Treaty (NPT) Review. *Conflict Resolution & Negotiation Journal*, 2015 (2).

Shils, E., 1947. The failure of the United Nations atomic energy commission: an interpretation. *University of Chicago Review*., 15.

Shimizu, K. (Ed.), 2019. *Critical International Relations Theories in East Asia: Relationality, Subjectivity, and Pragmatism* (1st ed.). Routledge.

- Shulong, C. and Xinzhu, L., 2008. The six-party talks: A Chinese perspective. *Asian Perspective*, 32 (4).
- Shultz, G. P., 2008. *Reykjavik Revisited: Steps Toward a World Free of Nuclear Weapons*, edited by Steven P. Andreasen, et al., Hoover Institution Press.
- Siegel, J., 2015. *Expanding Nuclear Weapons State Transparency to Strengthen Non-proliferation*. Center for International & Security Studies, University of Maryland.
- Simpson, G., 2004. *Great powers and outlaw states: unequal sovereigns in the international legal order (Vol. 32)*. Cambridge University Press.
- Simpson, J., 2007. The United Kingdom and the Nuclear Future: The Strength of Continuity and the Chance for Change the *Non-proliferation Review*, Vol.14, No.2, July 2007.
- Simpson, J. (Ed.), 1987. *Nuclear non-proliferation: an agenda for the 1990s*. Cambridge University Press.
- Simpson, J. and Nielsen, J., 2005. The 2005 NPT review conference: mission impossible. *Non-proliferation Review*, 12 (2).
- Singh, J., 1998. Against nuclear apartheid. *Foreign Affairs*, 77(5).
- Singh, M., 2018. *The International Order and Nuclear Negotiations with Iran (February 2018)*.
- Singh, S. and Kazi, R., 2023. *The Current State of Play in Nuclear Disarmament*. In *The Global Nuclear Landscape*. Routledge.
- Siracusa, J.M., 2015. *Nuclear Weapons: A Very Short Introduction*. Oxford University Press.
- Skidmore, D., 2012. The Obama Presidency and U.S. Foreign Policy: Where's the Multilateralism? *International Studies Perspectives*, 13 (1).
- Slusser R.M., 2019. *The Berlin Crisis of 1961: Soviet-American Relations and the Struggle for Power in the Kremlin, June-November 1961*. Johns Hopkins University Press.
- Smetana, M., 2018 (a). The Prague Agenda: An Obituary? *New Perspectives*, 26 (1).
- Smetana, M., 2018 (b). A nuclear posture review for the third nuclear age. *The Washington Quarterly*, 41 (3).
- Smetana, M., 2020. *Nuclear Deviance*. Springer International Publishing.
- Smetana, M., 2020. Chapter, *Nuclear Weapons and Peaceful Change in The Oxford Handbook of Peaceful Change in International Relations* ed. T.V. Paul, Welch Larson, Harold A. Trinkunas, Anders Wivel and Ralf Emmers, Oxford University Press
- Smetana, M., 2021. *Foundations of the Nuclear Order. Norms, Attitudes, and International Institutions*. Masaryk University.

Smith, D., 2010. Perspectives on the revival of the Nuclear Non-Proliferation Treaty regime in the wake of President Barack Obama's Prague speech. *Irish Studies in International Affairs*.

Smith, S., 2000. The discipline of international relations: still an American social science? *The British Journal of Politics & International Relations*, 2 (3).

Snow, C.P., 1966. Government, Science and Public Policy published in *Science*, Vol. 151, Issue 3711.

Snyder, J., 1993. *Atomic Diplomacy in the Korean War*. District of Columbia: Georgetown University. School of Foreign Service. Institute for the Study of Diplomacy.

Soderberg, N. and Costello, R., 2012. President Obama's Nuclear Legacy. *American Foreign Policy Interests*, 34 (3).

Sokolski, H.D. ed., 2004. *Getting MAD: nuclear mutual assured destruction, its origins and practice*. Strategic Studies Institute, U.S. Army War College.

Sossai, M., 2013. Disarmament and non-proliferation. In *Research Handbook on International Conflict and Security Law* (pp. 41-66). Edward Elgar Publishing.

Spandler, K., 2015. The political international society: Change in primary and secondary institutions *Review of International Studies* Cambridge University Press, 41(3).

Spandler, K., 2018. The Politics of Normative Arguing in Regional Organizations. In *Regional Organizations in International Society: ASEAN, the EU and the Politics of Normative Arguing* (pp. 15-50). Cham: Springer International Publishing.

Spandler, K., 2025. Rethinking democracy in global network governance: norm polysemy, pluralism, and agonistic engagement. *International Theory*, pp.1-30.

Spear, J., 2014. More Business as Usual? The Obama Administration and the Nuclear Posture Review. In *Reconceptualising Arms Control*. Routledge.

Spilman, A., Wheeler, N. J. and Brixey-Williams, S., 2019. *Common Security Through Nuclear Responsibilities*. BASIC.

Spruyt, H., 1994. *The Sovereign State and Its Competitors* published by Princeton University Press.

Stefanovich, D., 2023. *The Nuclear Five: State of Affairs and Prospects for Russian Chairmanship* published on Valdai web-site 30 August 2023.

Stein, A. A., 1983 *Coordination and Collaboration: Regimes in an Anarchic World in International Regimes*, edited by Stephen D. Krasner, 115-40. Ithaca, New York: Cornell University Press

Stein, A.A., 1990. *Why Nations Cooperate: Circumstance and Choice in International Relations* published by Cornell University Press

- Stephens, P., 2021. Britain Alone: The path from Suez to Brexit. Faber & Faber.
- Stinebrickner, B., 2015. Robert A. Dahl and the Essentials of Modern Political Analysis: Politics, Influence, Power, and Polyarchy. *Journal of Political Power* 8 (2).
- Stivachtis, Y.A., 2009. Beyond the Anarchical Society. *International Studies Review*. Vol. 11. Issue 3.
- Stocker, J., 2007. The United Kingdom and Nuclear Deterrence: Adelphi Paper: 386 IISS/Routledge
- Stocker, J., 2013. The United Kingdom and nuclear deterrence. Routledge.
- Stockholm International Peace Research Institute (SIPRI), 2020. Towards greater Nuclear Restraint: Raising the Threshold for Nuclear Weapon Use by Erasto,T., Topychkanov, P. (No. 2020/6)
- Stockholm International Peace Research Institute (SIPRI) The United Kingdom | SIPRI
- Stokke, O. S., 2001. The interplay of international regimes: Putting effectiveness theory to work. FNI report, 14, 2001.
- Strange, S., 1982. Cave! hic dragones: a critique of regime analysis. *International organization*, 36 (2).
- Street, T., 2024. The Future for UK Defence, Diplomacy and Disarmament. Nuclear Education Trust.
- Stuart, J., 2008. Exploring the relationship between outer space and world politics: English School and regime theory perspectives. London School of Economics and Political Science.
- Suganami, H., 1999. Agents, structures, narratives. *European Journal of International Relations*, 5 (3).
- Suganami, H., 2001. C.A.W. Manning and the study of International Relations published in *Review of International Studies*, 2001-01, Vol. 27 (1).
- Suganami, H., 2003. British institutionalists, or, the English School 20 years on. *International Relations*, 17 (3).
- Suganami, H., Carr, M. and Humphreys, A. eds., 2017. The Anarchical Society at 40: contemporary challenges and prospects. OUP.
- Sun, T., 1994. The Art of War. Hachette UK.
- Sutch, P. and Elias, J., 2007 *International Relations-The Basics* published by Routledge

- Tallis, B., 2018. The Prague Agenda. *New Perspectives*, 26 (1).
- Tannenwald N., 2007. *The nuclear taboo: the United States and the non-use of nuclear weapons since 1945*. Cambridge: Cambridge University Press.
- Tannenwald, N., 2013. Justice and Fairness in the Nuclear Non-proliferation Regime in *Ethics & International Affairs*. 27 (3).
- Tannenwald, N., 2018 (a). How Strong is the Nuclear Taboo Today? Published in the *Washington Quarterly*, 41:3.
- Tannenwald, N., 2018 (b). The Vanishing Nuclear Taboo? How Disarmament Fell Apart. *Foreign Affairs*, 97 (6).
- Tannenwald, N., 2019. It's Time for a U.S. No-First-Use Nuclear Policy Texas National Security Review: Volume 2, Issue 3 (May 2019).
- Tannenwald, N., 2020. Life beyond arms control: moving toward a global regime of nuclear restraint & responsibility. *Daedalus*, 149 (2).
- Taubman, P., 2012. *The Partnership: Five cold Warriors and their Quest to Ban the Bomb*. Harper Collins.
- Terradas, N., 2025. More than a catchphrase: rethinking Adam Watson's *raison de système* in international society. *International Politics*, 62(1).
- Terrill, R.E., 2011. An uneasy peace: Barack Obama's Nobel peace prize lecture. *Rhetoric and Public Affairs*, 14 (4).
- Tertrais, B., 2009. French Perspectives on Nuclear Weapons and Nuclear Disarmament in *Unblocking the Road to Zero*, (ed) Barry Blechman, The Stimson Center, February.
- Thakur, R., 2015. *Nuclear Weapons and International Security*. Routledge.
- Thakur, R. and Evans, G., 2013. *Nuclear weapons: the state of play*. Centre for Nuclear Non-Proliferation and Disarmament, Crawford School of Public Policy, The Australian National University.
- Thakur, R., Boulden, J. and Weiss, T.G., 2009. *The United Nations and Nuclear Orders*. United Nations University Press.
- Thies, W.J., 2007. Was the U.S. invasion of Iraq NATO's worst crisis ever? How would we know? Why should we care?. *European Security*, 16 (1).
- Thompson, E., 2018. *On Her Majesty's Nuclear Service*. Casemate.
- Thornton, C.L., 2002. The G8 global partnership against the spread of weapons and materials of mass destruction, *The Non-proliferation Review*, 9:3.
- Tobey, W., 2016. Peering down from the Summit: The Path to Nuclear Security 2010–2016 and beyond. *Global Summitry*, 2 (2), pp.93-113.

Toon, O.B., Bardeen, C.G., Robock, A., Xia, L., Kristensen, H., McKinzie, M., Peterson, R.J., Harrison, C.S., Lovenduski, N.S. and Turco, R.P., 2019. Rapidly expanding nuclear arsenals in Pakistan and India portend regional and global catastrophe. *Science Advances*, 5 (10)

Tooze, A., 2018. The forgotten history of the financial crisis: what the world should have learned in 2008. *Foreign Affairs*, 97(5).

Topychkanov, P., 2021. Taking Forward the Dialogue on Nuclear Risk Reduction. *Journal for Peace and Nuclear Disarmament*, 4 (sup1).

Toshihiko A., 2010. It Is Not Easy for the United States to Carry the Whole Load: Anglo-American Relations during the Berlin Crisis, 1961–1962, *Diplomatic History*, Volume 34, Issue 2, April 2010.

Trachtenberg, D.J., 2010. Assessing the NPR: A Closer Look. *Center for Defense Studies*, 20.

Trachtenberg, D. J., 2012. U.S. Extended Deterrence: How Much Strategic Force Is Too Little? *Strategic Studies Quarterly*, 6 (2).

Trachtenberg, M., 1985. The Influence of Nuclear Weapons in the Cuban Missile Crisis. *International Security*, 10 (1).

Trachtenberg, M., 2006. The problem of international order and how to think about it. *The Monist*, 89 (2).

Trenin, D., 2014. The Obama Administration's Policy toward Russia: a Moscow Perspective. *Kokusai Mondai (International Affairs)*, (630).

True, J., 2001. in Burchill, S., Linklater, A. et al *Theories of International Relations* (3rd Edition) Palgrave Macmillan.

Uekawa, K., 2024. P-5 Process and its Role in International Efforts Toward the Total Elimination of Nuclear Weapons. Master's Thesis Presented to the Faculty of Osaka Jogakuin University Graduate School of International Collaboration and Coexistence in the 21st Century.

Ulyanov, I., 2015. Assessing The Obama–Medvedev Reset in U.S.–Russia Relations. *E–International Relations*.

Unal, B., Cournoyer, J., Inverarity, C. and Afina, Y., 2022. Uncertainty and complexity in nuclear decision-making. RIIA, Chatham House.

United Nations General Assembly, Establishment of a Commission to Deal With the Problems Raised by the Discovery of Atomic Energy, A/RES/1(I), January 24, 1946.

United Nations Office for Disarmament Affairs, 2018. *Securing our Common Future: An Agenda for Disarmament*

United Nations Office for Disarmament Affairs: *The Nuclear Non-proliferation Treaty*

United Nations, 2015. Review Conference of the Parties to the Treaty on the Non-proliferation Treaty, National Report of the United Kingdom of Great Britain and Northern Ireland (NPT/Conf. 2015/29)

United Nations, 2020. Review Conference of the Parties to the Treaty on the Non-proliferation of Nuclear Weapons—National Report of the United Kingdom of Great Britain and Northern Ireland

United States Congressional Research Service, 2020. Russia's nuclear weapons: Doctrine, Forces and Modernization, published 20 July 2020.

United States Department for Defense, 2020. Military and Security Developments Concerning the People's Republic of China published 1 September 2020

United States Government, 2018. Nuclear Posture Review (Office of the Secretary of Defense)

United States Department of State, 2019. Free and Open Indo-Pacific published November 2019

Vakil, S. and Quilliam, N., 2019. Getting to a New Iran Deal. A guide for Trump, Washington, Teheran, Europe and the Middle East, The Royal Institute of International Affairs

Valasek, T., 2009. Obama, Russia and Europe. CER Policy Brief.

Vennesson, P., 2008. 12 Case studies and process tracing: theories and practices. *Approaches and methodologies in the social sciences*, 223.

Ventresca, M.J. and Mohr, J.W., 2017. Chapter: Archival Research Methods in The Blackwell Companion to Organizations (edited by Baum, J.A.C.) published by Blackwell Publishers.

Vincent, R.J., 1988. Hedley Bull and order in international politics. *Millennium*, 17 (2)

Vincent, R.J., 1990. The end of the Cold War and the international system. *Diplomacy and Statecraft*, 1 (3).

Vincent, R.J. (eds), 1990. *Order and Violence: Hedley Bull and International Relations*, published by Clarendon Press, Oxford

Volkan, V.D., 2001. Transgenerational transmissions and chosen traumas: An aspect of large-group identity. *Group Analysis*, 34(1).

Volkan, V.D., 2020. Chosen traumas and their impact on current political/societal conflicts. In *Social trauma—An interdisciplinary textbook*. Cham: Springer International Publishing.

von Laue, T.H.,1950. Ranke, The Formative Years, (translation of The Great Powers) Princeton University Press, p 203 (Cited in Bull, 1977: 195)

Wæver, O., 1992 (a). International society—Theoretical promises unfulfilled? in *Cooperation and Conflict*, 27 (1).

Wæver, O., 1992 (b). *International Society—Theoretical Promises Unfulfilled* published in *Cooperation and Conflict* vol. 27 (1). Sage, London.

Wæver, O., 1999. Does the English School's via media equal the Contemporary Constructivist Middle Ground, Manchester, BISA Conference Paper

Walker, J.R., 2016. British nuclear weapons and the test ban 1954-1973: Britain, the United States, weapons policies and nuclear testing: tensions and contradictions. Routledge.

Walker, J.R., 2023. *British Nuclear Weapons and the Test Ban: Squaring the Circle of Defence and Arms Control, 1974-82*. Routledge

Walker, W., 2000. Nuclear order and disorder. *International Affairs*, 76 (4). RIIA.

Walker, W., 2004. Weapons of Mass Destruction and the International Order Adelphi Paper: 370. Routledge.

Walker, W., 2006. *Weapons of Mass Destruction and International Order: Adelphi Paper 370*. IISS/Routledge.

Walker, W., 2006. *Weapons of Mass Destruction and International Order: Adelphi Paper 370*. IISS/Routledge.

Walker, W., 2007. Nuclear enlightenment and counter-enlightenment. *International Affairs*, 83 (3).

Walker, W., 2010. The UK, threshold status and responsible nuclear sovereignty. *International Affairs*, 86 (2).

Walker, W., 2011. *A Perpetual Menace: Nuclear weapons and international order*. Routledge.

Walker, W., 2020. On nuclear embeddedness and (ir) reversibility. Program on Science and Global Security.

Walker, W., 2025. Reflections on complexity, nuclear ordering and disordering over time. *Cambridge Review of International Affairs*.

Waltz, K., 1979. *Theory of International Politics*. McGraw Hill.

Waltz, K., 2001. *Man, the State and War: A Theoretical Analysis*. Columbia/

- Waltz, K.N., 1967. Foreign policy and democratic politics: The American and British experience. Little, Brown & Co, Boston
- Waltz, K. N., 1995. Policy Paper 15: Peace, Stability, and Nuclear Weapons, Institute on Global Conflict and Cooperation, Working Paper Series, Institute on Global Conflict and Cooperation, University of California.
- Waltz, K.N., 2000. Structural realism after the Cold War. *International security*, 25 (1).
- Waltz, K.N., 2015. The spread of nuclear weapons: More may be better. In *Conflict After the Cold War*. Routledge.
- Walzer, M., 2004. *Arguing about War*. Yale.
- Walzer, M., 2015. *Just and unjust wars: A moral argument with historical illustrations*. Hachette UK.
- Warburton, A.J., 2009. Understanding the bankruptcies of Chrysler and General Motors: a primer. *Syracuse L. Rev.*, 60.
- Warnke, P., 2016. Peaceful nuclear explosions: from the Limited Test-Ban Treaty to the Non-Proliferation Treaty, *Adelphi Series*, 56.
- Warren, A., 2011. The promises of Prague versus nuclear realities: From Bush to Obama. *Contemporary Security Policy*, 32 (2).
- Warren, A., 2013. *The Obama administration's nuclear weapon strategy: the promises of Prague*. Routledge.
- Watson, A., 1982. *Diplomacy: The Dialogue between States*, London: Methuen
- Watson, A., 1987. Hedley Bull, states systems and international societies. *Review of International Studies*, 13 (2).
- Watson, A., 2007. *Hegemony and History*. London: Routledge.
- Watson, A., Little, R. and Buzan, B., (2009). *The Evolution of International Society: a comparative historical analysis* reissue with a new introduction by Barry Buzan and Richard Little. Routledge.
- Weart, S. R., 1976. Scientists with a secret. *Physics Today*, 29 (2).
- Weart, S. R., 2012. *The rise of nuclear fear*. Harvard University Press.
- Weiss, L., 2010. India and the NPT, *Strategic Analysis*, 34:2.
- Wendt, A., 1987. The agent-structure problem in international relations theory. *International Organization*, 41 (3).
- Wendt, A., 1992. Anarchy is What States Make of It: The Social Construction of Power Politics. *International Organization* 46 (2).

- Wendt, A., 1995. Constructing International Politics published in *International Security*, Summer, 1995, Vol. 20. No. 1 (Summer, 1995).
- Wendt, A., 1999. *Social theory of international politics* (Vol. 67). Cambridge University Press.
- Wendt, A., 2001. Driving with the Rearview Mirror: On the rational science of Institutional Design published in *International Organization*, 2001, Vol. 55, (4).
- Wendt, A. and Friedheim, D., 1995. Hierarchy under anarchy: informal empire and the East German state, *International Organization*. Cambridge University Press, 49 (4).
- Wenger, A., 2004. Crisis and Opportunity: NATO's Transformation and the Multilateralization of Détente, 1966–1968. *Journal of Cold War Studies*, 6 (1).
- Wheeler, M.O., 2022. Track 1.5/2 security dialogues with China: Nuclear lessons learned. Institute for Defence Analyses.
- Wheeler, N., 1985. British nuclear weapons and Anglo-American relations 1945-54. *International Affairs* (Royal Institute of International Affairs 1944-), 62 (1).
- Wheeler, N.J., 1996. Guardian angel or global gangster: A review of the ethical claims of international society. *Political Studies*, 44 (1).
- Wheeler, N., & Booth, K., 2008. *The security dilemma: Fear, cooperation, and trust in world politics*. Palgrave Macmillan.
- Wheeler, N. and Clark, I., 1989. *The British Origins of Nuclear Strategy 1945-55*. Oxford University Press.
- Wheeler, N., & Dunne, T. 1996. Hedley Bull's Pluralism of the Intellect and Solidarism of the Will. *International Affairs*, 72 (1).
- Wheeler, N.J., 2002. *Saving Strangers: Humanitarian Intervention in International Society* published by Oxford University Press.
- Wight, M., 1973. *The Balance of Power and International Order* in Alan James (ed.), *The Bases of International Order: Essays in honour of C.A.W. Manning*, London. OUP.
- Wight, M., 1977. *Systems of States* published by Leicester University Press
- Wight, M., 1978. *Power Politics* (2nd Edition) edited by Hedley Bull and Carstaan Holbraad. Penguin.
- Wight, M., 1991. *International Theory: The Three Traditions* Leicester: Leicester University Press. (edited by Gabrielle Wight and Brian Porter).
- Wight, M., 2019 (b). Why is there no International Theory?(1966). In *International theory: Diplomatic Investigations*. OUP.

- Wight, M. and Butterfield, H., 2019. *Diplomatic investigations: Essays in the Theory of International Politics*. OUP.
- Wildavsky, A., 1994. Why Self-Interest Means less Outside of a Social Context, published in the *Journal of Theoretical Politics*, 6 (2).
- Williams R.H., and Feiveson H.A., 1990. Diversion-resistance criteria for future nuclear power. *Energy policy*, 18.
- Williams, H., 2020. What the Nuclear Ban Treaty Means for America's Allies published in *War on the Rocks*, 5 November 2020
- Williams, H., 2020. CEND and a Changing Global Nuclear Order. *European Leadership Network*, 18.
- Williams, H., 2021. *UK Nuclear Weapons: Beyond the Numbers* published by *War on the Rocks*
- Williams J., 2005 (a). Pluralism, Solidarism and the Emergence of World Society in English School Theory. *International Relations*. 2005;19(1).
- Williams, J., 2005 (b). *The Quick and the dead* published 16 June 2005 by Carnegie Endowment.
- Williams, J., 2006. *Order and society*. In *The Anarchical Society in a Globalized World* . London: Palgrave Macmillan UK.
- Williams, J., 2010. Territorial borders, international ethics and geography: do good fences still make good neighbours? *Geopolitics*, 8 (2).
- Williams, J., 2011. Structure, norms and normative theory in a re-defined English school: accepting Buzan's challenge, *Review of international studies.*, 37 (3).
- Williams, J., 2015 (a). *Ethics, Diversity and World Politics* published by Oxford University Press.
- Williams, J., 2015 (b). Pluralism, the English School and the Challenge of Normative Theory, chapter 14, in *System, Society and the World: Exploring the English School of International Relations (2nd Edition)* Murray, R.W. (eds.) published by E-International Relations Publishing
- Williams, P.D. and Bellamy, A.J., 2012. Principles, politics, and prudence: Libya, the responsibility to protect, and the use of military force. *Global Governance*, 18.
- Williamson, R. D., 2010. *Berlin & the Origins of Detente: multilateral & bilateral negotiations in the Berlin Crisis, 1958-1963*. Louisiana State University and Agricultural & Mechanical College.
- Wilson, L. C., 1965. International Law and the United States Cuban Quarantine of 1962. *Journal of Inter-American Studies*, 7 (4), 485–492.

Wilson, P., 2004. Manning's quasi-masterpiece: the nature of international society revisited. *The Round Table*, 93 (377).

Wilson, P., 2012. The English School meets the Chicago School: The Case for Grounded Theory in International Institutions *International Studies Review* 14 (4).

Wilson, P., & Yao, J., 2019. International sanctions as a primary institution of international society. In *International Organization in the Anarchical Society*. Palgrave Macmillan, Cham.

Wilson, P., and Yao, J., 2018. International sanctions as a primary institution of international society in international organization in the anarchical society: the institutional structure of world order. Cham: Palgrave Macmillan. Palgrave studies in international relations.

Wilson, W., 2008. The myth of nuclear deterrence. *Non-proliferation Review*, 15 (3).

Wilson, W., 2013. *Five Myths About Nuclear Weapons*. Houghton Mifflin Harcourt.

Wilson, W., 2023. *It is Possible*. The World School Press.

Wilton Park, 2018. Report: The nuclear non-proliferation regime towards the 2020 NPT Review Conference (WP 1633) published 2019 by Wilton Park (an executive agency of the UKFCDO).

Wilton Park, 2022. Report: Irreversibility in Nuclear Disarmament (WP2019)—March 2022 published by Wilton Park (an executive agency of the UK FCDO).

Windt Jr, T. O., 1971. The rhetoric of peaceful coexistence: Khrushchev in America, 1959. *Quarterly Journal of Speech*, 57(1), 11-22.

Winters, R., 2005. Preventing Repeat Offenders: North Korea's Withdrawal and the Need for Revision to the Nuclear Non-Proliferation Treaty. *Vand. J. Transnat'l L.*, 38.

Wittner, L.S., 1993. *Toward Nuclear Abolition: A History of the World Nuclear Disarmament Movement, 1971-Present* (Vol. 3). Stanford University Press.

Wohlstetter, A., 1964. IX. Nuclear Sharing: NATO and the N+ 1 Country. In *The Dispersion of Nuclear Weapons: Strategy and Politics*. Columbia University Press.

Wolfers, A., 1951. The Pole of Power and the Pole of Indifference. *World Politics* 4 (1).

Wolfsthal, J.B., 2022. The trillion-dollar nuclear triad. *JSTOR Security Studies Collection*.

Wrong, D. H. 1988. *Power: Its Forms, Bases, and Uses*. Chicago, IL: University of Chicago.

Xia, L., Robock, A., Scherrer, K. *et al.* (2022) Global food insecurity and famine from reduced crop, marine fishery and livestock production due to climate disruption from nuclear war soot injection. *Nat Food* 3, (2022).

Yermakov, A., 2020. Is France's Nuclear Shield Big Enough to Cover All of Europe? published 10 May 2020 in *Modern Diplomacy*.

- Yin, R. K., 2009. How to do better case studies. The SAGE handbook of applied social research methods, 2.
- Yin, T., 2011. Anything but Bush: The Obama Administration and Guantanamo Bay. Harvard/Polity, 34.
- Young, J. W., 1996. Winston Churchill's Last Campaign: Britain and the Cold War 1951–1955. OUP.
- Young, O.R., 1982. Regime dynamics: the rise and fall of international regimes. *International organization*, 36 (2)
- Yukl, G., 1989. Managerial Leadership: a review of theory and research. *Journal of Management*, Vol. 15 Issue 2.
- Zala, B., 2020. Regionalism and great power management in the Asia–Pacific: Complementary or competing forces? *Asian Studies Review*, 44 (1).
- Zhan, M., 2020. A Brief Overview of Alexander Wendt's Constructivism published on E-International Relations, 19 May 2020
- Zhang, J., 2010. Exploring rhetoric of public diplomacy in the mixed-motive situation: Using the case of President Obama's 'nuclear-free world' speech in Prague. *Place Branding and Public Diplomacy*, 6.
- Zhou, T., 2020. Nuclear Powers Must Lead on Arms Control, published by Carnegie Endowment, 11 March 2020
- Zimmerman, D., 1995. The Tizard Mission and the Development of the Atomic Bomb. *War in History*, 2 (3).
- Zimmern, A., 1936. *The League of Nations and the rule of law, 1918-1935*. London: Macmillan & Co.