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GOVERNING NUCLEAR AMBIGUITY AT HOME AND ABROAD: A CRITICAL ANALYSIS OF ISRAEL'S UNIQUE BARGAIN WITH THE BOMB

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Ali Diskaya
February 28, 2019

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ABSTRACT

In 1967 Israel secretly crossed the nuclear weapons threshold and became the Middle East's first and thus far only nuclear-armed state. Over the years, Israel's strategy of total nuclear secrecy evolved into a unique policy of 'nuclear ambiguity' (neither confirming nor denying the existence of nuclear weapons), providing the country with an existential nuclear deterrent, without making it (too) explicit, a position that could invite sanctions from the global nuclear nonproliferation regime or encourage a nuclear arms race in the Middle East. My thesis explores how Israel maintains its exceptional nuclear policy both at home and abroad.

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LIST OF ABBREVIATIONS

ACDA	Arms Control and Disarmament Agency (USA)
ADA	Atomic Development Agency
ANT	Actor-Network Theory
CAS	Comprehensive Safeguards Agreement
CIA	Central Intelligence Agency
HEU	Highly Enriched Uranium
IAEA	International Atomic Energy Agency
IAEC	Israel Atomic Energy Commission
ICAN	International Campaign to Abolish Nuclear Weapons
ICBM	Intercontinental Ballistic Missile
IDF	Israel Defense Forces
IDM	Israeli Disarmament Movement
IGO	International Governmental Organization
INGO	International Non-governmental Organization
IRR-1	Israel Research Reactor-1
IRR-2	Israel Research Reactor-2
JCPOA	Joint Comprehensive Plan of Action
LEU	Low Enriched Uranium
MALMAB	Memuneh Al Ha'Bitahon Be' Ma'arekhet Ha'Bitahon (Office of Security for the Israeli Defense Establishment)
NATO	North Atlantic Treaty Organization
NGO	Non-governmental Organization
NIE	National Intelligence Estimate
NNRC	Negev Nuclear Research Center
NNWS	Non-Nuclear Weapon State
NPT	Nuclear Non-Proliferation Treaty
NSAM	National Security Action Memorandum
NSC	National Security Council (USA)
NWFZ	Nuclear-Weapon-Free Zone

NWS	Nuclear-Weapon State
PTBT	Partial Test Ban Treaty
PUREX	Plutonium and Uranium Recovery by Extraction
RDD	Radiation Dispersion Device
SNIE	Special National Intelligence Estimate
SNRC	Soreq Nuclear Research Center
UN	United Nations
UNAEC	United Nations Atomic Energy Commission
UNODA	United Nations Office for Disarmament Affairs
UNSC	United Nations Security Council
USAEC	United States Atomic Energy Commission
USIB	United States Intelligence Board
VNWS	Virtual Nuclear Weapon State
WMD	Weapons of Mass Destruction
WMDFZ	Weapons of Mass Destruction-Free Zone

INTRODUCTION

In June 1967, on the eve of the Six-Day War with Egypt, Jordan, and Syria, Israel secretly crossed the nuclear weapons threshold and became the Middle East's first and thus far only nuclear-armed state.¹ Unlike previous nuclear proliferators, however, Israel did not advertise its possession of nuclear weapons by openly testing or publicly declaring them.² Indeed, even today the Israeli government refuses to say anything factual about its nuclear activities, and neither affirms nor denies the existence of a substantial nuclear arsenal.³ This policy is commonly referred to today as 'nuclear ambiguity' (in Hebrew, the phrase is *amimut*) and remains Israel's unique contribution to the nuclear age.⁴

Israel's nuclear ambiguity policy has three major components. The first is *secrecy*. There is little official evidence available about Israel's nuclear weapons program. Most of the relevant documents remain classified and Israeli government officials are prohibited from publicly discussing the nuclear issue. The second component is *signaling*. As Zeev Maoz explains, "through a series of leaks and veiled statements, the spread of rumors, and other political actions (e.g., refusal to sign the 1968 Nuclear Nonproliferation Treaty), Israel would bolster its nuclear image—an image comprising indirect evidence of an existing nuclear capability and hints of a deterrence

¹ Cohen, A. 'Crossing the Threshold: The Untold Nuclear Dimension of the 1967 Arab-Israeli War and Its Contemporary Lessons', *Arms Control Association*, 02 June 2007, np. Available at: https://www.armscontrol.org/act/2007_06/Cohen. Last accessed: January 11, 2019.

² Some analysts suspect that Israel, in collaboration with South Africa, conducted a secret nuclear weapon test in 1979. See Wright, C. M. & De Geer, L. 'The 22 September 1979 Vela Incident: The Detected Double-Flash', *Science & Global Security*, vol. 25, no. 3 (2017), pp. 95-124; and Weiss, L. 'Israel's 1979 Nuclear Test and the U.S. Cover-Up', *Middle East Policy*, vol. 18, no.4 (2011), pp. 83-95.

³ Experts estimate that Israel's current nuclear force ranges from 80 weapons at the low end to over 400 at the high end. See Kristensen, H. M. & Norris, R. S. 'Israeli nuclear weapons, 2014', *Bulletin of the Atomic Scientists*, vol. 70, no. 6 (2014), pp. 97-115; and Brower, K. S. 'A propensity for conflict: Potential scenarios and outcomes of war in the Middle East', *Jane's Intelligence Review*, special report no. 14 (February 1997), pp. 14-15.

⁴ The term 'nuclear ambiguity' was coined in 1973 by the Israeli academic Yair Evron. See his 'Israel and the Atom: The Uses and Misuses of Ambiguity', *Orbis*, vol. 17 (1973), pp. 1326-43.

doctrine”.⁵ The last component of Israel’s nuclear ambiguity policy is *non-acknowledgment*. Israeli officials would indirectly hint at the existence of a nuclear arsenal through signaling; yet, when asked directly if Israel possessed nukes, Israeli leaders would invoke the mantra that “Israel will not be the first country to introduce nuclear weapons into the Middle East”, which is tantamount to Israel neither confirming nor denying whether it possesses nuclear weapons.⁶

Israel’s policy of deliberate ambiguity is seen as a way of creating a nuclear deterrent, without making it (too) explicit, a position that could invite sanctions from the nuclear nonproliferation regime or encourage a nuclear arms race in the Middle East.⁷ As the Israeli military analyst Reuven Pedatzur put it:

The advantages of nuclear ambiguity were numerous. Deterrence was attained without any need to openly threaten the use of weapons whose existence Israel has never acknowledged; American and international sanctions, which would have been imposed had Israel openly declared the existence of nuclear arms or conducted nuclear tests, were sidestepped; Israel was seen around the world as being a responsible state, with level-headed leadership – this prevented the exertion of pressure on Israel to disarm, as is the case for Iran and North Korea.⁸

Over the last four decades, scholars have written a considerable number of articles and books on the origins and evolution of Israel’s nuclear ambiguity policy.⁹ Yet, while a great deal of work

⁵ Maoz, Z. ‘The Mixed Blessings of Israel’s Nuclear Policy’, *International Security*, vol. 28, no. 2 (2003), p. 47.

⁶ See Raz, A. ‘The Routinization of Nuclear Ambiguity’, *INSS Strategic Assessment*, vol. 18, no. 4 (January 2016), pp. 29-41.

⁷ See Cochran, E. S. ‘Deliberate Ambiguity: An Analysis of Israel’s Nuclear Strategy’, *Journal of Strategic Studies*, vol. 19, no. 3 (1996), pp. 321-42; and Raz, A. ‘The Value of Nuclear Ambiguity in the Face of a Nuclear Iran’, *INSS Strategic Assessment*, vol. 14, no. 3 (October 2011), pp. 19-32.

⁸ Pedatzur, R. ‘Nuclear Neighborhood Bully’, *Ha’aretz*, 14 October 2003. Available at: <https://www.haaretz.com/1.4719999>. Last accessed: April 13, 2018.

⁹ The most notable publications are: Aronson, S. *The Politics and Strategy of Nuclear Weapons in the Middle East: Opacity, Theory and Reality, 1960–1991: An Israeli Perspective* (Albany, NY: SUNY Press, 1992); Barnaby, F. *The Invisible Bomb: The Nuclear Arms Race in the Middle East* (London: I.B. Tauris & Co Ltd, 1989); Cohen, A. *Israel and the Bomb* (New York: Columbia University Press, 1998); Evron, Y. *Israel’s Nuclear Dilemma* (Ithaca, NY: Cornell University Press, 1994); Feldman, S. *Israeli Nuclear Deterrence: A Strategy for the 1980s* (New York: Columbia University Press, 1982); Hersh, S. M. *The Samson Option: Israel’s Nuclear Arsenal and American*

exists which analyzes how the Israeli government is upholding its exceptional nuclear policy at the regional and international levels, the domestic dimension of Israeli nuclear ambiguity has been almost completely ignored. Filling that gap is the main goal of this thesis.

Gaps in the Literature and Research Questions

Avner Cohen's seminal book *The Worst-Kept Secret: Israel's Bargain with the Bomb* remains the *only* study that explores the domestic dimension of Israel's nuclear ambiguity policy. In this book, Cohen analyzes nuclear ambiguity not only as an issue of regional and international relations, but also examines its impact on Israeli democracy, government accountability, decision-making processes, and freedom of speech. In a section titled 'The Infrastructure of Amimut', Cohen discusses the workings of the three-layered institutional framework that is creating and guarding Israel's nuclear secrets. At the core of this framework is the Israel Atomic Energy Commission (IAEC), the institution that has overall responsibility for Israel's nuclear affairs. It is here where most of Israel's atomic secrets are created. This core is wrapped in a second layer, the Office of Security for the Israeli Defense Establishment (or MALMAB, in its Hebrew acronym), which is responsible for guarding Israel's nuclear secrets and preserving nuclear ambiguity. Equivalents of the IAEC and the MALMAB can be found in every nuclear-armed democracy. What makes Israel's nuclear bureaucracy truly unique is the third and final protective layer, the Office of the Military Censor, a military censorship institution commonly known in Israel as the 'Censora'. The main task of the Censora is to enforce a law which prohibits Israeli publications to refer directly to the nation's nuclear weapons (publications may refer to them only by quoting 'foreign sources')

Foreign Policy (New York: Random House, 1991); and Karpin, M. *The Bomb in the Basement: How Israel Went Nuclear and What That Means for the World* (New York: Simon & Schuster, 2007).

by banning any material that fails to conform to this requirement. The Censora's legal authority and scope are almost limitless. As Cohen explains:

Virtually any media item about Israel's defense and foreign affairs is required to be submitted to the Censora for prepublication review, not only the print and electronic media (including foreign media based in Israel) but also any books (even fiction), professional newsletters, and even postings on the Internet... Israel's nuclear issue remains the most highly scrutinized subject of all.¹⁰

However, Cohen argues that the Censora does not have to make use of its amazing legal powers because the majority of Israelis has no interest in public discussion of the 'nuclear issue' (Israel's nuclear weapons program and policies). Within Israel, Cohen contends, the nuclear issue has evolved into an all-encompassing societal taboo that has been adopted and perpetuated by the Israeli public of its own free will. The Israeli bomb, Cohen argues, is Israel's 'last taboo'.¹¹

But how was it possible that in such a deeply securitized society, where virtually everything related to national security is endlessly discussed in public, the nuclear issue remains the *only* topic that is not being discussed at all? Was there really something like a 'nuclear taboo' in Israel? And if so, was it a self-imposed taboo, as Cohen claimed, or rather the result of top-down censorship? My own research on the topic, which was spurred and guided by these questions, has surprisingly revealed that there is no taboo in Israel that works to repress public discourse on the nuclear issue. To the contrary, I have discovered that since the mid-1970s there has been a continuous discursive growth on the nuclear topic in Israel, with a veritable discursive explosion in the last twenty years. However, my research has also revealed that the process of transforming the Israeli bomb into

¹⁰ Cohen, A. *The Worst-Kept Secret: Israel's Bargain with the Bomb* (New York: Columbia University Press, 2010), p. 113.

¹¹ Cohen, A. 'The Last Taboo', *Ha'aretz*, 23 April 2004. Available at: <https://www.haaretz.com/1.4786941>. Last accessed: February 28, 2018.

public discourse was closely monitored by Israel's nuclear bureaucracy (IAEC, MALMAB, Censora) and regulated in such a way as to fashion a national nuclear discourse that is in line with the country's official ambiguity policy. One of the main aims of this thesis is to explore how this is being done through the case study of the Israeli media. Drawing on recently conducted interviews with Israeli journalists, I show that the Israeli government is fashioning and upholding the desired national nuclear discourse through a range of 'governmental technologies' through which it seeks to coopt the Israeli media and 'responsibilize' journalists. I show how these techniques of responsabilization emerged from, and interact with 'counter-conduct', that is, forms of resistance by journalists who do not seek a radical break with the official censorship regime, but instead try to subvert or challenge the regime from within with the means made available to them by it.

Another major gap in the literature on the domestic dimension of nuclear ambiguity is that no study has explored the antinuclear weapons campaign of the Israeli Disarmament Movement (IDM), Israel's first ever grassroots antinuclear movement. This is important because unlike in other nuclear-armed democracies, such as the United States, the United Kingdom, and France, the overwhelming majority of Israelis supports the fact that their country possesses nukes. From the mid-1980s until the early 2000s, Tel Aviv University's Jaffe Center for Strategic Studies (JCSS, now the Institute for National Security Studies) has surveyed Israeli public attitudes about Israel's nuclear weapons program and policies. Two of the questions asked concerned (1) whether or not Israel should develop nukes, and (2) whether or not such weapons should be kept opaque. In a 1987 survey, 78 percent of a representative sample of Israeli Jews supported the proposition that Israel should develop nuclear weapons; this number rose to 92 percent in 1998. Regarding the

second question, 78 percent of respondents in the 1987 survey supported Israel's policy of nuclear ambiguity.¹² In a 2003 survey, this number slightly dropped to 72 percent, while 21 percent favored revealing the existence of Israel's nuclear weapons (i.e., adopting a policy of explicit nuclear deterrence), and only 5 percent favored giving them up.¹³ In a 2007 poll, 72 percent of Israelis agreed that "nuclear weapons place Israel in a unique position, so it is not in our interest to participate in treaties that would reduce or eliminate our purported nuclear arsenal".¹⁴ Under those tough conditions, the IDM is striving to change the attitude of the Israeli society towards nuclear issues and to promote the idea of a global nuclear weapons ban and a Weapons of Mass Destruction-Free Zone (WMDFZ) in the Middle East. Drawing on an interview with Sharon Dolev, the founder and director of the IDM, I examine how the IDM's campaign against the Israeli bomb is rationalized and problematized and which practices, techniques, and technologies the IDM employs to mobilize a public around the issue of nuclear disarmament and how this is being resisted by the Israeli society.

However, as the title of my dissertation suggests, I am not only examining the domestic dimension of nuclear ambiguity but I also explore how the Israeli government is upholding its exceptional nuclear policy at the international level. In the fall of 1986, Israel's policy of nuclear ambiguity faced its most severe challenge when Mordechai Vanunu, a former junior technician at the Dimona nuclear complex, told the London *Sunday Times* all he knew about Israel's nuclear secrets. The general view within the literature is that, as Avner Cohen and Marvin Miller put it, "Vanunu's

¹² Arian, A. 'Public Opinion and Nuclear Weapons', *INSS Strategic Assessment*, vol. 1, no. 3 (1998), pp. 8-9.

¹³ Arian, A. 'Israeli Public Opinion on National Security 2003', Memorandum No. 67 (Tel Aviv: Jaffee Center for Strategic Studies, Tel Aviv University, 2003), p. 16.

¹⁴ 'Poll: Most Israelis support using nukes', *The Jerusalem Post*, 10 January 2007. Available at: <http://www.jpost.com/Israel/Poll-Most-Israelis-support-using-nukes>. Last accessed: February 13, 2017. This is, to the best of my knowledge, the most recent survey on Israeli public attitudes on the nuclear issue.

revelations have changed everything”. “[I]t is no longer logically possible”, Cohen and Miller argue, “to maintain that Israel does not have nuclear weapons”. “For this reason”, they contend, “the entire discourse of ambiguity... has become obsolete”.¹⁵ Drawing on an interview with Vanunu as well as recently published analyses by Israeli military analysts, I challenge this view and put forth an alternative interpretation of the Vanunu Affair. I argue that Vanunu not only failed to resolve the ambiguity of Israel’s nuclear weapons program, but quite ironically has also helped strengthen certain aspects of Israel’s nuclear ambiguity policy (i.e., signaling).

Structure of the Thesis

The thesis is organized in five chapters as follows: the first chapter builds the analytical framework of the thesis through the synthesis of Michel Foucault’s work on power and resistance (especially his later work on ‘governmentality’, ‘counter-conduct’, and ‘*parrhēsia*’) and Actor-Network Theory (ANT). The chapter describes these theories and concepts and discusses how they are applied within this study.

The second chapter examines the workings of the global nuclear nonproliferation regime from the Actor-Network perspective developed in chapter one. The chapter is divided into two parts. Part one explores the origins and evolution of the NPT regime, with a particular focus on the ‘interessement devices’ through which the United States and its allies managed to enroll 191 states into the regime. Part two examines why and how different (human and non-human) actors have resisted being integrated into the nonproliferation regime and how the regime-builders have reacted to these resistances.

¹⁵ Cohen, A. & Miller, M. ‘Facing the Unavoidable: Israel’s Nuclear Monopoly Revisited’, *Journal of Strategic Studies*, vol. 13, no. 3 (1990), p. 64 & 65.

Following that, chapter three examines why and how Israel resisted being integrated into the global nuclear nonproliferation regime. The chapter is divided into three main parts. Parts one and two analyze why Israel decided to build nuclear weapons and how it has managed to do so. Part three examines why Israel adopted an ambiguous nuclear policy and discusses the value of such a policy vis-à-vis conventional nuclear deterrence.

Chapter four explores why and how the Israeli government seeks to regulate the national Israeli discourse on nuclear matters in a way that is in line with the country's official nuclear ambiguity policy and how this is resisted by a small group of Israeli journalists. To address these questions, the paper employs an ethnographic approach, which is theoretically informed by Foucault's conceptualization of governmentality as distinct analytical perspective on questions of power and governance.

Chapter five analyzes two rare cases of resistance against the Israeli bomb and the ambiguity policy that is guarding it. The first part of the chapter examines the case of Mordechai Vanunu, a former Dimona worker who in 1986 revealed details of Israel's nuclear weapons program to the London *Sunday Times*. Why did Vanunu decide to blow the whistle on Israel's nuclear secrets? How did he make the Israeli bomb public? What were the effects of his revelations in Israel and abroad? How did his revelations affect Israel's nuclear ambiguity policy? And what did it cost Vanunu to tell the truth about Israel's nuclear program? To address these questions, the chapter draws on an interview with Vanunu and Foucault's analytic of '*parrhēsia*'. The second part of the chapter examines the case of the Israeli Disarmament Movement (IDM), Israel's first grassroots

antinuclear movement, and the tactics they use to modulate public concern over the Israeli bomb and its accompanying infrastructure.

CHAPTER 1: ANALYTICAL FRAMEWORK

1.1 The Case for Analytic Eclecticism

This dissertation is divided into five chapters: the present theoretical chapter and four empirical chapters. Each of the empirical chapters deals with a different set of questions. No social science theory, let alone International Relations (IR) theory, in itself is sufficient to address these questions adequately. For this reason, I have adopted an eclectic research approach. Basically, an eclectic study extricates, translates, and selectively recombines analytic components from different theories to analyze substantive research problems in original and creative ways.¹⁶ As Peter Katzenstein and Rudra Sill explain:

What we refer to as analytic eclecticism is distinguished by the fact that features of analyses in theories initially embedded in separate research traditions can be separated from their respective foundations, translated meaningfully, and recombined as part of an original permutation of concepts, methods, analytics, and empirics.¹⁷

“The emergent theoretical framework, whatever its limitations with regard to such scientific ideals as parsimony and replicability, comes to constitute a tool for problem-solving rather than an instrument for truth production”.¹⁸ This does not mean, however, that anything goes. In a recent article, Jérémie Cornut argues that the potential contributions of different theories and the criteria for their selection need to be clarified in advance. Two main lines of clarification, Cornut argues, are particularly necessary. First, “*outside* the combination, it should be explicitly clear why certain

¹⁶ I do not have the space here to discuss this approach in great detail. For an in-depth discussion of analytic eclecticism in IR, see Katzenstein, P. & Sil, R. *Beyond Paradigms: Analytic Eclecticism in the Study of World Politics* (New York: Palgrave Macmillan, 2010). Analytic eclecticism is not new to IR. It has been practiced on the margins of the field for decades; but has been overshadowed by the Great Debates. See Lake, D. A. ‘Theory is dead, long live theory: The end of the Great Debates and the rise of eclecticism in International Relations’, *European Journal of International Relations*, vol. 19, no. 3 (2013), pp. 567-87.

¹⁷ Katzenstein, P. & Sil, R. ‘Eclectic Theorizing in the Study and Practice of International Relations’, in Reus-Smit, C. & Snidal, D. (eds.), *The Oxford Handbook of International Relations* (Oxford: Oxford University Press, 2008), pp. 110-11.

¹⁸ *Ibid.*, p. 117.

theories or approaches are used in a problem-driven analysis while others are excluded”. “Without such justification”, Cornut warns, “the choices regarding theoretical approaches could be seen as arbitrary at best or a hegemonic, exclusivist, or assimilationist project at worst”.¹⁹ Second, “the contribution of each theory or approach must be clarified *within* the combination. The explanations provided by different theories may often be seen as contradictory to each other. Since problem-driven pragmatism uses different theories in one analysis, the threat of incoherence always looms large. It is vital that pragmatic scholarship emphasizes the ways in which various analyses might explain a phenomenon in conjunction with one another. Without such efforts, pragmatists could reasonably be accused of supporting juxtaposition or pluralism ‘for its own sake’”.²⁰

In the following, I describe the theories that I have chosen and discuss why they were chosen and how they are applied within this study.

1.2 Power: Actor-Network Theory and Governmentality Theory

In chapter two, I examine how the United States and its allies managed to enroll 191 states into the global nuclear nonproliferation regime and how they maintain the regime (i.e. how they prevent states from breaking-out and leaving the regime). In chapter four, I analyze why and how the Israeli government seeks to govern Israel’s national nuclear discourse in a way that is in line with the country’s official nuclear ambiguity policy. To address these questions, I draw on Actor-Network Theory (ANT) and governmentality theory. In the following, I describe these theories and discuss their use in my study.

¹⁹ Cornut, J. ‘Analytic Eclecticism in Practice: A Method for Combining International Relations Theories’, *International Studies Perspectives*, vol. 16, no. 1 (2015), p. 53 (emphasis in original).

²⁰ *Ibid*, pp. 53-54 (emphasis in original).

1.2.1 Actor-Network Theory

ANT, also known as the ‘sociology of translation’²¹ or ‘material semiotics’,²² emerged during the 1980s, primarily with the work of Michel Callon, Bruno Latour, and John Law.²³ In 1981, Callon and Latour provided one of the earliest formulations of ANT in a paper entitled ‘Unscrewing the big Leviathan: how actors macro-structure reality and how sociologists help them to do so’.²⁴ In this paper, Callon and Latour try to provide an answer to the following question: how do micro-actors (individuals, groups, families) become macro-actors (institutions, organizations, social classes, parties, states)? However, before answering this question, let us first discuss what ANT scholars mean when they talk about actors. In ANT, the term ‘actor’ “does not refer to an individual agent, but rather an entity whose existence depends upon their network of alliances within a shifting, heterogeneous and expansive relational field”.²⁵ As Law put it, an actor is also, always, “a patterned network of heterogeneous relations, or an effect produced by such a network”.²⁶ Hence, the hyphen in the term ‘actor-network’.

²¹ Latour, B. ‘On Recalling ANT’, *The Sociological Review*, vol. 47, no. 1 (1999), pp. 15-25.

²² Law, J. ‘Actor Network Theory and Material Semiotics’, in Turner, B. S. (ed.), *The Blackwell Companion to Social Theory* (Oxford: Blackwell, 2009), pp. 141-58.

²³ For a thorough introduction to ANT, see Latour, B. *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2005). For a brief overview, see Mol, A. ‘Actor-Network Theory: Sensitive Terms and Enduring Tensions’, *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, vol. 50, no. 1 (2011), pp. 253-69.

²⁴ To be sure, Callon and Latour did not explicitly use the term actor-network in this paper. The earliest use of the term that I could find in English is Callon, M. ‘The Sociology of an Actor-Network: The Case of the Electric Vehicle’, in Callon, M., Law, J., & Rip, A. (eds.), *Mapping the Dynamics of Science and Technology: Sociology of Science in the Real World* (Houndmills: Macmillan, 1986), pp. 19-34.

²⁵ Barry, A. ‘The Translation Zone: Between Actor-Network Theory and International Relations’, *Millennium: Journal of International Studies*, vol. 41, no. 3 (2013), p. 414.

²⁶ Law, J. ‘Notes on the Theory of the Actor-Network: Ordering, Strategy, and Heterogeneity’, *Systems Practice*, vol. 5, no. 4 (1992), p. 384.

Let us now return to Callon and Latour's question: how does a micro-actor become a macro-actor—"how, in other words, are size, power, and organization generated?"²⁷ According to Callon and Latour, this happens through processes of 'translation':

by translation we understand all the negotiations, intrigues, calculations, acts of persuasion and violence, thanks to which an actor or force takes, or causes to be conferred on itself, authority to speak or act on behalf of another actor or force: 'Our interests are the same', 'do what I want', 'you cannot succeed without going through me'. Whenever an actor speaks of 'us', s/he is translating other actors into a single will, of which s/he becomes spirit and spokesman. S/he begins to act for several, no longer for one alone. S/he becomes stronger. S/he grows.²⁸

In his 1984 study of the scallops and fishermen of St. Briec Bay, Callon further developed the ANT understanding of translation. In this study, Callon distinguishes between two key moments of translation: (1) 'problematization' and (2) 'interessement'. Callon examines in great detail how three marine biologists tried to solve the problem of declining scallop stocks in St. Briec Bay in Brittany, on the English Channel coast. In a number of articles, reports, and conference presentations, the researchers argued that the decline of the scallop population was caused by overfishing and marine predators like the starfish. The researchers suggested that the level of existing stock could be increased through a technique they had discovered during a voyage to Japan. Callon describes the technique as follows: "the [scallop] larvae are anchored to collectors immersed in the sea where they are sheltered from predators as they grow. When the shellfish attain a large enough size, they are 'sown' along the ocean bed where they can safely develop for two or three years before being harvested".²⁹

²⁷ Ibid.

²⁸ Callon, M. & Latour, B. 'Unscrewing the big Leviathan: how actors macro-structure reality and how sociologists help them to do so', in Knorr-Cetina, K. & Cicourel, A. V. (eds.), *Advances in social theory and methodology: Towards an integration of micro- and macro-sociologies* (London: Routledge & Keagan Paul, 1981), p. 279.

²⁹ Callon, M. 'Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Briec Bay', *The Sociological Review*, vol. 32, no. 1 (1984), p. 202.

However, there was one major problem. The scallop species at St. Brieuc Bay (*Pecten maximus*) was different from the species raised in Japanese waters (*Pecten patinopecten yessoensis*). During their research trip to Japan, the marine biologists had seen with their own eyes that the *Pecten patinopecten yessoensis* larvae anchor themselves to collectors and grow undisturbed while sheltered from predators. However, they were unsure whether this experience was transposable to St. Brieuc Bay. Thus, the aquaculture of the scallops at St. Brieuc Bay raised a problem. No answer could be given to the following crucial question: “does *Pecten maximus* anchor itself during the first moments of its existence?”³⁰ However, Callon observes that the three marine biologists did not limit themselves to the simple formulation of the above question. In their written reports, the researchers identified a whole series of actors that were involved in the above question (the scallops (*Pecten maximus*), the fishermen of St. Brieuc Bay, and the scientific colleagues) and determined their identities in such a way as to establish themselves as an ‘obligatory passage point’ in the network of relationships they were building:

The argument which they develop in their paper is constantly repeated: if the scallops want to survive (no matter what mechanisms explain this impulse), if their scientific colleagues hope to advance knowledge on this subject (whatever their motivations may be), if the fishermen hope to preserve their long term economic interests (whatever their reasons) then they must: 1) know the answer to the question: how do scallops anchor?, and 2) recognize that their alliance around this question can benefit each of them.³¹

This double movement (determining a set of actors and defining their identities in such a way as to establish oneself as an ‘obligatory passage point’ (or ‘making oneself indispensable’) in the proposed network), is what Callon calls ‘problematization’.

³⁰ Ibid.

³¹ Ibid., pp. 205-06.

The next phase of translation is the construction and deployment of ‘interessement devices’. The term refers to “political technologies that make other actors accept its problematization and the network goals and projects associated with it and that enable it to enroll them as allies in its network”.³² In Callon’s case study, the interessement devices of the three marine biologists take the form of texts and conversations which “lure the concerned actors to follow the three researchers’ project”.³³ As Callon explains:

The three researchers multiply their meetings and debates in order to explain to the fishermen the reasons behind the extinction of the scallops. The researchers draw up and comment upon curves which ‘indisputably’ show the incredible decline of the stock of scallops in St. Brieuc Bay. They also emphatically present the ‘spectacular’ results of the Japanese. The scientific colleagues are solicited during conferences and through publications. The argumentation is always the same: an exhaustive review of the literature shows that nothing is known about scallops. This lack of knowledge is regrettable because the survival of a species which has increasing economic importance is at stake (in France at least).³⁴

Indeed, the fishermen, who were initially very skeptical, agreed to support the project of restocking the Bay. A protected area was established where the *Pecten maximus* larvae could anchor themselves to collectors and grow undisturbed while being sheltered from predators as well as the fishermen, who were prohibited from fishing in the areas designed for scallop breeding.

Thus, the success of translations depends on two conditions: (1) can actors come up with problematizations that frame their interests in a manner that resonates with prospective network members; and (2) can they come up with interessement devices that persuade prospective members to enroll in the network. However, the success of translations depends not only on the ability of

³² Merlingen, M. ‘From Governance to Governmentality in CSDP: Towards a Foucauldian Research Agenda’, *Journal of Common Market Studies*, vol. 49, no. 1 (2011), p. 155.

³³ Callon, ‘Some elements of a sociology of translation’, p. 211.

³⁴ *Ibid.*, pp. 210-11.

network-builders to persuade prospective members to enroll in the network, but also (or primarily) to convince them to remain in the network. As John Law put it:

Elements in the network prove difficult to tame or difficult to hold in place. Vigilance and surveillance have to be maintained, or else the elements will fall out of line and the network will start to crumble. The network approach stresses this by noting that there is almost always some degree of divergence between what the elements of a network would do if left to their own devices and what they are obliged, encouraged, or forced to do when they are enrolled within the network.³⁵

Thus, ANT scholars are interested in both: how networks are brought about and how they are sustained in real time.³⁶ In chapter two, I use the ANT framework to analyze how the United States and its allies managed to enroll 191 states into the global nuclear nonproliferation regime and how they maintain the regime (i.e. how they prevent states from breaking-out and leaving the regime).³⁷

1.2.2 Governmentality Theory

Foucault first introduced the notion of “governmentality” (*gouvernementalité*) in his now famous lecture series *Security, Territory, Population* at the Collège de France in 1978.³⁸ In its broadest sense, governmentality is a heading for a project that examines the exercise of power in terms of the “conduct of conduct” (*conduire des conduits*),³⁹ that is to say:

any more or less calculated and rational activity, undertaken by a multiplicity of authorities and agencies, employing a variety of techniques and forms of knowledge, that seeks to shape conduct by

³⁵ Law, J. ‘Technology and Heterogenous Engineering: The Case of Portuguese Expansion’, in Bijker, W. E., Hughes, T. P. & Pinch, T. J. (eds.), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge, Mass.: MIT Press, 1993 [1987]), p. 114.

³⁶ See Bueger, C. ‘Actor-Network Theory, Methodology, and International Organization’, *International Political Sociology*, vol. 7, no. 3 (2013), pp. 338-42.

³⁷ For a brief overview of ANT-inspired work in IR, see Bueger, C. & Stockbruegger, J. ‘Actor-Network Theory: Objects and actants, networks and narratives’, in McCarthy, D. R. (ed.), *Technology and World Politics: An Introduction* (Abingdon, OX: Routledge, 2018), pp. 42-59.

³⁸ In lecture eight on 01 February 1978, to be more precise. See Foucault, M. *Security, Territory, Population: Lectures at the Collège de France, 1977-1978* (Basingstoke: Palgrave-Macmillan, 2007), p. 108.

³⁹ Foucault, M. *Dits et écrits IV* (Paris: Galimard, 1994), p. 237. This term is not translated in this way in English versions of Foucault’s work.

working through the desires, aspirations, interests and beliefs of various actors, for definite but shifting ends and with a diverse set of relatively unpredictable consequences, effects and outcomes.⁴⁰

Understood in this way, governmentality refers to a distinctively modern form of power, which breaks with Foucault's earlier conceptualizations of power. As Helle Malmvig explains, "In contrast to Foucault's two other modes of power—that of sovereignty and of discipline, which rule through law and imposition, producing mere docile bodies to be corrected and disciplined—governmentality rules through, and produces subjects as, free and responsible agents".⁴¹ Governmentality as a distinctively modern form of power "seeks to regulate and steer the actions of specific target groups toward certain goals, yet does so through ideas of responsible and consenting subjectivities. Governmentality in this sense works as a self-limiting form of power, which is ever conscious of the counter-productive effects of imposition, and is therefore ever in pursuit of the involvement, co-ownership, and willingness of those it seeks to rule".⁴²

Indeed, this conception of how power operates in modern societies goes to the heart of how the Israeli government regulates the national Israeli nuclear discourse in a way that is in line with the country's official nuclear ambiguity policy. In chapter four I show that rather than trying to impose a particular way of writing about the nuclear issue from above, Israeli elites in charge of the country's nuclear program seek to regulate and steer the actions of Israeli journalists through ideas of responsible and consenting subjectivities.

⁴⁰ Dean, M. *Governmentality: Power and Rule in Modern Society*, 2nd ed. (London: SAGE Publications, 2010), p. 18.

⁴¹ Malmvig, H. 'Free Us from Power: Governmentality, Counter-conduct, and Simulation in European Democracy and Reform Promotion in the Arab World', *International Political Sociology*, vol. 8, no. 3 (2014), p. 295.

⁴² Ibid.

The exercise of governmental power is analyzed in terms of ‘political rationalities’ and ‘governmental technologies’. The term political rationality refers to

the changing discursive fields within which the exercise of power is conceptualized, the moral justifications for particular ways of exercising power by diverse authorities, notions of the appropriate forms, objects and limits of politics, and conceptions of the proper distribution of such tasks among secular, spiritual, military and familial sectors.⁴³

The term ‘governmental technologies’ refers to “the complex of mundane programs, calculations, techniques, apparatuses, documents and procedures through which authorities seek to embody and give effect to governmental ambitions”.⁴⁴ “Through an analysis of the intricate inter-dependencies between political rationalities and governmental technologies”, Nikolas Rose and Peter Miller argue, “we can begin to understand the multiple and delicate networks that connect the lives of individuals, groups and organizations to the aspirations of authorities in the advanced liberal democracies of the present”.⁴⁵

It is important to note, however, that governmentality is not exclusive of other types of power such as sovereign and disciplinary forms of power, but rather intimately tied to them. As Foucault put it, “we should not see things as the replacement of a society of sovereignty by a society of discipline, and then of a society of discipline by a society, say, of government. In fact, we have a triangle: sovereignty, discipline, and governmental management”.⁴⁶ Hence, instead of presupposing that governmentality can only be deployed in contexts characterized by absence of sovereignty and discipline, Foucault’s governmentality framework offers opportunities to explore

⁴³ Rose, N. & Miller, P. ‘Political Power beyond the State: Problematics of Government’, *The British Journal of Sociology*, vol. 43, no. 2 (1992), p. 175.

⁴⁴ Ibid.

⁴⁵ Ibid., pp. 175-76.

⁴⁶ Foucault, *Security, Territory, Population*, p. 107.

how power works through practices of freedom as well as violence and coercion, and how these are combined and reciprocated in varying degrees in societies and political relations across the globe.⁴⁷ In this context, it is important to note that my decision to focus analytically on governmentality does not mean that I deny the importance of other forms of power with regard to how the Israeli state governs the national nuclear discourse, but rather I argue that we cannot fully understand how this is being done unless we pay close attention to governmental power.

1.3 Resistance: Untranslatables, Counter-conduct, and *Parrhēsia*

Chapters three, four, and five explore different forms of resistance. In chapter three, I examine why and how Israel resisted being integrated into the global nuclear nonproliferation regime. In chapter four, I analyze how Israeli journalists resist the Israeli censorship regime. In chapter five, I examine two rare cases (Vanunu and the IDM) of resistance against the Israeli bomb and the ambiguity policy that is guarding it. To address these questions, I draw on three different analytical tools: (1) untranslatables, (2) counter-conduct, and (3) *parrhēsia*. In the following, I describe these concepts and discuss their use in my study.

1.3.1 Untranslatables

Interessement achieves enrolment if it is successful and completes the process of translation. Yet, as Callon reminds us, actors enlisted by the problematizations of network-builders and targeted by their interessement devices “can submit to being integrated into the initial plan, or inversely, refuse

⁴⁷ Death, C. ‘Governmentality at the limits of the international: African politics and Foucauldian theory’, *Review of International Studies*, vol. 39, no. 3 (2013), p. 768.

the transaction by defining its identity, its goals, projects, orientations, motivations or interests in another manner”.⁴⁸ The scallops of St. Brieuc Bay, for example, resisted being integrated into the marine biologists’ restocking project. They refused to use and anchor themselves to the collectors that had been designed for them by the researchers. Part of the failure to attract the scallops was that the collectors could not withstand the currents in St. Brieuc Bay. Thus, the ANT approach developed by Callon insists that notions of agency are not confined to human subjects, but embrace objects, machines, materials, animals and other non-human entities that both enable and constrain human activity, including attempts at translation.

However, the fishermen of St. Brieuc Bay also undermined the restocking project when they began fishing in areas protected for scallop breeding. As Callon put it:

The scallops [in the protected areas] ...were shamelessly fished, one Christmas Eve, by a horde of fishermen who could no longer resist the temptation of a miraculous catch. Brutally, and without a word, they disavowed their... long term [commitment]. They preferred, as in the famous aphorism of Lord Keynes, to satisfy their immediate desires rather than a hypothetical future reward.⁴⁹

Thus, translation is an inherently contentious and uncertain process as it depends “upon the agency of human and non-human others, an agency which is often truculent, recalcitrant, crafty, and self-interested”.⁵⁰ I refer to actors (human and nonhuman) that successfully resist translations as ‘untranslatables’. In literary science, the term is used to refer to terms and concepts that defy easy, or, in some cases any, translation from one language and culture to another.

⁴⁸ Callon, ‘Some elements of a sociology of translation’, p. 207.

⁴⁹ Ibid., p. 220.

⁵⁰ Best, J. & Walters, W. ‘Actor-Network Theory and International Relationality: Lost (and Found) in Translation’, *International Political Sociology*, vol. 7, no. 3 (2013), p. 333.

The global nuclear non-proliferation regime also struggles with a number of untranslatables. In chapter two, I examine (1) why and how certain (human and nonhuman) actors resist being (fully) integrated into the global nuclear nonproliferation regime; and (2) why and how some (human and nonhuman) actors decided to break-out and leave the regime.

1.3.2 Counter-conduct

In *Security, Territory, Population*, Foucault contends that processes of governmentality are never complete, and possibilities of refusal and resistance in the form of ‘counter-conduct’ always exist. Counter-conduct is a “struggle against the processes implemented for conducting others”.⁵¹ Struggles “not to be governed like that, by that, in the name of those principles, with such and such objective in mind and by means of such procedures, not like that, not for that, not by them”.⁵² For Foucault, the history of government as the conduct of conduct, and the history of the counter-conducts opposed to it, are inseparable.⁵³ For example, in the context of discussing the development of Christian pastoral power in the Middle Ages, Foucault notes that “if the objective of the pastorate is men’s conduct, I think equally specific movements of resistance and insubordination appeared *in correlation* with this that could be called specific revolts of conduct”.⁵⁴ Foucault identifies five main forms of ‘pastoral counter-conduct’ and notes that

...the fundamental elements in these counter-conducts are clearly not absolutely external to Christianity, but are actually border-elements, if you like, which have been continually re-utilized, re-implanted, and taken up again in one or another direction...So, if you like, the struggle was not conducted in the form of absolute exteriority, but rather in the form of the permanent use of tactical elements that are pertinent in the anti-pastoral struggle, insofar as they fall *within*, in a marginal way, the general horizon of Christianity.⁵⁵

⁵¹ Foucault, *Security, Territory, Population*, p. 201.

⁵² Foucault, M. *The Politics of Truth* (New York: Semiotext(e), 1997), p. 75.

⁵³ Foucault, *Security, Territory, Population*, p. 357.

⁵⁴ *Ibid.*, p. 194 (emphasis added).

⁵⁵ *Ibid.*, pp. 214-15 (emphasis added).

Through the example of the early Christian pastorate, Foucault shows that counter-conducts do not appear in the form of an external, revolutionary force that completely rejects government and seeks to overthrow it. Rather, they are internal but marginal border-elements of forms of governmentality, seeking to reinterpret, redirect and rebalance elements *within* the “apparent and visible official governmentality of society”.⁵⁶ Counter-conduct, Foucault argues, might be best understood as “the art of not being governed quite so much”, or “the will not to be governed thusly, like that, by these people, at this price”.⁵⁷

Nevertheless, towards the end of his lecture on pastoral counter-conduct in the Middle Ages Foucault warns that counter-conducts are in constant danger of being “taken up” and reincorporated into the forms of governmentality they oppose; as indeed has happened with the anti-pastoral struggles: when “threatened by all these movements of counter-conduct, the Church tries to take them up and adapt them for its own ends”.⁵⁸ As Carl Death put it recently, power and resistance become deeply interpenetrated and “mutually constitutive” with resistance always potentially “reinforce[ing] and bolster[ing], as well as *and at the same time as*, undermining and challenging dominant forms” of government.⁵⁹

⁵⁶ Ibid., p. 199.

⁵⁷ Foucault, *The Politics of Truth*, p. 42 & 72.

⁵⁸ Foucault, *Security, Territory, Population*, p. 215.

⁵⁹ Death, C. ‘Counter-Conducts: A Foucauldian Analysis of Protest’, *Social Movement Studies*, vol. 9, no. 3 (2010), p. 236 (emphasis in original).

In chapter four, I show how resistance against Israel’s ambiguous nuclear governmentality is challenging and undermining, as well as and at the same time as, reinforcing and bolstering certain aspects of Israel’s nuclear ambiguity policy at both the domestic and international levels.

1.3.3 *Parrhēsia*

Foucault first introduced the notion of ‘*parrhēsia*’ in his lecture series on ‘Discourse and Truth’ at the University of California in Berkley in 1983. *Parrhēsia* is a particular mode of truth-telling (‘fearless speech’) that Foucault locates in Ancient Greece. *Parrhēsia* makes its first appearance in Greek literature “in Euripides [c.484–407 BC], and occurs throughout the ancient Greek world of letters from the end of the Fifth Century BC”.⁶⁰ Foucault defines *Parrhēsia* as

a verbal activity in which a speaker expresses his personal relationship to truth, and risks his life because he recognizes truth-telling as a duty to improve or help other people (as well as himself). In [*parrhēsia*], the speaker uses his freedom and chooses frankness instead of persuasion, truth instead of falsehood or silence, the risk of death instead of life and security, criticism instead of flattery, and moral duty instead of self-interest and moral apathy.⁶¹

Parrhēsia has five characteristics that distinguish it from other modes of truth telling such as prophecy, sage, and, *tekhnē*. The first characteristic of *parrhēsia* is *frankness*. In *parrhēsia*, the speaker or the parrhesiast is supposed to give a complete and exact account of what s/he has in mind, without hiding any information. The second characteristic of *parrhēsia* is that there is always an exact coincidence between belief and truth. In *parrhēsia*, the parrhesiast has no doubt about his or her possession of the truth. As Foucault put it, “The *parrhesiastes* is not only sincere and says

⁶⁰ Foucault, M. *Fearless Speech* (Los Angeles, CA: Semiotext(e), 2001), p. 11.

⁶¹ *Ibid.*, pp. 19-20.

what is his opinion, but his opinion is also the truth. He says what he *knows* to be true”.⁶² But how can the addressees of *parrhēsia* be certain that what the alleged parrhesiast believes is, in fact, the truth? In ancient Greek culture, Foucault argues, this question was never asked: “in the Greek conception of *parrhēsia*... there does not seem to be a problem about the acquisition of the truth since such truth-having is guaranteed by the possession of certain moral qualities”, first and foremost courage. “If there is a kind of ‘proof’ of the sincerity of the *parrhesiastes* it is his *courage*. The fact that a speaker says something dangerous—different from what the majority believes—is a strong indication that he is a *parrhesiastes*”.⁶³ Furthermore, someone is said to use *parrhēsia* and merits consideration as a parrhesiast only if there is a risk or danger for him or her in telling the truth. Foucault gives us the example of “the philosopher addressing himself to a sovereign, to a tyrant, telling him that his tyranny is disturbing and unpleasant because tyranny is incompatible with justice”. Such a speech act, Foucault argues, is risky and dangerous “since the tyrant may become angry, may punish the philosopher, may exile him, may kill him”.⁶⁴ The fourth characteristic of *parrhēsia* is *criticism*. The aim of *parrhēsia* is not to demonstrate the truth to a more powerful other, but rather to criticize the interlocutor in an attempt to bring about positive change. As William Walters put it:

The parrhesiast is prepared to risk much in voicing an uncomfortable truth. At the same time they hope that, precisely because they speak frankly and courageously, their words might strike a chord with the sovereign or with the demos. As a consequence, there is always the hope in *parrhēsia* that this frank speech will have a positive impact on the affairs of the community.⁶⁵

⁶² Ibid., p. 14.

⁶³ Ibid., p. 15.

⁶⁴ Ibid., p. 16.

⁶⁵ Walters, W. ‘*Parrhēsia* Today: Drone Strikes, Fearless Speech and the Contentious Politics of Security’, *Global Society*, vol. 28, no. 3 (2014), p. 279.

The last characteristic *parrhēsia* is Duty. In *parrhēsia*, telling the truth is regarded as duty. The parrhesiast is free to remain silent, but decides to risk his or her life because s/he recognizes truth-telling as a duty to improve or help other people.

In a recent article, Walters argues that the idea of *parrhēsia* “can contribute to a more nuanced and variegated understanding of contestation within the field of security today”. Walters suggests three ways in which *parrhēsia* can be useful:

1. *Parrhēsia* can sensitise us to the impact that individual (or, more accurately, individualised) actions and the mobilization of personal, embodied, experienced truths can make on the politics of security. The analysis of *parrhēsia* can compensate for the tendency to analyse resistance mainly at the level of the activity of groups, or to associate transformation only with the pressure of faceless social forces. It can thus contribute to a growing interest among scholars in the difference made by acts.
2. *Parrhēsia* alerts us to the place of courage and personal commitment in politics. Hence it might contribute to an expansion of our understanding of the force of emotions and affects in effecting political change.
3. *Parrhēsia* addresses situations where speaking out is dangerous. Few things are more dangerous in our societies than speaking out and disclosing certain truths pertaining to the *arcana imperii*, the secrets of the state. *Parrhēsia* can therefore be a useful tool to expand understanding of the politics and modalities of secrecy and disclosure, an aspect of security studies that surely merits further theoretical reflection.⁶⁶

In chapter four, I analyze the ‘Vanunu Affair’ through Foucault’s analytic of *parrhēsia*. Why did the former Dimona worker Mordechai Vanunu decide to blow the whistle on Israel’s nuclear secrets? How did he make the Israeli bomb public? What were the effects of his revelations in Israel and abroad? How did his revelations affect Israel’s nuclear ambiguity policy? And what did it cost Vanunu to tell the truth about Israel’s nuclear program? I argue that Vanunu’s activity possesses many of the hallmarks and characteristics of *parrhēsia*. However, the aim of chapter

⁶⁶ Ibid., pp. 279-80.

four is not to simply ‘apply’ this analytical framework to the Vanunu case, but rather to use the Vanunu Affair to examine some important shifts in *parrhēsia*.

CHAPTER 2: THE ORIGINS AND EVOLUTION OF THE GLOBAL NUCLEAR NONPROLIFERATION REGIME: A ACTOR-NETWORK PERSPECTIVE

[I]t's very important to understand that by developing atomic energy for peaceful purposes, you reach the nuclear [weapons] option. There are no two atomic energies.

– Dr. Ernst David Bergman, Chairman of the Israel Atomic Energy Commission (1952-66)⁶⁷

In this chapter, I analyze the workings of the global nuclear nonproliferation regime from the Actor-Network perspective developed in chapter one. While the global nonproliferation regime comprises dozens of international governmental organizations (IGOs), international non-governmental organizations (INGOs), governmental agencies, think tanks, and academic programs and institutes, this chapter will focus on (1) the United States, which has been at the forefront of efforts to create an international nuclear-control regime since the end of World War II; (2) the Nuclear Non-proliferation Treaty (NPT), which is the core component of the global nonproliferation regime; and (3) the International Atomic Energy Agency (IAEA), which is empowered by the NPT to police the nuclear conduct of states.

The chapter is divided into two main parts, of unequal size. In the first and larger part of the chapter, I examine the origins and evolution of the nuclear nonproliferation regime, with a particular focus on the intersement devices through which the United States and its allies managed to enroll 191 states into the regime. In the second part, I analyze why and how different

⁶⁷ Quoted in Cochran, E. S. 'Israel's Nuclear History', *Israel Affairs*, vol. 6, no. 3-4 (2000), p. 138.

human and non-human actors have resisted being integrated into the nonproliferation regime and how the regime-builders have reacted to these resistances.

2.1 The Origins and Evolution of the Global Nuclear Nonproliferation Regime

One of the central methodological guiding principles of Actor-Network Theory (ANT) is to start research with a “clean slate”. As John Law put it, “If we want to understand the mechanics of power and organization it is important not to start out assuming whatever we wish to explain... If we do this we close off most of the interesting questions about the origins of power and organization”.⁶⁸ In the following, I trace the origins and evolution of the nuclear nonproliferation regime starting in 1938, with the discovery of nuclear fission.

2.1.1 Problematizing the Bomb Before the Bomb

In December 1938, the German chemists Otto Hahn and Fritz Straßmann inadvertently discovered nuclear fission, a process in which the nucleus of an atom splits into smaller nuclei and releases a very large amount of energy. A few months later, the physicists Albert Einstein and Leó Szilárd sent a letter to U.S. President Franklin D. Roosevelt warning him that Nazi Germany might try to use this discovery to build “extremely powerful bombs of a new type” and urged him to do likewise.⁶⁹ When leading American and British nuclear scientists confirmed that an ‘atomic bomb’ was technically feasible, Roosevelt authorized an all-out American bomb development program known as the ‘Manhattan Project’. In August 1943, Roosevelt, in an attempt to speed up the bomb-

⁶⁸ Law, J. ‘Notes on the Theory of the Actor-Network: Ordering, Strategy, and Heterogeneity’, *Systems Practice*, vol. 5, no. 4 (1992), p. 384.

⁶⁹ See ‘Einstein-Szilárd Letter to Franklin D. Roosevelt’, 02 August 1939. Available at: <http://www.fdrlibrary.marist.edu/archives/pdfs/docsworldwar.pdf>. Last accessed: August 11, 2018.

production process, accepted British Prime Minister Winston Churchill's offer to merge their countries' nuclear weapon programs.⁷⁰

However, in 1944 some of the scientific personnel involved in the Manhattan Project began to challenge the secret Anglo-American nuclear alliance. One of them was the preeminent nuclear physicist and Nobel laureate Niels Bohr, who, at that time, was working as a technical consultant at the Los Alamos Laboratory in New Mexico. Bohr, who had contact with nuclear scientists in the Soviet Union, was suspecting that the Soviets were aware of the Manhattan Project and that they might be already working on their own A-bomb project. He was convinced that the Soviets had the technical skill and industrial capacity to build a bomb soon after the war was over. In early 1944, Bohr warned Roosevelt and Churchill that a post-war nuclear arms race with the Soviet Union would be inevitable, unless the United States and Britain informed the Soviets about their A-bomb project and initiated efforts to work out a system for the international control of atomic weapons, with full exchange of information. Cooperation in the development of such a plan would not only prevent a global nuclear arms race, Bohr contended, but could also be used as a cornerstone to create a new era of peaceful international relations.⁷¹

Nevertheless, neither Roosevelt nor Churchill was willing to inform the Soviet Union about their secret project, let alone cooperate with the Soviets in the nuclear field. The bomb was not to be

⁷⁰ For a discussion of the origins and demise of the Anglo-American nuclear alliance, see Bernstein, B. J. 'The Uneasy Alliance: Roosevelt, Churchill, and the Atomic Bomb, 1940-1945', *The Western Political Quarterly*, vol. 29, no. 2 (1976), pp. 202-30.

⁷¹ See Oppenheimer, J. R. 'Niels Bohr and Atomic Weapons', *The New York Review of Books*, 17 December 1964, np. Available at: <https://www.nybooks.com/articles/1964/12/17/niels-bohr-and-atomic-weapons/>. Last accessed: August 11, 2018; Bernstein, B. J. 'The Quest for Security: American Foreign Policy and International Control of Atomic Energy, 1942-1946', *The Journal of American History*, vol. 60, no. 4 (1974), pp. 1006-007; and Sherwin, M. J. 'The Atomic Bomb and the Origins of the Cold War: U.S. Atomic-Energy Policy and Diplomacy, 1941-45', *The American Historical Review*, vol. 78, no. 4 (1973), pp. 954-60.

shared with the Soviets, but held in reserve to help enforce the peace that the Anglo-American alliance desired. In the following months, the two leaders agreed on a series of measures that aimed to uphold the American and British nuclear monopoly for the indefinite future. On June 13, Roosevelt and Churchill signed an Agreement and Declaration of Trust, specifying that the United States and Britain would cooperate in seeking to control global supplies of uranium (the main ingredient for atomic bombs) and deny it to potential proliferators.⁷² Three months later, on September 19, the two leaders signed a top-secret aide-mémoire which determined that “The matter [the A-bomb project] should continue to be regarded as of the utmost secrecy” and that “Enquiries should be made regarding the activities of Professor Bohr and steps taken to ensure that he is responsible for no leakage of information, particularly to the Russians”.⁷³

However, Bohr was not the only scientist who opposed the notion that a post-war Anglo-American atomic monopoly was possible. The U.S. War Department’s science advisors Vannevar Bush and James B. Conant predicted in September 1944 that any nation with good technical and scientific resources, such as the Soviet Union, could probably develop an atomic bomb in three or four years. Moreover, “accidents of research might even put some other nation ahead”. Bush and Conant warned the Roosevelt administration that the maintenance of nuclear secrecy would not prevent other states from starting nuclear weapons programs because “all the basic facts [regarding nuclear fission] were known to physicists” around the globe. To the contrary, any attempt “to carry on in complete secrecy further developments of the military applications of this art” would prompt the

⁷² See ‘Agreement Between the United States and the United Kingdom for the Establishment of the Combined Development Trust’, 13 June 1944. Available at: <https://history.state.gov/historicaldocuments/frus1944v02/d885>. Last accessed: August 11, 2018.

⁷³ ‘Aide-Mémoire Initialed by President Roosevelt and Prime Minister Churchill’, 19 September 1944, Top Secret. Available at: <https://history.state.gov/historicaldocuments/frus1944Quebec/d299>. Last accessed: August 11, 2018.

Soviet Union and others “to proceed in secret along the same lines”. The Anglo-American advantage, Bush and Conant contended, lay “entirely in the construction of plants for the manufacture of materials”. The bottom line was that the atomic bomb presented “no great difficulty and the way that anyone would naturally try to accomplish this... will succeed”. Like Bohr, Bush and Conant were convinced that a postwar nuclear arms race with the Soviets was inevitable unless the United States and Britain initiated efforts during the war to establish the international control of atomic energy. A necessary first step into this direction would be to inform the Soviet Union about the secret A-bomb project and share all information concerning atomic energy (except the details for its military use) as soon as the first atomic bomb had been “demonstrated”.⁷⁴

Nevertheless, like Bohr, Bush and Conant ultimately failed to convince Roosevelt of their plan. But their efforts were not in vain as some of their ideas would soon find their way into the Truman administration.

2.1.2 Nutopianism and the Problem of the International Control of Atomic Energy

On 16 July 1945, two months after the surrender of Nazi Germany, the United States successfully tested a working atomic bomb at the Trinity Test Site in New Mexico. Three weeks later, on August 6, the American B-29 bomber ‘Enola Gay’ dropped an A-bomb (dubbed ‘Little Boy’) over the Japanese city of Hiroshima, which immediately killed 80,000 people. Three days later, another bomb (‘Fat Man’) was dropped on the city of Nagasaki, instantly killing a further 40,000 people.

⁷⁴ The Office of Scientific Research and Development (OSRD), Memorandum, from Vannevar Bush and James B. Conant, to Henry L. Stimson, 30 September 1944, Top Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb525-The-Atomic-Bomb-and-the-End-of-World-War-II/documents/005.pdf>. Last accessed: July 02, 2018. See also, Bernstein, ‘The Quest for Security’, pp. 1007-008; and Sherwin, ‘The Atomic Bomb and the Origins of the Cold War’, pp. 960-61.

A few days later, Japan announced its surrender. U.S. President Harry S. Truman later claimed that he ordered the use of atomic bombs to bring the war with Japan to a speedy end and spare the lives of hundreds of thousands of American soldiers. However, there is a huge body of ‘revisionist’ A-bomb literature that argues that the bombs were unnecessary to force Japan’s surrender. According to this literature, the Japanese were already close to surrender and the bombs were primarily intended as a political and diplomatic weapon against the Soviet Union.⁷⁵ As Wolfgang Abendroth put it, “Although the nuclear bombs on Hiroshima and Nagasaki hit Japan (which was already defeated), they were—in the illusion of being able to maintain a long-lasting atomic monopoly—a ‘warning’ to the Soviet Union, which was considered to be the biggest threat to the U.S.-led capitalist world order”.⁷⁶

On 3 October 1945, two months after the nuclear bombings of Hiroshima and Nagasaki, Truman delivered a special message to Congress on atomic energy. At that time, the United States still had a monopoly on nuclear weapons as well as a head start on nuclear development. However, in his message Truman warned that the atomic bomb would not remain a secret for long: “Scientific opinion appears to be practically unanimous that the essential theoretical knowledge upon which the discovery is based is already widely known. There is also substantial agreement that foreign research can come abreast of our present theoretical knowledge in time”. The possible spread of nuclear weapons to other states, Truman feared, would lead to a “desperate armament race which

⁷⁵ See, for example, Alperovitz, G. *Atomic Diplomacy: Hiroshima and Potsdam* (New York: Simon & Schuster, 1965); Alperovitz, G. *The Decision to Use the Atomic Bomb and the Architecture of an American Myth* (New York: Knopf, 1995); and Bird, K. & Lifschultz, L. (eds.) *Hiroshima’s Shadow: Writings of the Denial of History and the Smithsonian Controversy* (Stony Creek, CT: Pamphleteer’s Press, 1998).

⁷⁶ Quoted in Rupp, R. ‘US Massenmord und die Legende von Hiroshima [US Mass murder and the legend of Hiroshima]’, *KenFM*, 10 August 2018 [translated by Ali Diskaya]. Available at: <https://kenfm.de/tagesdosis-10-8-2018-us-massenmord-und-die-legende-von-hiroshima/>. Last accessed: August 11, 2018.

might well end in disaster”.⁷⁷ There was nothing that any state, including a great power like the United States, could do to defend itself against the devastation of an atomic attack. Thus, to effectively address the challenge of the atomic bomb, states would have to work together and cooperate to create an international system of controls that would eliminate atomic weapons from national armaments.

However, while Truman recognized the problems created by an international nuclear arms race, he also saw the promise of nuclear energy: “Never in history has society been confronted with a power so full of potential danger and at the same time so full of promise for the future of man and for the peace of the world”. Indeed, Truman believed that the discovery of the means of releasing atomic energy would “some day prove to be more revolutionary in the development of human society than the invention of the wheel, the use of metals, or the steam or internal combustion engine”. “The hope of civilization”, Truman contended, “lies in international arrangements looking, if possible, to the renunciation of the use and development of the atomic bomb, and directing and encouraging the use of atomic energy and all future scientific information toward peaceful and humanitarian ends”.⁷⁸

Truman’s notable message, which contains the first official presidential reference to peaceful use of nuclear energy and its future control, was underpinned by what Columba Peoples calls ‘nuto pianism’: “a mode of understanding nuclear power that is imbued with a spirit of technological optimism in relation to ‘peaceful’ nuclear power, but simultaneously qualified by an

⁷⁷ Truman, H. S. ‘Special Message to the Congress on Atomic Energy’, 03 October 1945, np. Available at: <https://www.trumanlibrary.org/publicpapers/index.php?pid=165&st=&st1>. Last accessed: July 03, 2018.

⁷⁸ Ibid.

awareness of the destructive uses and catastrophic potentialities of nuclear weapons”. Such nutoptianism, Peoples argues, “is in turn predicated on the ‘saving power’ of ‘the atom’: the assumption that nuclear power has redeeming features crucial to human progress and economic prosperity, the development of which should be facilitated within the structures of international order”.⁷⁹

Thus, Truman’s nutoptianism turned the problem of the atomic bomb (how to prevent the spread and use of nuclear weapons) into “the problem of the international control and development of atomic energy”: how to prevent the use of atomic energy for destructive purposes while, *at the same time*, promoting the use of it for peaceful ends. Truman’s problematization of nuclear energy was challenging, and he himself did not provide any solutions. Instead, he proposed initiating “discussions, first with our associates in the discovery [of nuclear energy], Great Britain and Canada, and then with other nations [including, presumably, the Soviet Union], in an effort to effect agreement on the conditions under which cooperation might replace rivalry in the field of atomic power”.⁸⁰

Truman’s subsequent meetings with British Prime Minister Clement Attlee and Canadian Prime Minister Mackenzie King resulted in the Joint Declaration of 15 November 1945, which called for the international control of atomic energy. The declaration warned that “the application of recent scientific discoveries to the methods and practice of war has placed at the disposal of mankind means of destruction hitherto unknown, against which there can be no adequate military defense,

⁷⁹ Peoples, C. ‘Redemption and Nutoptia: The Scope of Nuclear Critique in International Studies’, *Millennium: Journal of International Studies*, vol. 44, no. 2 (2016), p. 216.

⁸⁰ Truman, ‘Special Message to the Congress on Atomic Energy’.

and in the employment of which no single nation can in fact have a monopoly”. This situation, the signatories contended, demanded urgent international action. However, echoing Truman’s earlier message to the U.S. Congress, the signatories insisted that the ultimate goal of international action should not only be to “prevent the use of atomic energy for destructive purposes”, but also to “promote the use of recent and future advances in scientific knowledge, particularly in the utilization of atomic energy, for peaceful and humanitarian ends”. The major obstacle to achieving this goal was that “the military exploitation of atomic energy depends, in large part, upon the same methods and processes as would be required for industrial uses”. No answer could be given to the following crucial question: How to prevent the use of atomic energy for destructive purposes while, simultaneously, promoting the use of it for constructive ends? Accordingly, the signatories of the Joint Declaration proposed that a special commission should be set up under the United Nations (UN) to prepare recommendations on “entirely eliminating the use of atomic energy for destructive purposes and promoting its widest use for industrial and humanitarian purposes”. Thus, the ultimate goal of the three signatory states was to develop an international nuclear-control regime that aimed to restrain the use of atomic energy for military ends, and, simultaneously, promote the use of it for peaceful purposes.

In order to incentivize other states to join the regime, the signatories offered to share “the specialized information regarding the practical application of atomic energy” with collaborating states:

Representing, as we do, the three countries which possess the knowledge essential to the use of atomic energy, we declare at the outset our willingness, as a first contribution, to proceed with the exchange of fundamental scientific information and the interchange of scientists and scientific literature for peaceful ends with any nation that will fully reciprocate.

However, such a knowledge transfer would only be possible after effective safeguards were in place that protected complying states against the hazards of violations and evasions:

We are not convinced that the spreading of the specialized information regarding the practical application of atomic energy, before it is possible to devise effective, reciprocal, and enforceable safeguards acceptable to all nations, would contribute to a constructive solution of the problem of the atomic bomb. On the contrary we think it might have the opposite effect. We are, however, prepared to share, on a reciprocal basis with others of the United Nations, detailed information concerning the practical industrial application of atomic energy just as soon as effective enforceable safeguards against its use for destructive purposes can be devised.⁸¹

In December 1945, U.S. Secretary of State James F. Byrnes and British Foreign Secretary Ernest Bevin flew to Moscow to secure Soviet support for the proposed U.N. commission for the international control of atomic energy. The Soviets accepted the proposal with the one reservation that the proposed commission would remain subject to the U.N. Security Council (UNSC), which would enable the Soviet Union to veto any initiative in the nuclear field that was not in its interest. Byrnes and Bevin agreed.⁸²

One month later, on 24 January 1946, the U.N. General Assembly established the U.N. Atomic Energy Commission (UNAEC) “to deal with the problems raised by the discovery of atomic energy”. The General Assembly asked the UNAEC to “make specific proposals: (a) for extending between all nations the exchange of basic scientific information for peaceful ends; (b) for control of atomic energy to the extent necessary to ensure its use only for peaceful purposes; (c) for the elimination from national armaments of atomic weapons and of all other major weapons adaptable

⁸¹ See ‘Joint Declaration by the Heads of Government of the United States, the United Kingdom, and Canada’, 15 November 1945, in U.S. Department of State, *Documents on Disarmament, Volume 1: 1945–1956* (Washington, D.C.: U.S. Government Printing Office, 1960), pp. 1-3.

⁸² See ‘Moscow Communiqué by the Foreign Ministers of the United States, the United Kingdom, and the Soviet Union [Extracts]’, 27 December 1945, in U.S. Department of State, *Documents on Disarmament, Volume 1: 1945–1956* (Washington, D.C.: U.S. Government Printing Office, 1960), pp. 3-5.

to mass destruction; (d) for effective safeguards by way of inspection and other means to protect complying States against the hazards of violations and evasions”.⁸³

2.1.3 The Acheson-Lilienthal Group and the Dual-Use Dilemma

To craft a specific U.S. proposal for submission to the UNAEC, Secretary of State Byrnes set up a Committee on Atomic Energy on 7 January 1946, with Undersecretary of State Dean Acheson as Chairman. Acheson appointed a Board of Consultants to study the problem of the international control of atomic energy and draft an initial report. The Board was chaired by David E. Lilienthal and included some key participants in the Manhattan Project, most notably Dr. J. Robert Oppenheimer, the ‘father’ of the atomic bomb.

On 16 March 1946, after seven weeks of intensive work, the Board presented the Committee with ‘A Report on the International Control of Atomic Energy’, what has come to be known as the ‘Acheson-Lilienthal Report’. The report stated from the outset that the board members were given as their starting point “a political commitment already made by the United States”, namely “to seek by all reasonable means to bring about international arrangements to prevent the use of atomic energy for destructive purposes and to promote the use of it for the benefit of society”.⁸⁴ Although the board members agreed with this goal, they warned that this would be a highly difficult and potentially dangerous undertaking because “the development of atomic energy for peaceful purposes and the development of atomic energy for bombs are in much of their course

⁸³ ‘General Assembly Resolution 1 (I): Establishment of a Commission To Deal With the Problems Raised by the Discovery of Atomic Energy’, 24 January 1946, in U.S. Department of State, *Documents on Disarmament, Volume I: 1945–1956* (Washington, D.C.: U.S. Government Printing Office, 1960), pp. 6-7.

⁸⁴ Board of Consultants, ‘A Report on the International Control of Atomic Energy’ (Washington, D. C.: U.S. Government Printing Office, 16 March 1946), p. 1. Available as Department of State Publication 2498 at: https://www.cia.gov/library/readingroom/docs/Report_on_the_International_Control_of_Atomic_Energy_16_Mar_1946.PDF. Last accessed: July 10, 2018.

interchangeable and interdependent”.⁸⁵ The main problem, according to the Board, was that many of the key technologies and materials associated with the production of electricity from nuclear reactions were ‘dual-use’; that is, useful for both civilian and military ends. Thus, the Truman administration’s utopianism and the inherently dual-use nature of key nuclear technologies and materials gave rise to what proliferation experts today refer to as the ‘dual-use dilemma’: How could the diffusion of nuclear technologies and materials for peaceful purposes be reconciled with the avoidance of nuclear weapons proliferation? How could there be confidence that states will not seek nuclear weapons under the cover of civil intentions?⁸⁶

As mentioned above, the signatories of the Joint Declaration were aware of the dual-use problem, but believed that it could be overcome through an international inspection system. However, the board members contended that “a system of inspection superimposed on *an otherwise uncontrolled exploitation of atomic energy by national governments* will not be an adequate safeguard”.⁸⁷ No system of inspection, no matter how rigorous and sophisticated, could afford any reasonable security against the diversion of dual-use nuclear technologies and materials to the purposes of war.

Instead, the report called for the creation of an Atomic Development Agency (ADA), an international entity that would control all ‘dangerous’ nuclear activities involving dual-use technologies and materials, which covered virtually the entire nuclear fuel cycle. The field of relatively ‘safe’ activities, involving mainly ‘non-dangerous’ (i.e. non-dual use) nuclear

⁸⁵ Ibid., p. 4 (emphasis added).

⁸⁶ See Miller, S. E. & Sagan, S. D. ‘Nuclear power without nuclear proliferation?’, *Daedalus*, vol. 138, no. 4 (2009), p. 13.

⁸⁷ Ibid., p. 5 (emphasis in original).

technologies and materials, would be left in national hands, under the condition that they would be subject to moderate controls by the ADA, exercised through accounting, inspection, supervision, management, and licensing (See Table 2.1).⁸⁸ Once an effective control system was operational, the United States would destroy its nuclear arsenal and put all its nuclear installations under the supervision of the ADA.

Table 2.1 ‘Dangerous’ and ‘Safe’ Nuclear Activities According to the 1946 Acheson-Lilienthal Report

Dangerous activities involving dual-use nuclear technologies and/or materials	Safe activities involving non-dual use nuclear technologies and/or materials
1. Prospecting, mining, and refining of uranium, and, to a lesser extent, thorium	1. The application of radioactive material as tracers in scientific, medical, and technological studies
2. The enrichment of the isotope uranium-235	2. The operation of low power-level research reactors using denatured fuels
3. The operation of the various types of reactors for making plutonium, and of separation plants for extracting the plutonium	3. The development of power from the fission of denatured uranium-235 and plutonium in high power-level reactors
4. Research and development in atomic explosives	

Undersecretary Acheson’s Committee on Atomic Energy was satisfied with the Board’s report: “In our opinion it furnishes the most constructive analysis of the question of international control we have seen and a definitely hopeful approach to a solution of the entire problem”.⁸⁹ The final report was presented to Secretary of State Byrnes on 17 March “not as a final plan, but as a place to begin, a foundation on which to build”.⁹⁰

⁸⁸ See *Ibid.*, pp. 25-30.

⁸⁹ *Ibid.*, p. VIII.

⁹⁰ U.S. Department of State, ‘The Secretary of State’s Committee on Atomic Energy to the Secretary of State’, 17 March 1946. Available at: <https://history.state.gov/historicaldocuments/frus1946v01/d416>. Last accessed: July 10, 2018.

2.1.4 The Baruch Plan and the Soviet Counterproposal

At approximately the same time that the Acheson-Lilienthal report was forwarded to Byrnes, President Truman selected Bernard M. Baruch to represent the United States at the UNAEC and to sell the Acheson-Lilienthal report to the rest of the world. However, in the process of translating the report into the final American proposal for the international control atomic energy, Baruch made two key changes that proved fatal. First, Baruch insisted that there must be “immediate, swift, and sure” sanctions, armed if needed, against any nation that violated the terms of an atomic energy treaty. Second, Baruch demanded that imposition of sanctions not be subject to the veto power of the five permanent members of the UNSC: “There must be no veto to protect those who violate their solemn agreements not to develop or use atomic energy for destructive purposes”.⁹¹ Baruch’s insistence on the need for veto-proof sanctions was a result of his deep distrust of the Soviet Union and his concern that the United States and its allies would be unable to take the particular quick and decisive action that would be necessary in the case of a Soviet violation of the proposed atomic energy agreement.⁹² The drafters of the Acheson-Lilienthal report were wrong to assume that it would take at least a year before any nation violating the atomic energy treaty could begin producing bombs. According to Baruch, the warning period would be only three to twelve months, which meant that “the time between violation and preventive action or punishment would be all too short for extended discussion [in the UNSC] as to the course to be followed”.⁹³ The one issue that Baruch left unchanged throughout the process of developing the official U.S. proposal was the commitment to maintain the U.S. atomic arsenal (which, in June 1946, numbered nine)

⁹¹ ‘The Baruch Plan: Statement by the United States Representative (Baruch) to the United Nations Atomic Energy Commission’, 14 June 1946, in U.S. Department of State, *Documents on Disarmament, Volume 1: 1945–1956* (Washington, D.C.: U.S. Government Printing Office, 1960), p. 8 & 12.

⁹² See Gerber, L. G. ‘The Baruch Plan and the Origins of the Cold War’, *Diplomatic History*, vol. 6, no. 4. (1982), pp. 78-80.

⁹³ ‘The Baruch Plan: Statement by the United States Representative (Baruch) to the United Nations Atomic Energy Commission’, p. 12.

until firm guarantees were in place that no other nation could arm itself nuclearly: “before a country is ready to relinquish any winning weapons it must have more than words to reassure it. It must have a guarantee of safety, not only against the offenders in the atomic area but against the illegal users of other weapons—bacteriological, biological, gas—perhaps—why not!—against war itself”.⁹⁴ Moreover, the United States would be allowed to continue to manufacture nukes until the negotiated guarantees were in place and effective. Baruch’s insistence on implementing a control plan in stages so as to maintain America’s atomic monopoly for an indefinite period of time reflected a sense of bargaining power that he and other senior U.S. officials felt at that time vis-à-vis the Soviet Union. As Baruch told to Lilienthal in December 1946, “America can get what she wants if she insists on it. After all, we’ve got it [the bomb] and they [the Soviets] haven’t and won’t for a long time to come”.⁹⁵

On 14 June 1946, at the opening session of the UNAEC, Baruch presented his plan to the rest of the world. It received strong support from Britain, Canada, China, Brazil and Mexico. However, “with the Cold War unfolding, the Soviet Union was unwilling to accept a plan that would eliminate its veto, deprive it of its option of acquiring atomic weapons, and open its borders to intrusive international inspection, all in the hope that the United States would eventually relinquish the bomb”.⁹⁶ Instead, the representative from the Soviet Union, Andrei Gromyko, submitted an alternative proposal on June 19, which reversed the staging of the Baruch Plan. Gromyko’s proposal was modelled on the 1925 Geneva Protocol forbidding the use of chemical and bacteriological weapons, though it went further in proposing an international convention

⁹⁴ Ibid., p. 13.

⁹⁵ Quoted in Gerber, ‘The Baruch Plan and the Origins of the Cold War’, p. 75.

⁹⁶ Rydell, R. ‘Looking Back: Going for Baruch: The Nuclear Plan that Refused to Go Away’, *Arms Control Today*, 01 June 2006, np. Available at: http://www.armscontrol.org/act/2006_06/LookingbackBaruch. Last accessed: July 12, 2018.

prohibiting not only the use, but also the production and storage of atomic bombs. During his speech, Gromyko made clear that the conclusion of such a treaty was a necessary requisite for Soviet cooperation in the development of an international organization for the control of atomic energy. Matters were complicated further by Gromyko's demand that the activities of the UNAEC should remain consistent with the principles of the U.N. Charter, especially the veto authority of the five great powers.⁹⁷

Whilst Gromyko's rejection of any erosion of the UNSC veto on matters related to the international control of atomic energy was the most forward attack on the Baruch Plan, in reality, the premise of the Soviet proposal, a convention outlawing atomic weapons, was the real problem.⁹⁸ Gromyko's proposal was completely antithetical to the American view that its nuclear arsenal could be addressed only after an effective control system was operational. Indeed, Baruch refused to negotiate the matter with the Soviets and forced a vote in the UNAEC in late December 1946. While Baruch's revolutionary plan for 'world nuclear government' was approved by the UNAEC,⁹⁹ Gromyko's comparatively modest proposal for an international agreement to outlaw the national production, possession, and use of atomic weapons was rejected. Nevertheless, when the Bruch Plan was forwarded to the UNSC for consideration, the Soviet veto prevented it from

⁹⁷ See 'Address by the Soviet Representative (Gromyko) to the United Nations Atomic Energy Commission', 19 June 1946, in U.S. Department of State, *Documents on Disarmament, Volume 1: 1945-1956* (Washington, D.C.: U.S. Government Printing Office, 1960), pp. 17-24.

⁹⁸ Kearn Jr., D. W. 'The Baruch Plan and the Quest for Atomic Disarmament', *Diplomacy & Statecraft*, vol. 21, no. 1 (2010), p. 56.

⁹⁹ See Baratta, J. P. 'Was the Baruch Plan a Proposal for World Government?', *The International History Review*, vol. 7, no. 4 (1985), pp. 592-621. For an in-depth discussion of the idea of world nuclear government as a solution to the problem of the atomic bomb, see Deudney, D. H. *Bounding Power: Republican Security Theory from the Polis to the Global Village* (Princeton, N.J.: Princeton University Press, 2007), pp. 244-64. See also Craig, C. *Glimmer of a New Leviathan: Total War in the Realism of Niebuhr, Morgenthau, and Waltz* (New York: Columbia University Press, 2003).

moving forward. That ended the possibility of any U.S.-Soviet cooperation in the nuclear field at that point and gave way to a desperate nuclear arms race between the two superpowers.

However, to consider the early American attempts to create an international nuclear-control regime a failure, as most historians do, would be a mistake. Although the final American plan for the international control of atomic energy was not adopted by the UNSC, friends and foes alike accepted the U.S. problematization of nuclear energy. As discussed above, U.S. leaders accepted the fact that neither the maintenance of secrecy nor countermeasures would provide adequate defense from the bomb's revolutionary destructiveness. They feared that the spread of nuclear weapons to other states would increase the risk of global nuclear. Crucially, however, while U.S. leaders recognized the problems created by an international nuclear arms race, they also saw the promise of nuclear energy. They believed that nuclear power had redeeming features crucial to human progress, the development of which should be facilitated within the structures of international order. However, the fact that key nuclear technologies and materials associated with the production of electricity from nuclear reactions were dual-use created a problem: how to prevent the use of atomic energy for military purposes while, simultaneously, promoting the use of it for civilian ends? Accordingly, the United States proposed, and other states accepted, that an UNAEC should be established to prepare recommendations on entirely eliminating the use of atomic energy for destructive purposes and promoting its use for peaceful purposes. This was remarkable because, as Gromyko noted in June 1946, "research on the peaceful aspects of nuclear energy was virtually nonexistent in 1946".¹⁰⁰ In other words, the United States successfully translated the problem of the atomic bomb into the problem of the control and development of atomic energy. From now on, every attempt to solve the former had to provide a solution to the

¹⁰⁰ 'Address by the Soviet Representative (Gromyko) to the United Nations Atomic Energy Commission', p. 17.

latter. Indeed, the UNAEC's December 1946 report shows that Gromyko's proposal for an international agreement to outlaw the national production, possession, and use of atomic weapons was rejected by the majority of the UNAEC because it was not sufficient to ensure the use of atomic energy for peaceful purposes.¹⁰¹

2.1.5 The Fourth Country Problem, Atoms for Peace, and the Creation of the International Atomic Energy Agency

About a month after Baruch presented his plan to the UNAEC, on 10 July 1946, the U.S. Congress enacted the Atomic Energy Act (known as the McMahon Act), which made secrecy and the non-sharing of nuclear information official U.S. policy. All information concerning the design, development, and manufacture of nuclear weapons was considered classified and the death penalty was prescribed for passing information to a foreign power. The law was crafted to keep the U.S. nuclear monopoly intact and to give the United States an edge in the development of nuclear technology by denying it to others. Indeed, even Britain, which had made significant contributions to the American nuclear weapons program, was denied any information on atomic energy that could be used for military purposes.

However, as predicted by the War Department advisors Bush and Conant in 1944, the attempt to carry on in complete secrecy further developments of the military applications of atomic energy prompted other states to proceed in secret along the same lines. After the failure to reach an agreement in the UNAEC, the Soviet Union stepped up its nuclear weapons program and managed

¹⁰¹ 'First Report of the United Nations Atomic Energy Commission to the Security Council [Extract]', 31 December 1946, in U.S. Department of State, *Documents on Disarmament, Volume 1: 1945-1956* (Washington, D.C.: U.S. Government Printing Office, 1960), pp. 56-57.

to cross the nuclear threshold on 29 August 1949, when it secretly conducted its first successful nuclear weapon test (codenamed 'First Lightning') at the Semipalatinsk Test Site in Kazakhstan. Britain followed suit on 3 October 1952, when it detonated its first nuclear device in the Monte Bello Islands of Western Australia.

Dwight D. Eisenhower, who was sworn in as U.S. President in January 1953, was deeply worried about the spread of nuclear weapons. He believed that an already dangerous international system would become even more threatening if other states beyond the United States, the Soviet Union, and Britain acquired nukes. On 8 December 1953, in an attempt to resolve the 'fourth country' problem, Eisenhower addressed the U.N. General Assembly and offered his 'Atoms for Peace' proposal. Eisenhower started his speech by acknowledging that the United States no longer had a monopoly on the atomic bomb: "the dread secret and the fearful engines of atomic might are not ours alone". "The knowledge now possessed by several nations will eventually be shared by others, possibly all others", he warned. Pointing to the dangers of a global nuclear arms race, Eisenhower spoke eloquently of the "probability of civilization destroyed" in the event of nuclear war. He also warned that no system of defense could provide adequate protection from the bomb:

[L]et no one think that the expenditure of vast sums for weapons and systems of defense can guarantee absolute safety for the cities and citizens of any nation. The awful arithmetic of the atomic bomb doesn't permit of any such easy solution. Even against the most powerful defense, an aggressor in possession of the effective minimum number of atomic bombs for a surprise attack could probably place a sufficient number of his bombs on the chosen targets to cause hideous damage.

For these reasons, the United States was "instantly prepared" to meet with other states "to seek an acceptable solution to the atomic armaments race which overshadows not only the peace, but the very life, of the world". However, the United States was seeking "more than the mere reduction or elimination of atomic materials for military purposes". "It is not enough", Eisenhower continued,

to take this weapon out of the hands of the soldiers. It must be put into the hands of those who will know how to strip its military casing and adapt it to the arts of peace. The United States knows that if the fearful trend of atomic military build-up can be reversed, this greatest of destructive forces can be developed into a great boon, for the benefit of all mankind. The United States knows that peaceful power from atomic energy is no dream of the future. The capability, already proved, is here today. Who can doubt that, if the entire body of the world's scientists and engineers had adequate amounts of fissionable material with which to test and develop their ideas, this capability would rapidly be transformed into universal, efficient and economic usage?

Thus, President Eisenhower's problematization of nuclear energy was identical to Truman's. Both presidents accepted the fact that neither the maintenance of secrecy nor countermeasures (in the form of early warning systems, missile defenses, etc.) would provide adequate defense from the bombs revolutionary destructiveness. They feared that the spread of nuclear weapons to other states would increase the risk of global nuclear war and demanded international action to reverse this trend. Crucially, however, while both presidents recognized the problems created by an international nuclear arms race, they also saw the promise of nuclear energy. But how could the diffusion of nuclear materials and technologies for civil purposes be reconciled with the avoidance of nuclear proliferation?

Eisenhower's proposed solution to this problem was fundamentally different from the Baruch Plan. In his Atoms for Peace speech he proposed that the "governments principally involved [the nuclear-armed states of that time]... begin now and continue to make joint contributions from their stockpiles of normal uranium and fissionable materials to an international atomic energy agency" which would be set-up under the aegis of the U.N. This agency would be responsible for "the impounding, storage and protection of the contributed fissionable and other materials" and would be given the mission of devising "methods whereby this fissionable material would be allocated to serve the peaceful purposes of mankind". Above all, the material would be used "to provide

abundant electrical energy in the power-starved areas of the world”. In this way, Eisenhower concluded, “the contributing powers would be dedicating some of their strength to serve the needs rather than the fears of mankind”.¹⁰²

Eisenhower viewed his plan as a arms control measure. As Fuhrman put it, “Eisenhower believed that the spread of nuclear technology for peaceful purposes could decrease the likelihood that countries would want nuclear weapons. His logic was in part that if the United States and other suppliers placed an embargo on nuclear assistance they would only encourage countries to build nuclear facilities indigenously”.¹⁰³ Thus, like Truman, Eisenhower believed that peaceful uses and benefits of atomic energy could be used to incentivize a turn away from the temptation towards the construction and use of nuclear weapons. And like his predecessor, Eisenhower was convinced that his plan would only work if the Soviet Union took part in it. “Of those ‘principally involved’”, Eisenhower contended, “the Soviet Union must, of course, be one”.¹⁰⁴

On 21 December 1953, the Soviet government stated publicly that it was ready to engage in talks on bringing the nuclear arms race to an end, but it pointed to two fundamental flaws in Eisenhower’s Atoms for Peace proposal. The first was that it would do nothing to stop the nuclear arms race between the great powers. Governments could continue to produce nukes and invest in the development of more powerful nuclear and thermonuclear weapons if they allocated only a small part of their stockpiles of fissionable material to the proposed agency. The second flaw was

¹⁰² Eisenhower, D. D. ‘Address by Mr. Dwight D. Eisenhower, President of the United States of America, to the 470th Plenary Meeting of the United Nations General Assembly’, 08 December 1953, np. Available at: <https://www.iaea.org/about/history/atoms-for-peace-speech>. Last accessed: August 02, 2018.

¹⁰³ Fuhrmann, M. *Atomic Assistance: How “Atoms for Peace” Programs Cause Nuclear Insecurity* (Ithaca: Cornell University Press, 2012), p. 44.

¹⁰⁴ Eisenhower, ‘Address by Mr. Dwight D. Eisenhower’.

that nothing in Eisenhower's proposal would prevent the use of nuclear weapons: "Acceptance of this proposal in no way restricts an aggressor in the use of the atomic weapon for any purpose or at any time. Consequently, this proposal in no way reduces the danger of atomic attack". In short, Eisenhower's proposal would neither end the nuclear arms race nor reduce the danger of a global nuclear war. To reach these goals, the Soviets contended, there was only one way: international agreement on a convention prohibiting the use, production, and storage of atomic bombs and the establishment of effective international control over the enforcement of such a prohibition.¹⁰⁵ However, the Soviet counterproposal was unacceptable to the Eisenhower administration because it was not in line with its new national security policy (the 'New Look' doctrine), which relied heavily on the threat of nuclear weapons to deter any would-be aggressors from attacking the United States.

Negotiations between the United States and the Soviet Union regarding Eisenhower's Atoms for Peace proposal continued throughout 1954. On March 19, U.S. Secretary of State John Foster Dulles handed Soviet Ambassador Georgy N. Zaroubin an outline of the form an international atomic energy agency might take, which the Soviets found unsatisfactory.¹⁰⁶ On 27 April, Soviet Foreign Minister V. M. Molotov gave Dulles a memorandum complaining that the outline paid no heed to the objection that Atoms for Peace would neither end the nuclear arms race nor reduce the danger of global nuclear war. Molotov's memorandum also pointed to another major flaw in the

¹⁰⁵ See 'Statement by the Soviet Government on President Eisenhower's "Atoms for Peace" Address', 21 December 1953, in U.S. Department of State, *Documents on Disarmament, Volume 1: 1945-1956* (Washington, D.C.: U.S. Government Printing Office, 1960), pp. 401-07.

¹⁰⁶ See 'Outline of an International Atomic Energy Agency', 19 March 1954, in *Atoms for Peace Manual: A Compilation of Official Materials on International Cooperation For Peaceful Uses of Atomic Energy, December 1953-July 1955* (Washington, D.C.: U.S. Government Printing Office, 1955), pp. 266-69.

Atoms for Peace proposal: that it was “possible for the very application of atomic energy for peaceful purposes to be utilized for increasing the production of atomic weapons”. “[T]he fact that the peaceful application of atomic energy [was] connected with the possibility of simultaneous production of atomic materials utilized for the manufacture of the atomic weapon [was] indisputable and [had] been proven in practice”. “Such a situation”, the memorandum continued,

not only fails to lead to a reduction of the stocks of atomic materials utilized for the manufacture of atomic weapons, but also leads to an increase of these stocks without any limitations being applied either to the constantly increasing production of these materials in individual states or to production by the International Agency itself.¹⁰⁷

Gerard Smith, Dulles’s Special Assistant for Atomic Energy Affairs, recalled later that “when Molotov protested to a dubious Dulles that the atoms for peace proposal would result in the spread worldwide of stockpiles of weapon grade material, I had to explain to Dulles that Molotov had been better informed technically than he. Subsequently, the Soviets asked how we proposed to stop this spread. The best we could reply was that ‘ways could be found’”.¹⁰⁸

On May 1, Dulles clarified to Molotov that “The US proposal of March 19 was, of course, not intended as a substitute for an effective system of control of atomic energy for military purposes. The US will continue, as heretofore, to seek means of achieving such control under reliable and adequate safeguards”. Dulles stressed that the United States was “prepared to continue exchanges of views with the Soviet Union for that purpose”, but he also warned Molotov that the United

¹⁰⁷ ‘Soviet Aide Memoire of April 27’, in *Atoms for Peace Manual: A Compilation of Official Materials on International Cooperation For Peaceful Uses of Atomic Energy, December 1953–July 1955* (Washington, D.C.: U.S. Government Printing Office, 1955), p. 271.

¹⁰⁸ Fischer, D. *History of the International Atomic Energy Agency: The First Forty Years* (Vienna: IAEA, 1997), p. 30.

States would go ahead with the creation of the agency whether or not the Soviet Union took part.¹⁰⁹ Indeed, in the absence of a Soviet response to Dulles's ultimatum, the United States began working intensively with Britain, France, Canada, Australia, South Africa, Belgium, and Portugal to produce a draft statute for the new agency.

On 18 July 1955, however, the Soviet Union surprisingly agreed to join the statute negotiations and, as a token of its participation, offered to make available 50 kg of fissionable material to the new agency. What explains this sudden change of heart? As mentioned above, the Soviets were convinced that Eisenhower's plan would neither end the nuclear arms race nor reduce the danger of nuclear war. They also feared that providing countries with nuclear technology and materials for peaceful purposes could help them to start nuclear weapons programs. However, what Soviet leaders feared more than all of the above was to leave the new field of civilian nuclear cooperation to the Americans. They realized that if the Soviet Union did not take part in the new agency, the United States would dominate it and define its role. As the Soviet Foreign Ministry's Department of International Organizations put it in 1954:

Nonparticipation by the USSR in the projected agency would give the USA the opportunity to take the lead in this whole business, to define the direction of this agency's activities at its discretion, to lay down the conditions for helping different states in the area of the peaceful uses of atomic energy, and to use the ties with the scientific circles of other countries in its own interests. Besides, nonparticipation by the USSR in the aforementioned agency could be used by American propaganda in an attempt to portray the Soviet Union as an opponent of international collaboration in this area.¹¹⁰

¹⁰⁹ 'Informal Paper Left With Mr. Molotov by Secretary Dulles, Geneva, May 1, 1954', in *Atoms for Peace Manual: A Compilation of Official Materials on International Cooperation For Peaceful Uses of Atomic Energy, December 1953–July 1955* (Washington, D.C.: U.S. Government Printing Office, 1955), p. 274.

¹¹⁰ Quoted in Holloway, D. 'The Soviet Union and the Creation of the International Atomic Energy Agency', *Cold War History*, vol. 16, no. 2 (2016), p. 12.

In the meantime, however, U.S. nuclear experts began to seriously doubt whether it would be technically possible to develop effective safeguards to prevent the use of dual-use nuclear technologies and materials for military purposes. And without effective safeguards it was doubtful whether the United States should join the new agency. As John Hall, then Director of the U.S. Atomic Energy Commission's Division of International Activities, put it: "In these circumstances, should the US withdraw from its announced intention of furthering atoms for peace throughout the world?" Hall's answer was a clear "No".¹¹¹ Abandoning Atoms for Peace would not only involve a serious loss of face for President Eisenhower and the U.S. Government, but would also leave the field of civilian nuclear cooperation open to the Soviets. The problem was not how to abandon Atoms for Peace but how to make it work in a way "that minimized the proliferation of nuclear weapons throughout the world".¹¹²

On 23 October 1956, after months of rancorous debate, the United States and the Soviet Union finally agreed on a statute for the new agency. The statute was adopted by 82 states and entered into effect on 29 July 1957, the day on which the International Atomic Energy Agency (IAEA) was established. The IAEA was charged with the dual responsibility of promotion and control of nuclear technology. Article II of the statute identified the role of the IAEA as being to "accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world [and to] ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose". To do this, the IAEA was authorized by Article III.A.5 to "establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities, and information made

¹¹¹ Quoted in Fischer, *History of the IAEC*, p. 33.

¹¹² Quoted in *Ibid.*, p. 34.

available by the Agency or at its request or under its supervision or control are not used in such a way as to further any military purpose”.¹¹³ In short, the IAEA offered peaceful nuclear cooperation in exchange for safeguards over nationally operated nuclear facilities – exactly what the Acheson-Lilienthal Report had warned would not work.

Thus, both the United States and the Soviet Union feared that providing countries with nuclear technology and materials for peaceful purposes could help them to start nuclear weapons programs. However, neither superpower was willing to abandon Atoms for Peace because doing so would leave the field of peaceful nuclear cooperation open to the other side. Indeed, the two superpowers began to compete in offering peaceful nuclear research cooperation well before the establishment of the IAEA. In May 1955, the United States and Turkey concluded the first agreement for co-operation in the civilian uses of atomic energy. Two months later, Israel became the second country to sign a bilateral nuclear cooperation agreement with the United States. By the end of 1959, the United States had concluded civilian nuclear cooperation agreements with 42 countries. By 1968, the Soviet Union had narrowed the gap, having concluded peaceful nuclear cooperation agreements with 26 countries. Both countries initially enjoyed strong advantages in the provision of civil nuclear technology and materials to foreign countries. This led to “hierarchical politico-military” as well as “hierarchical politico-industrial relationships”.¹¹⁴ However, this situation should soon change.

¹¹³ IAEA, ‘The Statute of the IAEA’, 1956. Available at: <http://www.iaea.org/About/statute.html#A1.1>. Last accessed: August 07, 2018.

¹¹⁴ Walker, W. *A Perpetual Menace: Nuclear Weapons and International Order* (Oxon: Routledge, 2012), p. 89.

2.1.6 The Problem of Latent Nuclear Proliferation and The Treaty on the Non-Proliferation of Nuclear Weapons

In a press conference on 21 March 1963, U.S. President John F. Kennedy warned the American public of the danger of nuclear proliferation: “I see the possibility in the 1970s of the President of the United States having to face a world in which 15 or 20 or 25 nations may have [nuclear] weapons. I regard that as the greatest possible danger and hazard”.¹¹⁵ Kennedy made this statement a month after a secret Department of Defense study assessed that eight countries (Canada, China, India, Israel, Italy, Japan, Sweden, and West Germany) would likely have the ability to produce nuclear weapons within ten years. “Many of these countries”, the study suggested, “have reduced the lead time and cost of acquiring [nuclear] weapons by getting research reactors and starting nuclear power programs”.¹¹⁶ Thus, the United States was suddenly confronted with the problem of ‘latent nuclear proliferation’, which Avner Cohen and Benjamin Frankel describe as:

[A] situation in which a country [with a civilian nuclear program], whether deliberately or not, has moved substantially closer to having nuclear weapons than it would be if it had no nuclear program whatever... Even if no conscious decision is made to embark on a weapon production program, the continued operation of a civilian nuclear program makes the effort required to produce a bomb, once a decision to do so is made, ever less demanding.¹¹⁷

Thus, as predicted by Soviet and American nuclear experts, Atoms for Peace greatly contributed to the spread of latent nuclear capabilities around the world (all of the countries listed in the above study received, in one way or the other, nuclear assistance from one of the two superpowers). As discussed above, the United States and the Soviet Union accepted the long-term risks of nuclear

¹¹⁵ Kennedy, J. F. ‘News Conference 52’, 21 March 1963, np. Available at: <https://www.jfklibrary.org/Research/Research-Aids/Ready-Reference/Press-Conferences/News-Conference-52.aspx>. Last accessed: September 07, 2018.

¹¹⁶ The Department of Defense, Memorandum, from Defense Secretary Robert S. McNamara, to President John F. Kennedy, Subject: ‘The Diffusion of Nuclear Weapons with and without a Test Ban Agreement’, 12 February 1963, Secret. Available at: <https://fas.org/man/eprint/dod1963.pdf>. Last accessed: September 07, 2018.

¹¹⁷ Cohen, A. & Frankel, B. ‘Opaque Nuclear Proliferation’, *Journal of Strategic Studies*, vol. 13, no. 3 (1990), p. 20.

proliferation for short-term politico-military/politico-industrial gains. Following China's successful nuclear test in 1964, however, the two superpowers began to worry that other latent nuclear powers (most notably Western Germany) might go on to actually build the bomb.¹¹⁸ They feared that further spread of nuclear weapons would not only increase the risk of deliberate or accidental nuclear war, but also endanger their global standings as superpowers. Indeed, the drive to reduce the scope for nuclear crises and uphold the structural distribution of power led to the situation where "by the mid-1960s, the goal of non-proliferation at times made the Soviets and Americans less ideological rivals than realistic partners in what often appeared to be a concert or condominium".¹¹⁹ Their shared outlook on nuclear proliferation paved the way to the 1963 Partial Test Ban Treaty (PTBT) and eventually lead to the drafting of the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

The NPT divided states into two categories: nuclear-weapon states (NWS) and non-nuclear weapon states (NNWS). NWS status was restricted to nations that managed to manufacture and detonate a nuclear device before 1 January 1967 (i.e., the United States, the Soviet Union, Britain, France, and China). Every other state that wished to accede to the treaty, had to do so as NNWS. Articles I and II of the NPT required that the NNWS agree not to develop or acquire nuclear arms, while the NWS agree not to share military nuclear technology. Article IX established that entry into force would require the NPT's ratification by the treaty's depositories (the United States, the Soviet Union, and Britain) and 40 additional states.

¹¹⁸ For a discussion of nuclear latency and its effects on nuclear proliferation, see Sagan, S. D. 'Nuclear latency and nuclear proliferation', in Potter, W. C. & Mukhatzhanova, G. (eds.), *Forecasting Nuclear Proliferation in the 21st Century: The Role of Theory* (Stanford, C.A.: Stanford University Press, 2010), pp. 80-101.

¹¹⁹ Gavin, F. J. 'Nuclear proliferation and non-proliferation during the cold war', in Leffler, M. P. & Westad, O. A. (eds.), *The Cambridge History of the Cold War, Volume II: Crises and Détente* (Cambridge: Cambridge University Press, 2010), p. 416.

But why would states give up their right to develop nukes and join the NPT as NNWS? In order to incentivize states to forgo nuclear weapons and join the NPT regime, the NWS employed three interest devices. First, just as in earlier attempts to create an international nuclear-control regime, the NWS offered to assist collaborating states in acquiring civilian nuclear technology and materials. Indeed, Article IV of the NPT protected the NNWS's "inalienable right... to develop research, production and use of nuclear energy for peaceful purposes without discrimination". However, to ensure that the provided nuclear know-how, technologies, and materials were used only for peaceful purposes, Article III required the NNWS to put their nuclear facilities under the international safeguards of the IAEA. Second, and this was new, in exchange for the agreement of the NNWS to forswear the pursuit of nuclear weapons, the NWS agreed to pursue nuclear disarmament. Article VI of the NPT committed the NWS "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control".¹²⁰ A third interest device used by the Cold War superpowers to enroll states into the NPT regime was the provision of extended nuclear deterrence to close allies that did not possess nukes. As Jan Ruzicka put it:

If the individual member states of the respective alliance blocs, with the exception of the United Kingdom and France in the NATO alliance, were not allowed to possess their own nuclear capacity, how was their security to be ensured in the nuclear world? The promise to defend one's allies by the nuclear means, the so-called nuclear umbrella, provided reassurance they asked for in the face of a nuclear threat posed by the other side.¹²¹

¹²⁰ 'Treaty on the Non-Proliferation of Nuclear Weapons (NPT)', 01 July 1968. Available at: <https://www.un.org/disarmament/wmd/nuclear/npt/text>. Last accessed: September 07, 2018.

¹²¹ Ruzicka, J. 'Behind the veil of good intentions: power analysis of the nuclear non-proliferation regime', *International Politics*, vol. 55, no. 3-4 (2018), p. 375.

The NPT was a complete success. On 5 March 1970, less than two years after it opened for signature, the treaty entered into force with 43 parties. Five years later, by the time of the first NPT Review Conference in 1975, the NPT counted 96 signatories, including West Germany, the state whose non-proliferation commitment the two superpowers had been most anxious to lock in. Indeed, with 191 signatories, the NPT has currently the largest number of members of any arms control and disarmament agreement, which, according to the U.N. Office for Disarmament Affairs (UNODA), is “a testament to the Treaty’s significance”.¹²²

2.2 The Failure of Translation: Human and Non-human Resistance Against the Global Nuclear Nonproliferation Regime

Interessement achieves enrolment if it is successful and completes the process of translation. However, as I have discussed in the previous chapter, actors enlisted by the problematizations of network-builders and targeted by their interessement devices can submit to being integrated into the network, or inversely, refuse the transaction by defining their identity, their goals, projects, orientations, motivations or interests in another manner.¹²³ As Jacqueline Best and William Walters put it, translation is an inherently contentious and uncertain process as it depends “upon the agency of human and non-human others, an agency which is often truculent, recalcitrant, crafty, and self-interested”.¹²⁴ This is especially true for the field of international relations, “which is marked by enduring blockages and intransigent obstacles, zones in which translation is contested,

¹²² United Nations Office of Disarmament Affairs (UNODA), ‘Treaty on the Non-Proliferation of Nuclear Weapons (NPT)’. Available at: <https://www.un.org/disarmament/wmd/nuclear/npt/>. Last accessed: September 07, 2018.

¹²³ See Callon, M. ‘Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay’, *The Sociological Review*, vol. 32, no. 1 (1984), p. 207.

¹²⁴ Best, J. & Walters, W. ‘Actor-Network Theory and International Relationality: Lost (and Found) in Translation’, *International Political Sociology*, vol. 7, no. 3 (2013), p. 333.

ambiguous and problematic”.¹²⁵ The field of nuclear non-proliferation is no exception. In the following, I examine why and how (human and non-human) actors resisted being (fully) integrated into the global nuclear nonproliferation regime.

2.2.1 Human Resistance

As mentioned above, the NPT is the most successful arms control and disarmament treaty ever in terms of membership size. However, there are three states that have never signed the treaty: India, Pakistan, and Israel. While the former two condemned the NPT’s discriminatory nature, the latter criticized its inadequacies in enforcing effective control in the context of a regional conflict.¹²⁶ All three nations eventually decided to go for the bomb in order to enhance their national security through nuclear deterrence. In the next chapter, I discuss in detail why the interest devices outlined above did not work in the case of Israel and how Israel managed to develop nukes outside of the NPT. In this section, I would like to briefly discuss another form of resistance against the nuclear nonproliferation regime, which comes from within the regime. As discussed in chapter one, the success of translations depends not only on the ability of network-builders to persuade prospective members to enroll in the network, but also (or primarily) to make sure that they remain in the network.

Indeed, the main problem of the NWS has never been to persuade each and every state to join the NPT regime, but rather to convince those that had already enrolled to remain in the regime. As explained above, to work fully, the NPT relies on keeping a crucial bargain: NNWS agree never

¹²⁵ Barry, A. ‘The Translation Zone: Between Actor-Network Theory and International Relations’, *Millennium: Journal of International Studies*, vol. 41, no. 3 (2013), p. 429.

¹²⁶ Cohen & Frankel, ‘Opaque Nuclear Proliferation’, pp. 16-17.

to acquire nuclear weapons, while the NWS agree to share the benefits of peaceful nuclear technology and pursue nuclear disarmament with the ultimate aim of eliminating them. This logic has been reiterated by U.S. President Barak H. Obama in 2009 when he stated that, “The basic bargain is sound: Countries with nuclear weapons will move towards disarmament, countries without nuclear weapons will not acquire them, and all countries can access peaceful nuclear energy”.¹²⁷ Nevertheless, despite their obligations under the NPT and their repeated rhetorical commitments to nuclear disarmament, the NWS have not moved genuinely and significantly in the direction of nuclear abolition. While it is true that the overall number of nuclear weapons in the world has decreased significantly since the end of the Cold War, the technological or qualitative nuclear arms race continues unabated. All NWS are currently modernizing and significantly upgrading their nuclear forces (i.e. increasing the effectiveness of nukes and their delivery vehicles to destroy targets). The United States, for example, is expected to spend \$1.2 trillion between 2017-2046 to modernize its nuclear arsenal, delivery systems, and supporting infrastructure.¹²⁸ However, these long-term modernization programs are fundamentally at odds with the legal commitment to reduce and eventually eliminate nuclear weapons. To the contrary, they appear intended to prolong the nuclear era indefinitely.

The result has been growing dissatisfaction among NNWS about the failure of the NWS to live up to their end of the bargain, which has led to recurrent acrimonious collisions over Article VI at NPT review conferences. According to Ruzicka, “the increasing institutionalization of non-

¹²⁷ Obama, B. H. ‘Remarks by President Barack Obama’, 05 April 2009, np. Available at: <https://obamawhitehouse.archives.gov/the-press-office/remarks-president-barack-obama-prague-delivered>. Last accessed: September 09, 2018.

¹²⁸ Congressional Budget Office, ‘Approaches for Managing the Costs of U.S. Nuclear Forces, 2017 to 2046’, October 2017, p. 1. Available at: <https://www.cbo.gov/system/files?file=115th-congress-2017-2018/reports/53211-nuclearforces.pdf>. Last accessed: September 09, 2018.

proliferation meetings as an endless process, itself part of the wider nonproliferation complex, has played an important role in neutralizing much of this critique”. “Such meetings”, Ruzicka argues, “provide opportunities [for NNWS] to vent spleen, rather than achieving much in terms of tangible results on... disarmament”.¹²⁹ Nuclear experts warn, however, that the NWS cannot play this game forever. As Steven Miller and Scott Sagan put it:

If nuclear weapons remain the currency of the realm, if they are the ticket to the high table of international politics, if they are believed to confer enormous diplomatic and security benefits, if the existing NWS insist on the necessity to retain their nuclear weapons for the indefinite future, then it will be very difficult over the long run to make the case that for all other states nuclear weapons are unnecessary and undesirable.¹³⁰

The first and thus far only nation to drop out of the NPT and develop nukes for some of the reasons mentioned by Miller and Sagan was North Korea in 2003.¹³¹

2.2.2 Non-Human Resistance

As discussed in chapter one, the ANT perspective adopted in this chapter insists that notions of agency are not confined to human subjects, but embrace objects, machines, devices, materials, animals and other non-human entities that both enable and constrain human activity, including attempts at translation. In this section, I briefly examine how the inherently dual-use nature of key nuclear technologies and materials constrains global attempts to develop a nuclear-control regime

¹²⁹ Ruzicka, ‘Behind the veil of good intentions’, p. 11.

¹³⁰ Miller & Sagan, ‘Nuclear power without nuclear proliferation?’, p. 13. For similar critiques, see Craig, C. & Ruzicka, J. ‘The Nonproliferation Complex’, *Ethics & International Affairs*, vol. 27, no. 3 (2013), pp. 329-48; Harrington de Santana, A. ‘Nuclear Weapons as the Currency of Power’, *The Nonproliferation Review*, vol. 16, no. 3 (2009), pp. 325-45; Harrington de Santana, A. ‘The Strategy of Non-proliferation: Maintaining the Credibility of an Incredible Pledge to Disarm’, *Millennium: Journal of International Studies*, vol. 40, no. 1 (2011), pp. 3-19; and Tannenwald, N. ‘Justice and Fairness in the Nuclear Nonproliferation Regime’, *Ethics & International Affairs*, vol. 27, no. 3 (2013), pp. 299-317.

¹³¹ See Tisdall, S. ‘How the nuclear-armed nations brought the North Korea crisis on themselves’, *The Guardian*, 05 September 2017. Available at: <https://www.theguardian.com/world/2017/sep/05/nuclear-armed-nations-brought-the-north-korea-crisis-on-themselves>. Last accessed: September 09, 2018.

that would prevent the use of atomic energy for destructive purposes while, simultaneously, promoting the use of it for constructive ends.

All nuclear programs, whether civilian or military, depend on uranium, a slightly radioactive metal that occurs naturally in a large variety of minerals and in seawater. Natural uranium is made up almost entirely of two isotopes: 99.3 % uranium-238 (U-238) and 0,7 % uranium-235 (U-235), which is slightly lighter than U-238. Only the lighter isotope, U-235, is capable of sustaining a nuclear fission chain reaction, the process by which energy is produced in a nuclear reactor or nuclear bomb. However, the concentration of U-235 in natural uranium is too low to produce the supercritical mass needed to generate a chain reaction in a nuclear reactor/bomb. Therefore, the concentration of U-235 in uranium needs to be increased through a process called ‘enrichment’.¹³² The extent of the enrichment depends on the purpose for which the uranium is needed. For most kinds of nuclear power reactors, the concentration of U-235 in uranium needs to be increased from 0.7% to about 4%. For use in a nuclear weapon, the U-235 content of uranium needs to be enriched to a minimum of 90%.¹³³

Today, there are 14 countries with uranium enrichment facilities. Of these, 6 are NPT-recognized NNWS: Argentina, Brazil, Germany, Iran, Japan, and the Netherlands.¹³⁴ The accepted international limit for uranium enrichment that distinguishes military from civil use is 20%. However, as Anne Harington and Matthias Englert point out, once a state reaches the 20%

¹³² See World Nuclear Association, ‘Uranium Enrichment’, last updated on February 2019. Available at: <http://www.world-nuclear.org/information-library/nuclear-fuel-cycle/conversion-enrichment-and-fabrication/uranium-enrichment.aspx>. Last accessed: January 12, 2019.

¹³³ Barnaby, F. *How to Build A Nuclear Bomb and Other Weapons of Mass Destruction* (New York: Nation Books, 2004), p. 73.

¹³⁴ See International Panel on Fissile Materials, ‘Facilities: Uranium enrichment’, last updated on January 2016. Available at: http://fissilematerials.org/facilities/uranium_enrichment.html. Last accessed: January 05, 2019.

threshold, “it has completed roughly two thirds of the work necessary to reach the minimum level for weapons-grade material: 90% U-235”.¹³⁵ According to Harrington and Englert, “there are almost no technical hurdles to convert a declared [enrichment] facility designed for civilian operation for military purposes”.¹³⁶ In addition to using a declared facility covertly to produce weapons-grade uranium, Harrington and Englert argue, a country could also break-out and leave the NPT and use its facilities as it likes. Indeed, the NPT contains an ‘escape clause’, enabling any state to withdraw from the treaty upon three months’ notice.¹³⁷

However, uranium enrichment is not the only dual-use nuclear technology. Nuclear power reactors can also be used to produce weapon-grade materials. The spent fuel of a power reactor still contains about 96% of its original uranium, of which the U-235 content has been reduced to less than 1%. About 3% of the used fuel comprises waste products and the remaining 1% is plutonium. As Frank Barnaby explains, “Plutonium results when U-238 absorbs some of the neutrons produced in the fission process, to become the isotope uranium-239. Uranium-239 is radioactive and decays to plutonium-239 [(Pu-239)]”.¹³⁸ Like U-235, Pu-239 is capable of sustaining the uncontrolled chain reaction used to generate energy in a nuclear weapon.

Thus, there are two technological pathways to the bomb: uranium enrichment and plutonium production. Power reactors using uranium fuel bring a country closer to the plutonium bomb. However, in order to recover the plutonium from spent nuclear fuel, a country also needs a

¹³⁵ Harrington, A. & Englert, M. ‘How Much Is Enough? The Politics of Technology and Weaponless Nuclear Deterrence’, in Mayer, M. et. al (eds.), *The Global Politics of Science and Technology – Vol. 2: Perspectives, Cases and Methods* (Berlin: Springer, 2014), p. 295.

¹³⁶ *Ibid.*, p. 297.

¹³⁷ See ‘Treaty on the Non-Proliferation of Nuclear Weapons (NPT)’, Article X, Paragraph 1.

¹³⁸ Barnaby, *How to Build A Nuclear Bomb and Other WMD*, p. 77.

reprocessing (or separation) plant. A reprocessing plant chemically separates the plutonium from the uranium and waste products. The most common method used in reprocessing plants today is the PUREX (Plutonium and Uranium Recovery by EXtraction) process in which tributyl phosphate and kerosene are used to separate waste products from the plutonium and uranium. Like uranium enrichment, reprocessing technology is inherently dual-use because the recovered plutonium can also be recycled and used as fresh fuel in a power reactor.¹³⁹

Thus, the inherently dual-use nature of key nuclear technologies and materials undermines the NPT regimes desire to draw a firm line between civilian and military nuclear programs.¹⁴⁰ As Joseph Pilat put it:

Any use of nuclear energy to produce electricity or for medical or industrial purposes [will]... create a military capability. This dual nature of the atom [means] that most applications of nuclear science create nuclear latency, which can be viewed as the possession of most or all of the technologies, facilities, materials, expertise (including tacit knowledge), resources and other capabilities necessary for the development of nuclear weapons, without full operational weaponization.¹⁴¹

Former IAEA Director General Mohammed ElBaradei refers to states with such a capability as ‘virtual nuclear weapon states’ (VNWSs). A VNWS is a state that has mastered the technological processes for the production of U-235 and/or Pu-239, but refrains from actually creating a weapon. This allows the VNWS to meet its treaty obligations but gives it the capability to develop a bomb

¹³⁹ See World Nuclear Association, ‘Processing of Used Nuclear Fuel’, last updated on June 2018. Available at: <http://www.world-nuclear.org/information-library/nuclear-fuel-cycle/fuel-recycling/processing-of-used-nuclear-fuel.aspx>. Last accessed: January 12, 2019.

¹⁴⁰ In this chapter I have discussed only the most proliferation-sensitive dual-use nuclear technologies and materials. For an in-depth discussion of the dual-use problem, see Acton, J. M. ‘On the Regulation of Dual-Use Nuclear Technology’, in Harris, E. D. (ed.), *Governance of Dual-Use Technologies: Theory and Practice* (Cambridge, Mass.: American Academy of Arts & Sciences, 2016), pp. 8-59.

¹⁴¹ Pilat, J. F. ‘Nuclear Science and Technology: The Race Between Weapons and Control’, in Mayer, M. et. al (eds.), *The Global Politics of Science and Technology – Vol. 1: Concepts from International Relations and Other Disciplines* (Berlin: Springer, 2014), p. 56.

in a very short span of time. Japan is the prime example of a VNWS: it operates enrichment facilities and reprocessing plants, has produced approximately 44 tons of plutonium and 1.2 tons of enriched uranium, and has the technical capability to manufacture a nuclear device within six months.¹⁴² According to ElBaradei, Iran is also close to acquiring a virtual nuclear capability. However, he warns that “this phenomenon goes much beyond Iran. Pretty soon... you will have nine weapons states and probably another 10 or 20 virtual weapons states”.¹⁴³

Article III of the NPT requires that each NNWS party to the NPT signs a Comprehensive Safeguards Agreement (CAS) with the IAEA. A CSA gives the IAEA the authority to independently verify that no fissile material (i.e., U-235 or Pu-239) in the territory or jurisdictional control of a NNWS is diverted for military purposes. To do this, the IAEA applies a series of technical measures, ranging from “cameras at certain positions, to the visit of inspectors to take probes and samples, count and weigh materials, tag and seal containers or conduct other visual inspections”.¹⁴⁴ It is important to note, however, that these measures are not designed to prevent a state from going nuclear, but rather to provide timely warning of noncompliance. However, in the case of a VNWS this is better said than done. As Albert Wohlstetter and his coauthors famously warned:

If, in fact, technological transfers can bring a “nonnuclear weapons state” within weeks, days or even hours of the ability to use a nuclear explosive, [then] in the operational sense that “nonnuclear weapon state” will have nuclear weapons. The point is even more fundamental than the fact that effective safeguards [according to the IAEA] mean timely warning. A necessary condition for timely warning is

¹⁴² See, Windrem, R. ‘Japan Has “Nuclear Bomb in the Basement,” and China Isn’t Happy’, *NBC News*, 11 March 2014. Available at: <https://www.nbcnews.com/storyline/fukushima-anniversary/japan-has-nuclear-bomb-basement-china-isnt-happy-n48976>. Last accessed: February 05, 2019.

¹⁴³ Quoted in Borger, J. ‘Mohammed ElBaradei warns of new nuclear age’, *The Guardian*, 14 May 2009. Available at: <https://www.theguardian.com/world/2009/may/14/elbaradei-nuclear-weapons-states-un>. Last accessed: February 05, 2019.

¹⁴⁴ Harrington & Englert, ‘How Much Is Enough?’, p. 293.

that there be a substantial elapsed time. But if there is no substantial elapsed time before a government may use nuclear weapons, [then] in effect it has them.¹⁴⁵

Indeed, ElBaradei admitted in September 2006 that “verifying enrichment facilities or reprocessing facilities is quite difficult and the so-called conversion time is very short”.¹⁴⁶

However, a VNWS does not necessarily have to cross the nuclear threshold to enjoy the deterrent effects of nuclear weapons. As Wohlstetter et al. explain, “Consider the case of a government which is not at war, but is capable of quickly assembling a nuclear device to use or threaten to use against another government... Once again, there is no practical difference between the coercion it could use or the threat it could execute from what a nuclear power might manage”.¹⁴⁷ Thus, a VNWS can be in compliance with its commitment as a NNWS under the NPT and simultaneously be maintaining a ‘weaponless nuclear deterrent’.¹⁴⁸ Japan, which has been using its national plutonium and uranium stockpiles as a deterrent against regional adversaries like China and North Korea, is a good example of such a VNWS.¹⁴⁹

Thus, the inherently dual-use nature of key nuclear technologies and materials constrains the NWSs attempts to develop a global nuclear-control regime that would prevent the use of atomic energy for destructive purposes while, simultaneously, promoting the use of it for constructive

¹⁴⁵ Wohlstetter, A., Jones, G., & Wohlstetter, R. ‘Why the rules have needed changing’, in Wohlstetter, A. (ed.), *Towards a New Consensus on Nuclear Technology*, Vol. 1 (Los Angeles, CA: Pan Heuristics, 1979), pp. 36-37.

¹⁴⁶ ElBaradei, M. ‘Addressing Verification Challenges’, Speech given at IAEA Symposium on International Safeguards, Vienna, Austria, 16 October 2006, np. Available at: <https://www.iaea.org/newscenter/statements/addressing-verification-challenges>. Last accessed: February 05, 2019.

¹⁴⁷ Wohlstetter et al., ‘Why the rules have needed changing’, p. 37.

¹⁴⁸ Harrington & Englert, ‘How Much Is Enough?’.

¹⁴⁹ See Windrem, ‘Japan Has “Nuclear Bomb in the Basement,” and China Isn’t Happy’. I am grateful to Akos Kopper for altering me to the phenomenon of VNWSs and the case of Japan.

ends. At the same time, however, dual-use nuclear technologies and materials give NNWS a range of available options to resist the regime.

2.2.3 The Violence of Translation: Compulsory Power in the NPT Regime and Its Limits

Interessement achieves enrolment if it is successful. But what if interessement fails? In one of the classic essays on ANT, Michel Callon reminds us that there are two fundamentally different ways through which actors are enrolled into networks: through (1) interessement (seduction, enticement, co-option, etc.) and through (2) “pure and simple force”.¹⁵⁰ Yet while violence is certainly recognized within some ANT scholarship as one of the spectrum of operations that may be used to build networks and enroll actors, it has a rather low profile compared with the more peaceful methods of interessement that feature in ANT tales. However, as I have argued in the previous chapter, if we want to translate ANT into the realm of international politics, we need to pay close attention to the potential violence of translation. This “is not a matter of juxtaposing ‘consensual’ versus ‘coercive’ mechanisms of enrollment and disenrollment, for they overlap in many ways. But it is a matter of better theorizing the full range of powers that are at play with any foray into the troubled waters of international life”.¹⁵¹

Indeed, it would be rather naïve and unsatisfactory to conclude that interessement is the only or even the predominant way through which states are enrolled into the non-proliferation regime. The use of compulsory power, understood as the threatened or actual deployment of violence, has been

¹⁵⁰ Callon, ‘Some elements of a sociology of translation’, p. 209.

¹⁵¹ Best, J. & Walters, W. ‘Translating the Sociology of Translation’, *International Political Sociology*, vol. 7, no. 3 (2013), p. 347.

indispensable in creating and sustaining the regime.¹⁵² Compulsory power has taken three main forms in the nuclear nonproliferation regime, ranging from economic sanctions, over to the pressures of coercive diplomacy, to outright military action. Each of these forms of compulsory power has at one point or another, and sometimes simultaneously, ensured that the NPT regime's dominant norm against the spread of nuclear weapons would be upheld.¹⁵³

In the case of Iran, for example, economic sanctions and coercive diplomacy made a decisive contribution to prevent that country from going nuclear. In 2003, the IAEA discovered that Iran had secretly engaged in sensitive enrichment activities. When the IAEA Board of Governors reported Iran to the UNSC, the Security Council demanded that Iran suspend its enrichment program and imposed sanctions after it refused to do so. These sanctions were accompanied by repeated threats of the use of military force, especially by the United States and Israel. "While the dispute was eventually resolved through negotiations culminating in the 2015 Joint Comprehensive Plan of Action (JCPOA, better known as the Iran nuclear deal), compulsory power, which put Iran under a considerable amount of pressure, was undoubtedly a crucial part of the diplomatic settlement".¹⁵⁴ Indeed, in the eyes of U.S. President Donald J. Trump, this pressure could have led to a "more constructive deal" with Iran, which is why he recently decided to pull out of the JCPOA and reimpose "the highest level of economic sanctions".¹⁵⁵

¹⁵² On compulsory power in international relations, see Barnett, M. & Duvall, R. 'Power in international politics', *International Organization*, vol. 59, no. 1 (2005), pp. 49-51.

¹⁵³ See Paul, T. V. 'Strengthening the Non-Proliferation Regime: The Role of Coercive Sanctions', *International Journal*, vol. 51, no. 3 (1996), pp. 440-65; and Ruzicka, 'Behind the veil of good intentions', pp. 374-77.

¹⁵⁴ Ruzicka, 'Behind the veil of good intentions', p. 375.

¹⁵⁵ Trump, D. J. 'Remarks by President Trump on the Joint Comprehensive Plan of Action', 08 May 2018, np. Available at: <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-joint-comprehensive-plan-action/>. Last accessed: September 10, 2018.

The first time the NPT regime used actual violence to enforce the nonproliferation norm was in 1991 against Iraq. On January 15, two days before an international coalition led by the United States struck a variety of military and government targets, then U.S. President George H.W. Bush raised the specter of the Iraqi pursuit of a nuclear capability as one justification for taking military action against Iraq.¹⁵⁶ In the aftermath of Iraq's defeat, the UNSC passed Resolution 687 which directed the IAEA to find and dismantle Iraq's clandestine nuclear weapons program, and ensure Iraqi compliance with the NPT through ongoing monitoring and verification. Between May 1991 and October 1997, the IAEA completed a series of 30 inspection campaigns and "supervised the destruction of more than fifty thousand square meters of nuclear facilities, approximately two thousand fuel cycle or weapons-related items, and more than six hundred metric tons of special alloys".¹⁵⁷ The IAEA continued to monitor Iraq's nuclear activities until late 1998, when Saddam Hussein announced that he would end all cooperation with the IAEA inspectors. The United States and Britain responded by bombing various Iraqi military sites that contributed to Iraq's ability to produce, store, maintain, and deliver Weapons of Mass Destruction (WMD). Following the bombings, however, Saddam Hussein would not agree to readmit the IAEA inspectors for four years. That absence laid the groundwork for suspicion that Saddam Hussein was reconstituting his nuclear weapons program—which, in turn, would form the pretext for the second Gulf War in 2003.¹⁵⁸ While no evidence that Iraq had reactivated its nuclear weapons program could be found, the example of military intervention in Iraq nudged Libya to negotiate the dismantlement of its embryonic nuclear weapons program in 2003.¹⁵⁹

¹⁵⁶ See The White House, National Security Directive 54, Subject: 'Responding to Iraqi Aggression in the Gulf', 15 January 1991, Top Secret. Available at: <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB39/document4.pdf>. Last accessed: September 10, 2018.

¹⁵⁷ ElBaradei, *The Age of Deception*, p. 69.

¹⁵⁸ See *Ibid.*, pp. 74-78.

¹⁵⁹ See Jentleson, B. W. & Whytock, C. A. 'Who "Won" Libya: The Force-Diplomacy Debate and its Implications for Theory and Policy', *International Security*, vol. 30, no. 3 (Winter 2005/06), pp. 47-86.

Nevertheless, the use of compulsory power in the field of nuclear non-proliferation has also limits, as the cases of Israel, India, Pakistan, and North Korea demonstrate. All four were able to hold on to their nuclear weapons programs, despite being targeted by different forms of compulsory power. They managed to evade (mostly American) pressure by relying on a combination of diplomacy and deceit. In the next chapter, I discuss in detail how Israel managed to resist different forms of compulsory power.

2.3 Conclusion

In order to incentivize states to forgo nuclear weapons and join the NPT as NNWS, the NWS employed three interestment devices: (1) they offered to assist collaborating states in acquiring civilian nuclear technology and materials; (2) they agreed to pursue nuclear disarmament; and (3) they offered extended nuclear deterrence to close allies that did not possess nukes. These interestment devices were largely successful: 191 states signed the NPT making it the most successful arms control and disarmament agreement ever. In three cases (Israel, India, and Pakistan), however, the NWS have failed to persuade states to enroll in the NPT regime. In the case of North Korea, the NWS failed to convince that state to remain in the regime; and in several other cases (e.g., Iran, Iraq, Syria, Libya, South Africa) the NWS managed to enroll states (or prevent them from leaving the regime) only through recourse to compulsory power in the form of (1) economic sanctions, (2) coercive diplomacy, and (3) military action. In the following chapter, I analyze in great detail why the interestment devices outlined above did not work in the case of Israel and how Israel managed to resist different forms of compulsory power and build a substantial nuclear arsenal outside of the NPT.

CHAPTER 3: THE EVOLUTION OF ISRAELI NUCLEAR CONDUCT: FROM NUCLEAR SECRECY TO NUCLEAR AMBIGUITY

Ambiguity is not a bomb, ambiguity is an attitude, and if the ones who want to destroy Israel have an ambiguous fear, it is ok. Then you don't need bombs.

– Shimon Peres, Israeli Prime Minister (1984-86/1995-96)¹⁶⁰

In this chapter, I examine why Israel decided to build nuclear weapons and how it has managed to do so. I am particularly interested in why the intercession devices outlined in the previous chapter did not work in the case of Israel and how Israel managed to resist different forms of compulsory power. The chapter is divided into three main parts. In part one, I examine the rationale behind Israel's nuclear weapons program, how the United States discovered the program, and how it reacted to this discovery. In part two, I investigate in detail how U.S. President John F. Kennedy tried to stop Israel's nuclear weapons program. The short Kennedy presidency is important from a nonproliferation perspective because Kennedy remains the only U.S. President who has used compulsory power to prevent Israel from crossing the nuclear-weapons threshold. In the last part, I examine why Israel adopted an ambiguous nuclear policy and discuss the value of such a policy vis-à-vis conventional nuclear deterrence.

¹⁶⁰ Quoted in Raska, M. 'Beyond the "Bomb in the Basement": Israel's Nuclear Predicament and Policy Options', *Asian Journal of Public Affairs*, vol. 1, no. 2 (2011), p. 22.

3.1 Israel's Security Dilemma and the Birth of the Israeli Nuclear Weapons Program

In this section, I examine the reasons behind Israel's decision to develop nuclear weapons, how the United States discovered Israel's nuclear weapons program, and how it reacted to this discovery.

3.1.1 The Rationale for the Bomb

According to Scott Sagan, states build nuclear weapons for three different, but sometimes interrelated reasons: (1) to increase national security against foreign threats; (2) to advance the parochial bureaucratic or political interests of at least some individual actors within the state; and (3) to serve symbolic functions reflecting leaders' perceptions of appropriate and modern behavior.¹⁶¹ The main reason Israel decided in the early 1950s to develop a nuclear weapons program was to increase national security through nuclear deterrence. However, the Israeli bomb has always been much more than a simple deterrent. From the very beginning, Israel's nuclear project constituted a link between two fundamental notions of the Zionist narrative: *Shoah* (Hebrew for Holocaust) and *Tekumah* (Hebrew for national revival).¹⁶²

In mid-October 1945, five months after Nazi Germany surrendered to the Allies, David Ben-Gurion, who later was to become Israel's first prime minister, visited the Berg-Belsen concentration camp near Hannover. For Ben-Gurion, who had spent the war years far away from Europe, witnessing the aftermath of the Holocaust first-hand was "stunning" and "heartbreaking".

¹⁶¹ Sagan, S. D. 'Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb', *International Security*, vol. 21, no. 3 (Winter 1996/97), pp. 54-86.

¹⁶² Cohen, A. *The Worst-Kept Secret: Israel's Bargain with the Bomb* (New York: Columbia University Press, 2010), p. 121.

Indeed, Yitzhak Navon, Ben-Gurion's closest aide, recalled that he "had never been able to free himself of the scenes he had witnessed in Germany in the autumn of 1945".¹⁶³ Speaking to a group of Holocaust survivors at Berg-Belsen concentration camp, Ben-Gurion contended that there was only one solution to the dire condition of the Jewish people: "Eretz Yisrael [Hebrew for the Land of Israel, what was then Palestine] as a Jewish center, which does not rely on others but builds its strength, its will and its independence".¹⁶⁴

To establish such a 'Jewish center', the Zionist movement, headed by Ben-Gurion, devised a plan (codenamed 'Plan D' (*Dalet* in Hebrew)) for the systematic expulsion of the indigenous Arab population of Palestine. "This plan", writes the Israeli historian Ilan Pappé, "was... the inevitable product of the Zionist ideological impulse to have an exclusively Jewish presence in Palestine".¹⁶⁵ On 10 March 1948, Jewish forces on the ground started implementing Plan D through "large-scale intimidation; laying siege to and bombarding villages and population centers; setting fire to homes, properties and goods; expulsion; demolition; and, finally, planting mines among the rubble to prevent any of the expelled inhabitants from returning".¹⁶⁶ On 15 May 1948, after Jewish forces succeeded in forcibly expelling almost a quarter of a million Palestinians, Israel declared independence. The ethnic cleansing of Palestine under Plan D continued for four more months and when it was over, "more than half of Palestine's native population, close to 800,000 people, had been uprooted, 531 villages had been destroyed, and eleven urban neighborhoods emptied of their inhabitants".¹⁶⁷ Thus, while the Zionist enterprise "was and is colonial in terms of its relationship

¹⁶³ Karpin, M. *The Bomb in the Basement: How Israel Went Nuclear and What That Means for the World* (New York: Simon & Schuster, 2007), p. 8.

¹⁶⁴ Quoted in *Ibid.*, p. 9.

¹⁶⁵ Pappé, I. *The Ethnic Cleansing of Palestine* (Oxford: Oneworld Publications, 2006), pp. xii-xiii.

¹⁶⁶ *Ibid.*, p. xii.

¹⁶⁷ *Ibid.*, p. xiii.

to the indigenous Arab population of Palestine,... Zionism *also* served as the national movement of the nascent Israeli polity being constructed at their expense”.¹⁶⁸

However, it turned out that the Israeli victory alone would not ensure the continued existence of the Jewish state. After the ethnic cleansing of Palestine (what Israelis refer to as Israel’s ‘War of Independence’ and Palestinians as the ‘catastrophe’ (*Nakba* in Arabic)), the newly-established state found itself surrendered by Arab states that vowed to take revenge and to ‘eliminate the Zionist entity’. This post-war security situation, together with fresh memories of the Holocaust, left Israeli leaders with a profound sense of insecurity. Ben-Gurion’s greatest concern following independence was the possibility that a unified coalition of Arab states could overwhelm Israel’s conventional forces. “What is Israel?”, he mused, “Only a small spot. One dot! How can it survive in this Arab world?”.¹⁶⁹ Ben-Gurion was convinced that as long as the Arabs thought they could destroy the Jewish state, there would be no peace and no recognition of Israel. He concluded that *only* ‘the Bomb’ would deter Arab states from efforts to destroy Israel and ensure that no other *Shoah* could ever happen again to the Jewish people, thus making it an instrument to guarantee *Tekumah*.¹⁷⁰

3.1.2 The Failure of Interestment

Nuclear research and development in Israel began immediately after statehood in 1948, when a Research and Planning Branch (RPB) was established within the Israeli Ministry of Defense. The

¹⁶⁸ Khalidi, R. *The Iron Cage: The Story of the Palestinian Struggle for Statehood* (Oxford: Oneworld Publications, 2007), p. XXXIV (emphasis in original).

¹⁶⁹ Quoted in Hersh, S. M. *The Samson Option: Israel’s Nuclear Arsenal and American Foreign Policy* (New York: Random House, 1991), p. 22.

¹⁷⁰ Cohen, *The Worst-Kept Secret*, p. 121.

RPB was charged with the task of determining how much uranium ore the Negev Desert's phosphate deposits contained. The RPB soon discovered that the Negev's phosphate deposits contained from 0.01% to 0.1% natural uranium, providing Israel with an estimated national reserve of 30,000-60,000 tons of uranium.¹⁷¹ A year later, in 1949, a Department of Isotope Research was established at the Weizmann Institute of Science, Israel's leading research institution in the natural and exact sciences. By 1953, the scientific team at Weizmann had developed the improved ion exchange mechanism for producing deuterium oxide (or 'heavy water', which is used as a coolant in nuclear reactors) as well as a more efficient method of extracting uranium from phosphate fields.¹⁷² A year later, a heavy water production facility became operational at Rehovot, about 20 kilometers south of Tel Aviv. Hence, by the mid-1950s, Israel was capable of producing two of the essential ingredients to manufacture nuclear weapons—uranium and heavy water—without foreign assistance. However, decision makers involved in Israel's nuclear weapons program soon realized that construction of the facilities that would turn these ingredients into weapon-grade materials would be impossible without help from outside.¹⁷³

To be sure, in 1955 Israel received a small research reactor from the United States. This was the one-megawatt, 'swimming pool-type' reactor which is still in operation at the Soreq Nuclear Research Center (SNRC) at Yavne, south of Tel Aviv. Israel acquired the Soreq reactor, officially known as Israel Research Reactor-1 (IRR-1), under the aegis of the Eisenhower administration's Atoms for Peace program. As discussed in the previous chapter, this initiative marked a change in the focus of U.S. non-proliferation policy from denial of information to promotion of the peaceful

¹⁷¹ See Cochran, E. S. 'Israel's Nuclear History', *Israel Affairs*, vol. 6, no. 3-4 (2000), pp. 130-31.

¹⁷² Hersh, *The Samson Option*, p. 19 & 31.

¹⁷³ See Hersh, *The Samson Option*, p. 37.

aspects of nuclear research. The assumption was that states, once supplied with American nuclear technology and nuclear fuel, would have no incentive or desire to develop nuclear weapons. In the case of Israel, however, this strategy turned out to be ineffective. While Israel was happy to receive its first nuclear reactor under Atoms for Peace, this agreement did nothing to alleviate Israeli fears of a coordinated Arab attack, which was the main driving force behind Israel's nuclear weapons program. Indeed, the historical record of the Israeli nuclear program reveals that Dr. Ernst David Bergmann, then Chairman of the Israel Atomic Energy Commission (IAEC), initially contemplated using the Atoms for Peace program to provide Israel with a much larger reactor that could be modified to produce weapons-grade plutonium. As Avner Cohen and William Burr explain:

Initially, the leaders of the [IAEC] thought that American assistance could be the starting point for a largely indigenous Israeli nuclear program. Consistent with this vision, during 1955-56, IAEC Chairman Bergmann tried to find out whether the United States would provide assistance to build a "real reactor"—that is, a 10 MW natural uranium/heavy water reactor—but also to provide 10 tons of heavy water. Bergman made a formal request in July 1956... In September the [U.S.] notified Israel that it could be done but only under the aegis of a new bilateral nuclear power agreement which would require a more rigorous safeguards agreement than the original 1955 bilateral research accord. When Israel asked why, it was told that "plutonium production capabilities" necessitated stricter controls. When it became apparent the United States would insist on strict safeguards, Israel dropped its probe altogether.¹⁷⁴

Thus, Israel was left with the Soreq reactor, which was practically useless for the production of weapons-grade nuclear materials. Another reactor was needed, and the Israelis knew where to get it from.

¹⁷⁴ Cohen & Burr, 'The U.S. Discovery of Israel's Secret Nuclear Project'.

3.1.3 The French Connection

The only country that came into question for this kind of request was France, which had already signed a formal agreement with Israel for cooperation in nuclear research in 1953. In 1957, France agreed to construct replicas of its Marcoule nuclear reactor and reprocessing plant (which were part of France's nuclear weapons program) in the Negev Desert near the southern Israeli town of Dimona.¹⁷⁵ Construction of the Dimona reactor, now officially known as Israel Research Reactor-2 (IRR-2), started in early 1958. This brings us to secrecy, because "Dimona is the story of the largest, most awesome and longest-held secret that Israel has ever generated".¹⁷⁶ Indeed, "Nothing comparable, or as secret", writes Seymour Hersh, "had been created since Los Alamos [the birthplace of the first atomic bomb]".¹⁷⁷ Secrecy was essential to shield and insulate the highly vulnerable Dimona project from hostile outsiders. The Israelis feared that revelation of Dimona could provoke a preemptive strike by the Arabs and/or create a regional nuclear arms race in the Middle East. However, Dimona was more than just an Israeli secret. France, fearing negative consequences for its own nuclear weapons project, conditioned cooperation on complete secrecy over its role.¹⁷⁸ Although the French-Israeli agreement concerning construction of the Dimona

¹⁷⁵ The most important study of the Israeli-French collaboration that led to the acquisition of the Dimona reactor by Israel is Péan, P. *Les Deux Bombes* (Paris: Fayard, 1982).

¹⁷⁶ Cohen, A. & Burr, W. 'How Israel Hid Its Secret Nuclear Weapons Program', *Politico Magazine*, 15 April 2015. Available at: <http://www.politico.com/magazine/story/2015/04/israel-nuclear-weapons-117014.html#.VVTP0pOQy8P>. Last accessed: May 15, 2017.

¹⁷⁷ Hersh, *The Samson Option*, p. 32.

¹⁷⁸ It is important to note that France was not the only external source of support for Israel's nuclear weapons program. Germany, Norway, the United Kingdom, Argentina, and South Africa have all in one way or the other, and in different degrees and forms, helped Israel in the construction of Dimona. See, Rühle, H. "'Aktion Geschäftsfreund" Wie Deutschland das israelische Nuklearwaffenprogramm finanziert hat ["Project business associate": How Germany financed the Israeli nuclear weapons program]', *Internationale Politik*, 04 June 2015. Available at: <https://zeitschrift-ip.dgap.org/de/ip-die-zeitschrift/themen/aktion-geschaeftsfreund>. Last accessed: May 05, 2017; Milhollin, G. 'Heavy Water Cheaters', *Foreign Policy*, no. 69 (Winter 1987-1988), pp. 100-19; Leigh, G. 'How the UK gave Israel the bomb', *The Guardian*, 04 August 2005. Available at: <https://www.theguardian.com/environment/2005/aug/04/energy.past>. Last accessed: May 05, 2017; Burr, W. & Cohen, A. 'Israel's Quest for Yellowcake: The Secret Argentina-Israel Connection, 1963-1966', *The Wilson Center*, 01 July 2013. Available at: <http://wilsoncenter.org/publication/israels-quest-for-yellowcake-the-secret-argentina-israel-connection-1963-1966>. Last accessed: May 05, 2017; Burr, W. & Cohen, A. 'The Vela Incident: South Atlantic Mystery Flash in September 1979 Raised Questions about Nuclear Test', *National Security Archive*

nuclear reactor and reprocessing plant remains top secret, some idea of its scope was suggested by Francis Perrin, French High-Commissioner for Atomic Energy from 1951 to 1970, when he stated:

In 1957 we agreed to build a reactor and a chemical [reprocessing] plant for the production of plutonium. We wanted to help Israel. We knew the plutonium could be used for a bomb but we considered also that it could be used for peaceful purposes. It was kept a secret because of the Americans. We had an agreement with them whereby French scientists connected with work on nuclear weapons in Canada (during World War II) could return to France and use their knowledge, but only on condition the secrets would be kept. We considered we could give the secrets to Israel provided they kept them to themselves.¹⁷⁹

Hence, the secrecy surrounding Dimona was aimed *primarily* at the United States and the (embryonic) nuclear nonproliferation regime. As Avner Cohen and William Burr put it:

Of all the powers, Washington posed the greatest threat [to Israel's nuclear weapons program]. Since the time of the Baruch Plan in 1946, the U.S. was on the record as an opponent of the spread of nuclear weapons. Moreover, Washington helped create the International Atomic Energy Agency (IAEA) in 1957, the very same year the French-Israeli deal was signed, and since then it had promoted the establishment of an international safeguards system. Should the Dimona secret have been compromised, the U.S. would have likely exercised pressure on France and Israel either to terminate the project altogether or at least to submit it to international safeguards.¹⁸⁰

3.1.4 The American Connection

However, it would take more than two years for the U.S. intelligence community to identify the Dimona site for what it was, namely, a nuclear-reactor site under construction.¹⁸¹ But why did the American intelligence community fail to detect Dimona earlier? This is a crucial question because “Had the United States discovered Dimona two years earlier—even a year earlier—the young and

Electronic Briefing Book No. 570, 08 December 2016, Available at: <http://nsarchive.gwu.edu/nukevault/ebb570-The-22-September-1979-Vela-Satellite-Incident/>. Last accessed: May 05, 2017.

¹⁷⁹ Quoted in Cochran, ‘Israel’s Nuclear History’, p. 136.

¹⁸⁰ Cohen & Burr, ‘How Israel Hid Its Secret Nuclear Weapons Program’.

¹⁸¹ When I refer to the U.S. intelligence community, I mean not only the Central Intelligence Agency, but also intelligence offices of the U.S. Atomic Energy Commission, the Department of State, and the armed services, all of which played a role in collecting and/or analyzing information about Israel’s nuclear program.

fragile undertaking might not have survived the weight of U.S. and world pressure generally”.¹⁸² In response to the this intelligence blunder, the U.S. Intelligence Board (USIB) asked on 13 December 1960 the U.S. Joint Atomic Energy Intelligence Committee to prepare a “detailed post-mortem report on why the intelligence community did not recognize this development [Dimona] earlier”. The USIB post-mortem concluded in late January 1961 that the United States might have seen through Israeli “secrecy or deception” and better understood Israel’s intentions at least a year earlier if the “atomic energy intelligence community had properly interpreted information available on Israeli reactor plans and promptly and persistently sought additional information”.¹⁸³

Indeed, through U-2 aerial reconnaissance flights, the Central Intelligence Agency (CIA) detected already in early-mid 1958 what looked almost certainly to be a nuclear reactor being built at Dimona. Dino A. Brugioni, then imagery analyst at the CIA’s Photographic Intelligence Division, recalled seeing the first signs of what would become Israel’s nuclear reactor. “We spotted it right away”, Brugioni said. “What the hell was that big of a plant, with reinforced concrete, doing there in the middle of the desert?”.¹⁸⁴ Thus, as discussed in chapter one, logics of secrecy are often contradicted by their material implementations because “there are no such things as invisible factories, airplanes made out of unearthly ghost-matter, or workers who ‘don’t exist’”.¹⁸⁵ Although the Dimona reactor was far from being finished, the CIA’s experienced photo analysts, who had visited various nuclear facilities in the United States, were convinced that what they saw on the pictures was a nuclear-reactor site under construction. According to Brugioni, the deep digging

¹⁸² Cohen & Burr, ‘How Israel Hid Its Secret Nuclear Weapons Program’.

¹⁸³ U.S. Joint Atomic Energy Intelligence Commission, ‘Post-Mortem on SNIE 100-8-60: Implications of the Acquisition by Israel of a Nuclear Weapons Capability’, 31 January 1961, p. 2. Available at: <http://digitalarchive.wilsoncenter.org/document/121959>. Last accessed: April 11, 2018.

¹⁸⁴ Quoted in Hersh, *The Samson Option*, p. 52.

¹⁸⁵ Paglen, T. ‘Goatsucker: toward a spatial theory of state secrecy’, *Environment and Planning D: Society and Space*, vol. 28 (2010), p. 760.

and pouring of large amounts of cement were major clues that Israel was building a nuclear plant. “Whenever you build something nuclear”, Brugioni said, “you build it thick and deep. They were pouring a hell of a lot of concrete. We knew they were going deep”.¹⁸⁶

In late 1958 or early 1959,¹⁸⁷ Arthur C. Lundahl, then Director of the CIA’s Photographic Intelligence Division, rushed early raw photographs of the Dimona construction site to the White House, expecting urgent demands from the Eisenhower administration for further intelligence. “[But] there was no additional requirement. No request for details”, recalled Lundahl. In fact, added Lundahl, over the next years, “nobody came back to me, *ever*, on Israel. I was never asked to do a follow-up on any of the Israeli briefings”.¹⁸⁸ But no one told him not to do so, and so the U-2 spy planes continued to overfly the Dimona construction site. “We kept on watching it. We saw it going up”, Brugioni recalled. “The White House”, he confirmed, “never encouraged us to do further briefings. It was always ‘Thank you,’ and ‘This isn’t going to be disseminated, is it?’ It was that attitude”.¹⁸⁹ Lundahl and Brugioni “were left with the impression that Eisenhower [and his advisers] wanted Israel to acquire nuclear weapons”.¹⁹⁰

However, the U-2 data was not the only source of information regarding Israel’s nuclear weapons program. On 15 April 1958, diplomats at the U.S. embassy in Tel Aviv learned from a conversation with Dr. Bergmann, then chairman of the IAEC, that the principal decision to build a “power reactor had already been taken” by the Israeli government; however, “it would take at least two

¹⁸⁶ Quoted in Hersh, *The Samson Option*, p. 53.

¹⁸⁷ Seymour Hersh, who interviewed the CIA photo intelligence experts quoted in this chapter, writes that “the lack of any written notes or documents inevitably made it difficult for [the experts] to recall the dates of specific events... The dates cited herein are reasonable approximations, based on all the available data”. *Ibid.*, p. 53.

¹⁸⁸ Quoted in *Ibid.*, p. 54 (emphasis in original).

¹⁸⁹ Quoted in *Ibid.*, p. 55.

¹⁹⁰ Cohen, A. *Israel and the Bomb* (New York: Columbia University Press, 1998), p. 83.

and a half years to construct the experimental reactor now contemplated, and five to seven years before a large, economically feasible reactor could be put into operation”.¹⁹¹ Second Secretary of Embassy Lewis Townsend immediately forwarded this information to the State Department, but there is no record that someone followed up on it.¹⁹² The next year, on 15 June 1959, a report from the U.S. embassy in Oslo indicating that Norway was secretly selling heavy water (a key ingredient for the production of nukes) to Israel reached mid-levels of the U.S. Atomic Energy Commission (USAEC) and the State Department. Yet, neither Agency disseminated this crucial piece of information to the U.S. intelligence community until 13 December 1960. Likewise, when the CIA found out about the sale in April 1960, it apparently failed to circulate this information throughout the U.S. intelligence community.¹⁹³

Why these 1958 and 1959 reports were buried in obscurity at the time remains unknown. The USIB’s post-mortem investigation on why the U.S. intelligence community discovered Dimona two years late treated the missed opportunities as unfortunate but innocent errors. However, Avner Cohen, the leading historian of the Israeli nuclear program, argues in a recent article that during interviews he conducted in the 1990s for his seminal book, *Israel and the Bomb*, he heard from different people that “certain officials” in the State Department, the USAEC, the CIA, and other U.S. agencies “were sympathetic to the Israelis and deliberately concealed or bypassed certain information instead of passing it along”. For example, writes Cohen, “the late John Hadden, the CIA station chief in Tel Aviv from 1964-68, held that view strongly. He asked me to treat his

¹⁹¹ U.S. Embassy Tel Aviv, Dispatch No. 652 to State Department, Subject: ‘Israeli Exchanges With Other Countries Relating to Atomic Energy’, 16 April 1958, Confidential. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%201B.pdf>. Last accessed: April 28, 2018.

¹⁹² See USIB, ‘Post-Mortem on SNIE 100-8-60’, pp. 9-10.

¹⁹³ Ibid., p. 11.

suspicions with discretion so I did not publicize them when he was alive”.¹⁹⁴ The investigative journalist Seymour Hersh makes a similar point, arguing that Lewis L. Strauss, chairman of the USAEC and special adviser on atomic matters to President Eisenhower, “knew as much about Dimona as anybody in the intelligence community by the time he left the USAEC in 1958. There is no evidence, however, that he raised questions about the Israeli weapons program while in government; nor was he known to have ever discussed Dimona after leaving office. He most certainly did not tell McCone [his successor] about it”. Indeed, Brugioni, who briefed Strauss regularly on U-2 nuclear intelligence, found Strauss inscrutable when it came to information about Dimona: “I never knew what he was thinking; never understood him. I’d get the reaction ‘That’s all right’”.¹⁹⁵ According to Hersh, Strauss “chose not to talk about the Israeli nuclear program because, as a Jew with deep feelings about the Holocaust, he approved of it”.¹⁹⁶ “Similar choices”, writes Hersh, “were made over the next thirty years by Jews and non-Jews in the American government, who looked the other way when it came to Dimona”.¹⁹⁷ Hence, according to Hersh, the issue of ‘dual loyalty’,¹⁹⁸ exemplified by Strauss’s actions, was not just a Jewish problem:

The Jewish survivors who became Israelis, with their incredible travails and sufferings during World War II, had and still have enormous appeal to Americans of all backgrounds. The primary effect of ‘dual loyalty’ has been a form of self-censorship that has kept the United States government from dealing rationally and coherently with the strategic and political issues raised by a nuclear-armed Israel.¹⁹⁹

¹⁹⁴ Cohen, A. & Burr, W. ‘The U.S. Discovery of Israel’s Secret Nuclear Project’, *National Security Archive Electronic Briefing Book No. 510*, 15 April 2015, note 5. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/>. Last accessed: April 28, 2018.

¹⁹⁵ Hersh, *The Samson Option*, p. 90.

¹⁹⁶ *Ibid.*, p. 83.

¹⁹⁷ *Ibid.*, p. 91.

¹⁹⁸ On dual-loyalty in the Israeli-American context, see Mearsheimer, J. J. & Walt, S. M. *The Israel Lobby and U.S. Foreign Policy* (New York: Farrar, 2007), pp. 146-50.

¹⁹⁹ Hersh, *The Samson Option*, p. 90.

Within the U.S. intelligence community, Brugioni argues, “The attitude was ‘You had to protect Israel’, and anybody who did not suffered”.²⁰⁰

3.1.5 No Longer a Secret

Under the cover of ‘certain officials’ within the U.S. intelligence community, construction at Dimona continued unabated throughout 1958 and 1959. By early 1960, the Dimona reactor was taking shape as more and more French engineers and technicians were arriving in Beersheba, a city in the Negev Desert not far from the Dimona construction site. Ian Smart, then diplomat at the British embassy in Tel Aviv, recalled that “There was a lot of talk by the end of 1960 about Dimona prompted, for one thing, by the sheer progress of the site. It was already very apparent on the skyline. And from the road you could see the cooling tower base of the [reactor] dome and the beginning of the rib structure”. Secondly, Smart said, “there was the French presence in Beersheba. There was an apartment block they used with a lot of Renault Dauphins about—all carrying French registration”.²⁰¹ As Hersh put it, “hundreds of imported technicians, engineers, wives, children, mistresses, and cars turned a quiet corner of the Negev desert in a French boom town”.²⁰²

All of this was duly reported by diplomats and other foreign government officials assigned to various embassies in Tel Aviv. In early-mid 1960, for example, a secretary with the U.S. embassy in Tel Aviv reported to her Department of State supervisor “that she had visited Beersheba with an Israeli boyfriend who told her the French were building a reactor. She met through him a number of French families in Beersheba and was told at the time the matter was being kept a secret”.²⁰³

²⁰⁰ Quoted in *Ibid.*, p. 90.

²⁰¹ Quoted in *Ibid.*, p. 63.

²⁰² *Ibid.*, p. 46.

²⁰³ USIB, ‘Post-Mortem on SNIE 100-8-60’, p. 12.

Smart too was repeatedly reporting his suspicion that “this [the Dimona reactor] looked like a nuclear reactor”.²⁰⁴ Thus, the increased visibility of the nearly completed Dimona reactor and the French presence in the Negev turned Israel’s secret nuclear program into an ‘open secret’, “that which everybody unofficially knows or suspects, but proof (and therefore knowledge) of which remains elusive”.²⁰⁵ In other words, if Israel’s nuclear weapons program at the start of its existence was a good example of an *arcanum*—no one knew that it existed—since mid-1960 it has become a *secretum*: a constant source of suspicion and speculation.

Indeed, at the end, it was rumors and hearsay evidence like the above that prompted the U.S. intelligence community to focus intensely on finding out what exactly was going on at the Dimona construction site. In late July 1960, David Anderson, an employee of American Machine and Foundry Atomic (the company that built the Atoms-for-Peace reactor) informed U.S. embassy officials that he had heard that French scientists were constructing “a 60 megawatt atomic power reactor” in the Beersheba area. Anderson stated that this was his impression, gained from conversations with Daniel Kimhi, the director of an Israeli oil company. According to Kimhi, French construction workers and scientists were working on a project described to him as a “gas cooled power reactor capable of producing approximately 60 megawatts of electrical power”. Anderson’s understanding was that the project had been underway for “about two years,” with the completion date two years off.²⁰⁶ However, according to the USIB post-mortem, it took the CIA three months to obtain “adequate confirmatory evidence” because apparently there were no

²⁰⁴ Quoted in Hersh, *The Samson Option*, p. 63.

²⁰⁵ Birchall, C. ‘Aesthetics of the Secret’, *New Formations*, no. 83 (2014), p. 33.

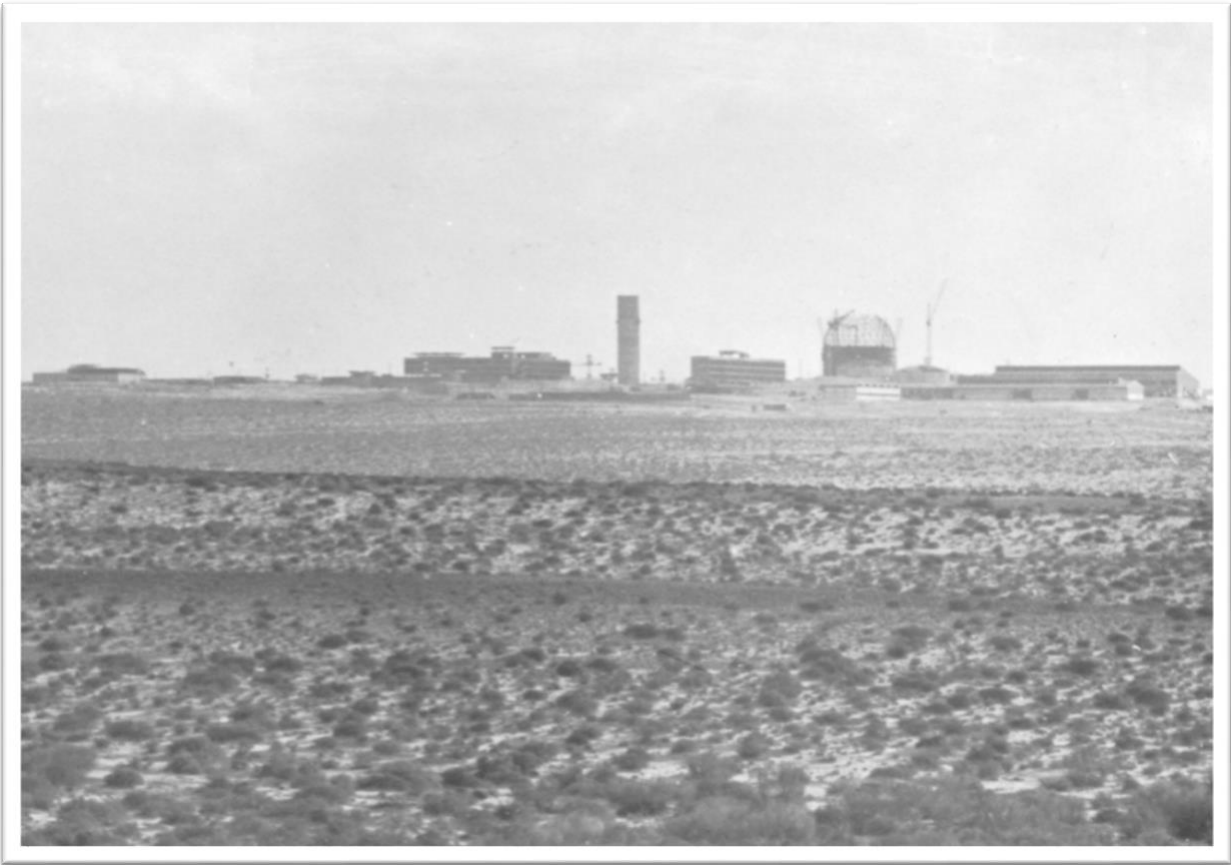
²⁰⁶ U.S. Embassy Tel Aviv, Dispatch No. 75 to State Department, Subject: ‘French Atomic Energy Project in Israel’, 02 August 1960, Confidential. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%203.pdf>. Last accessed: April 28, 2018.

independent sources to corroborate Anderson's information (for unknown reasons the post-mortem makes no mention of the U-2 data).²⁰⁷ One attempt to ferret out information is known: U.S. military attachés at the embassy in Tel Aviv were assigned to find a reason to travel to the Negev Desert and take photographs of the alleged nuclear reactor. Special automatic cameras were developed by the CIA for the attachés. "All they had to do was push the trigger", recalled Arthur Lundahl. A few of the attachés, he added, "snuck in and got some good shots" (see Figures 3.1-3.3).²⁰⁸ The Israelis responded by planting large trees to block the line of vision and increasing their perimeter patrols around the Dimona reactor.

²⁰⁷ USIB, 'Post-Mortem on SNIE 100-8-60', p. 8.

²⁰⁸ Quoted in Hersh, *The Samson Option*, p. 57.

Figure 3.1 Dimona construction site in late 1960²⁰⁹



²⁰⁹ This and the two other photographs of the Dimona construction site were taken during the last months of 1960. According to the USIB post-mortem American and British military attachés took photos and these could be from either source. The images are located in the U.S. State Department records at the National Archives and are online available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/>. Last accessed: April 28, 2018.

Figure 3.2 Dimona construction site in late 1960



Figure 3.3 Dimona construction site in late 1960



Further intelligence regarding Dimona reached the U.S. intelligence community from a unique human source in late November 1960. On his way back from Israel to the United States, Henry J. Gomberg, a professor of nuclear engineering at University of Michigan, briefly stopped in Paris and met with U.S. diplomats. As a guest of the IAEC and a consultant on matters of nuclear education in Israel, Gomberg had picked up some “urgent and secret” pieces of information about Israel’s nuclear program that he wanted to share with “high-level” U.S. officials.²¹⁰ Several days

²¹⁰ U.S. Embassy Paris, Telegram No. 2162 to State Department, 26 November 1960, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%206A.pdf>. Last accessed: April 28, 2018.

later, on 1 December, Gomberg came to Washington where he was debriefed by the CIA, the USAEC and the State Department. Based on his discussions with a number of “highly placed” Israelis, Gomberg became convinced that Israel was building “a very large nuclear and electrical power plant” in the Negev Desert south of Beersheba. He told U.S. officials that the reactor’s design was “far beyond any kind of a training reactor”; Gomberg had no doubt that the reactor would “be capable of producing weapons-grade plutonium”.²¹¹ Gomberg told U.S. officials that when he pressed Dr. Bergmann for information about the Dimona reactor, the latter apparently acknowledged that the original intention was to announce the reactor in 1961, but that because of the many rumors surrounding Dimona, Ben-Gurion would make an announcement about a peaceful power reactor in about three weeks time.²¹²

The information collected by the CIA in the summer and fall of 1960 resulted in a Special National Intelligence Estimate (SNIE) on Dimona that formally determined that “Israel is engaged in construction of a nuclear reactor complex in the Negev near Beersheba” and “plutonium production for weapons is at least one major purpose of this effort”. The “surrounding” secrecy and Dimona’s remote location was strong evidence of the military purposes. The SNIE estimated “that Israel will produce some weapons grade plutonium in 1963-64 and possibly as early as 1962”. Such a development, the SNIE suggested, could cause “consternation” in the Arab world, which

²¹¹ Central Intelligence Agency (CIA), Information Report, Subject: ‘Nuclear Engineering/Large Nuclear and Electric Power Plant Near Beersheba/French Nuclear Assistance to Israel/Israeli Attitude Toward the Announcement of its Large-Scale Nuclear Effort/Opportunity for U.S. Participation in Nuclear Powered Water Conversion’, 09 February 1961, Confidential. Available at:

<https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%206C.pdf>. Last accessed: April 28, 2018.

²¹² U.S. Department of State, Memorandum of conversation, 01 December 1960, Secret, excised copy. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%206B.pdf>. Last accessed: April 28, 2018.

would put blame both on the United States and France for Israeli accomplishments in the nuclear field.²¹³

On 8 December 1960, CIA Director Allen W. Dulles briefed President Eisenhower and the National Security Council (NSC) on the SNIE and passed around photos of Dimona taken by the military attachés. Dulles informed the President and his aides (1) that Israel was constructing, with French assistance, a nuclear complex in the Negev, (2) that this complex contained a reactor capable of producing weapons-grade plutonium, (3) that Israel would soon announce that the reactor was intended exclusively for peaceful purposes, and (4) that CIA and USAEC experts were convinced that the reactor cannot be solely for peaceful purposes. Vice President Richard M. Nixon asked “what other countries had similar nuclear facilities”. China and France, Dulles replied, adding that India was also planning to build a large-scale nuclear reactor. Nixon urged Dulles that “the construction of nuclear facilities by ‘fourth countries’ should be a major intelligence target since such facilities posed a danger even in friendly countries”. Secretary of State Christian A. Herter drew the attention of the meeting to the financial aspects of Dimona, stressing that “The fact that the facility cost between \$40 and \$80 million at a time when we were providing aid to Israel raises serious questions”. Under Secretary of the Treasury Fred C. Scribner remarked that “Israel might have been able to build this expensive nuclear facility because of funds which reach that country from Jewish charitable organizations in the U.S.” These private contributions, Scribner added, “are deductible from U.S. income taxes and the Treasury has experienced difficulties in the past because some of the charitable funds are diverted to government

²¹³ Central Intelligence Agency (CIA), ‘Special National Intelligence Estimate (SNIE) Number 100-8-60: Implications of the Acquisition by Israel of a Nuclear Weapons Capability’, 08 December 1960, Secret, excised copy. Available at: <http://digitalarchive.wilsoncenter.org/document/121939>. Last accessed: April 29, 2018.

operations in Israel”. Scribner felt that the implications of this problem were rather “far-reaching”.²¹⁴ At one point during the discussion, Herter “wondered whether Israel would be willing to apply safeguards to its nuclear facilities”.²¹⁵ However, no one picked up on this point, let alone supported Herter; there was no discussion whatsoever about how to prevent Israel from going nuclear.

But how should the United States react to the ‘discovery’ of Dimona? One day before the NSC meeting, on 7 December, a group of senior U.S. officials discussed Dimona and what to do about it at a luncheon meeting of the Operations Coordinating Board (OCB), which served as the coordinating and implementing unit for Eisenhower’s NSC system. Deputy Under Secretary of State Livingston Merchant emphasized the subject’s “political sensitivity” and cautioned against any action or comment that would cast doubt upon the anticipated Israeli announcement regarding the peaceful purposes of Dimona. U.S. officials agreed, however, that the Israeli “cover story would not be successful for long”. In order to avoid any repercussions which were bound to arise from this development, Merchant proposed that Washington adopt the following courses of action: “(1) that the State Department do everything possible to disassociate the U.S. with the Israeli nuclear project in the eyes of the Arab world; (2) that we should use the emergence of this project as leverage to persuade India to agree to IAEA safeguards; and (3) that we utilize this development

²¹⁴ French Foreign Minister Maurice Couve de Murville confirmed to Herter on 15 December 1960 that Dimona was financed by the “diversion of U.S. government or private [American] aid”. See U.S. Embassy Paris, Telegram No. CAHTO 4 to State Department, 16 December 1960, Top Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2011.pdf>. Last accessed: April 28, 2018.

²¹⁵ U.S. Department of State, ‘Memorandum of Discussion at the 470th Meeting of the National Security Council’, 08 December 1960, Top Secret, excised copy. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%209.pdf>. Last accessed: April 28, 2018.

with the USSR insofar as possible in order to obtain Russian agreement on nuclear testing”.²¹⁶ Again, there was no discussion about how to prevent Israel from going nuclear. To the contrary, U.S. officials agreed to keep quiet about Dimona until the Israelis announce it as a peaceful power reactor. Once the cover fails, the U.S. would try to disassociate itself with Dimona and use it as a political tool to persuade *other* states to agree to IAEA safeguards or arms control treaties.

3.1.6 Denial

On 13 December 1960, *Time* magazine reported that “a small power which is neither Communist nor a member of NATO is developing a nuclear option”.²¹⁷ Three days later, Chapman Pincher, the scientific correspondent of the London *Daily Express*, identified Israel as the state, adding that “British and American intelligence authorities believe that the Israelis are well on the way to building their first experimental nuclear bomb”.²¹⁸ Pincher had been tipped off by a senior British nuclear weapons scientist, whose concern was that an Israeli bomb would necessarily be ‘dirty’ (i.e. generate a lot of radioactive fallout). Thus, before Israel could publicly announce the peaceful nature of its nuclear program, the secrecy shrouding the program was lifted by the international press. The Israeli embassy in London immediately issued a denial: “Israel is not building an atom bomb and has no intention of doing so”.²¹⁹

However, the sudden publicity surrounding Israel’s nuclear program was not only problematic for the Israelis, but also for the Americans, who feared that the Arab world would blame Washington

²¹⁶ U.S. Department of State, Memorandum, from Deputy Operations Coordinator Charles E. Rogers, Office of Under Secretary of State for Political Affairs, to Mr. Jones and Mr. Farley, 07 December 1960, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%207.pdf>. Last accessed: April 28, 2018.

²¹⁷ Karpin, *The Bomb in the Basement*, pp. 156-57.

²¹⁸ Hersh, *The Samson Option*, p. 76.

²¹⁹ Karpin, *The Bomb in the Basement*, p. 157.

for Israeli accomplishments in the nuclear field. Accordingly, in an attempt to disassociate itself with the Israeli nuclear project, the Eisenhower administration decided to plant its own story in the media. In mid-December, USAEC chairman John A. McCone leaked secret CIA information about Dimona to the *New York Times* journalist John W. Finney. “McCone was mad, sputtering mad”, Finney recalled. “He started talking and saying, ‘They [the Israelis] lied to us... they told us it was a textile plant’”.²²⁰ There was new intelligence, McCone said, revealing that Israel had secretly built a nuclear reactor in the Negev Desert with French help. There was no ‘new’ evidence, of course. What Finney did not know at that time was that McCone had been briefed regularly on the Israeli nuclear program after replacing Lewis Strauss as USAEC chairman in July 1958. Finney was convinced, as McCone wanted him to be, that the chairman’s anger stemmed from recently acquired knowledge about the Dimona complex. “McCone left me with the impression”, Finney recalled, “that they’d suddenly appreciated that the Israelis were lying to them”.²²¹ Finney’s subsequent article, published on 19 December 1960 in the *New York Times*, confirmed Pincher’s earlier report “that Israel, with the assistance of France, may be developing the capacity to produce atomic weapons”.²²² Crucially, however, it added that “Israel had made no public announcement about the reactor, nor has she privately informed the U.S. of her plan... There is an ill-concealed feeling that the U.S. has been left in the dark by two of its international friends, France and Israel”.²²³ A public statement issued by the State Department on the same day stressed that the

²²⁰ Quoted in Hersh, *The Samson Option*, pp. 71-72.

²²¹ *Ibid.*, p. 73.

²²² Finney, J. W. ‘U.S. Hears Israel Moves Toward A-Bomb Potential’, *The New York Times*, 19 December 1960. Available at:

<http://query.nytimes.com/gst/abstract.html?res=9D0CE1DF1531EF3ABC4152DFB467838B679EDE&legacy=true>.

Last accessed: April 11, 2018. See also Kornberg, W. ‘Israel Reactor “Not Revealed to Us,” Says McCone, Avoiding Word “Secret”’, *The Washington Post*, 19 December 1960; and Hersh, *The Samson Option*, p. 77.

²²³ Hersh, *The Samson Option*, 72.

United States had provided no assistance in constructing the Dimona reactor because that would be contrary to U.S. nonproliferation policy.²²⁴

The unwanted publicity surrounding Dimona only added to Ben-Gurion's determination to protect Dimona's secrets. To keep his dream of an Israeli nuclear deterrent alive, Ben-Gurion met with his closest aides on December 20 to come up with a convincing cover story for Dimona. Two days after Dimona was revealed to the public, Ben-Gurion 'admitted' in a public speech before the Knesset on 21 December 1960 (the only such speech ever given) that Dimona was indeed a nuclear plant, but asserted that it was intended solely for peaceful purposes:

The reports in the media [regarding Israel's plans to build a nuclear weapon] are false. The research reactor we are now building in the Negev is being constructed under the direction of Israeli experts, and is designed only for peaceful purposes. When it is complete, it will be open to scientists from other countries.²²⁵

U.S. officials who had been briefed about Dimona knew that Ben-Gurion was lying. However, they refrained from publicly challenging his statements. To the contrary, in a statement released to the press on the day after Ben-Gurion's speech, the State Department accepted the Israeli cover story for Dimona at face value: "The government of Israel has given assurances that its new reactor... is dedicated solely for peaceful purposes... It is gratifying to note that as made public the Israel atomic energy program does not represent cause for special concern".²²⁶ Apparently, the State Department issued this statement to allay growing concern in the Middle East over Israel's

²²⁴ U.S. Department of State, 'U.S. Notes Reports of Israel's Atomic Energy Activities', 19 December 1961. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2013B.pdf>. Last accessed: April 19, 2018.

²²⁵ Quoted in Shalom, Z. 'Israel's Nuclear Option Revisited', *Journal of Israeli History*, vol. 24, no. 2 (2005), p. 276, note 16. See also Cochran, 'Israel's Nuclear History', p. 136.

²²⁶ Quoted in Shuster, A. 'Israel Satisfies U.S. on Use of Reactor', *The New York Times*, 23 December 1960. Available at: <https://www.nytimes.com/1960/12/23/archives/israel-satisfies-us-on-use-of-reactor-israel-satisfies-us-on.html>. Last accessed: April 21, 2018.

nuclear program. Yet, although the statement had “some calming effect” in the region, Israel’s neighbors continued to be “deeply alarmed”.²²⁷ Indeed, Egypt’s President Gamal Abdel Nasser, badly rattled by the prospect of a nuclear-armed Israel, publicly stated on 23 December that Egypt would never permit Israel to be its superior; if necessary, he said, Egypt would attack and “destroy the base of aggression even at the price of four million casualties”.²²⁸ Moreover, many press and TV reports, especially in the Middle East and the Soviet Union, were blaming the United States for Israeli accomplishments in the nuclear field. These developments might explain why the State Department sent a private circular to U.S. embassies around the world saying that it was “considerably disturbed by large amount of info re USG [United States Government] interest in Israel’s atomic program which has leaked into American and world press. Effort has been made to create more excitement than facts as revealed by Israelis warrant. Department will do what it can in Washington and hopes addressee posts can assist in stilling atmosphere”.²²⁹ Thus, the Eisenhower administration was now concerned with limiting the worldwide criticism leveled against Israel.

However, this did not mean that Washington’s interest in Israel’s reactor was waning. The Eisenhower administration wanted from Israel “the truth, the whole truth, and nothing but the truth”; it was particularly interested in “what Israel proposes to do with its plutonium”. However, the archival record indicates that in light of the large amount of uncalculated publicity in the world press and the hostile Arab reactions, the Eisenhower administration decided to avoid another round

²²⁷ U.S. Department of State, Telegram No. 502 to U.S. Embassy Tel Aviv, 31 December 1960, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2021.pdf>. Last accessed: April 11, 2018.

²²⁸ Quoted in Hersh, *The Samson Option*, p. 108.

²²⁹ Quoted in *Ibid.*, p. 80.

of “alarmist publicity” and engage with the Israelis “quietly” through private diplomatic channels.²³⁰

On 24 December, two days after Ben-Gurion’s Knesset speech, Ogden R. Reid, then U.S. Ambassador to Israel, had a long discussion with Ben-Gurion about the nuclear issue. Reid told Ben-Gurion that the Eisenhower administration had welcomed his public statement in the Knesset regarding the peaceful purposes of Dimona and assured him that the U.S. “did not wish to prolong or exaggerate this issue”. Reid then asked whether Israel would accept the application of IAEA safeguards to plutonium produced in Dimona so as to remove any doubts other nations might have regarding Israel’s peaceful purposes. Ben-Gurion responded that the State Department’s public statement of December 22 would suffice to “set things right” regarding Israel’s intentions. Reid pointed out that the State Department had only made that statement “after TV reports and radio Moscow charges that the U.S. [was] aiding the Israeli nuclear weapons program”. Ben-Gurion insisted that Israel’s nuclear program was intended solely for peaceful purposes and justified the secrecy surrounding Dimona as protection for foreign suppliers against an Arab economic boycott: “the foreign private companies that participated in it [Dimona] were in fear of [an] Arab boycott and requested assurances that their work in Israel would not be made known and thus endanger their operations in Arab countries”. When Reid asked again about IAEA safeguards over plutonium produced in Dimona, Ben-Gurion replied that “We are still 3 or 4 years from anything

²³⁰ U.S. Department of State, Memorandum, from Assistant Secretary of State for Near Eastern Affairs Jones, to Under Secretary of State for Political Affairs Merchant, Subject: ‘Israel’s Atomic Energy Activities’, 30 December 1960, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2019.pdf>. Last accessed: April 11, 2018.

called plutonium. When we get to that point we won't be behind any power in [the] world in respect to safeguards".²³¹

Apparently, Ben-Gurion's non-answers annoyed U.S. government officials who were in the know about Dimona. "The Government of Israel had by no matter of means yet come clean with us", grumbled CIA director Allen W. Dulles during an OCB meeting on 28 December 1960.²³² To State Department officials, Ben-Gurion's answers "appear[ed] evasive"; the "clearly apparent lack of candor [was] difficult to reconcile with [the] confidence which had traditionally characterized U.S.-Israel relations".²³³ Assistant Secretary of State G. Lewis Jones worried about what he saw as "intemperate" reactions by U.S. officials but recognized the widespread impression that "the Israelis have inexcusably duped us".²³⁴ However, as Burr and Cohen point out, "a huge gap existed between what senior U.S. officials said to each other about Dimona and what they said to the Israelis. While they recognized clear weapons intentions that posed a significant proliferation risk, when talking to the Israelis they masked their irritation and suspicion".²³⁵

Opting for a cautious approach, U.S. officials chose not to be confrontational but to confine themselves largely to seeking more candid answers about the nature of Dimona and Israel's

²³¹ U.S. Embassy Tel Aviv, Telegram No. 577 to State Department, 24 December 1960, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2016.pdf>. Last accessed: April 21, 2018.

²³² U.S. Department of State, Memorandum, from Under Secretary of State for Political Affairs Merchant, to Assistant Secretary of State for Near Eastern Affairs Jones, 28 December 1960, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2018.pdf>. Last accessed: April 11, 2018.

²³³ U.S. Department of State, Telegram No. 502 to U.S. Embassy Tel Aviv, 31 December 1960, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2021.pdf>. Last accessed: April 11, 2018.

²³⁴ U.S. Department of State, Memorandum, from Assistant Secretary of State for Near Eastern Affairs Jones, to Under Secretary of State for Political Affairs Merchant, Subject: 'Israel's Atomic Energy Activities', 30 December 1960, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2019.pdf>. Last accessed: April 11, 2018.

²³⁵ Cohen & Burr, 'How Israel Hid Its Secret Nuclear Weapons Program'.

intentions, and encouraging Israel to accept the application of IAEA safeguards and/or permit visits by U.S. or other scientists to Dimona.²³⁶ In early January 1961, Reid brought these issues up in another meeting with Ben-Gurion. Ben-Gurion told Reid that the Dimona reactor was peaceful in nature and that “Israel has no plans for producing nuclear weapons”. However, Ben-Gurion wanted absolutely nothing to do with the IAEA. He offered the public argument, as did other putatively nonnuclear nations, that Israel should not be forced to place its national laboratories under IAEA aegis “until all reactors are treated as equals”. Nevertheless, he agreed to a “free and open” visit to Dimona by qualified U.S. scientists or representatives from “friendly powers”, provided that there would be no leaks.²³⁷

How U.S. officials interpreted Ben-Gurion’s statements remains unknown. What is known, however, is the fact that the Eisenhower administration continued to shield Israel’s nuclear weapons project from international scrutiny. On 11 January 1961, the U.S. Mission to the IAEA, which had been in the forefront of U.S. efforts to develop an effective safeguards policy, asked the State Department for policy guidance in case the Dimona issue came up for debate at an upcoming meeting of the Board of Governors. Ben-Gurion’s declaration to the Knesset that the reactor was for peaceful purposes was “hardly adequate”. The mission strongly recommended that “the U.S. seek Israeli agreement [to] submit [the Dimona] reactor to Agency safeguards and inspections”. Israeli acceptance of safeguards would “dramatically demonstrate the importance of effective Agency safeguards and would go a long way in undermining arguments of opponents of such a

²³⁶ U.S. Embassy Tel Aviv, Telegram No. 590 to State Department, 28 December 1960, Secret, excised copy. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2017.pdf>. Last accessed: April 11, 2018.

²³⁷ U.S. Embassy Tel Aviv, Telegram No. 625 to State Department, 04 January 1961. The telegram remains classified but a summary is available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2022.pdf>. Last accessed: April 21, 2018.

system”.²³⁸ Two days later, on December 13, the State Department responded that it was trying to diminish “further publicity and speculation over recent developments [regarding Dimona] while at the same time privately suggesting means Israel might allay concern by demonstrating peaceful nature [of] this facility [Dimona]”. This would be best accomplished through private diplomatic channels; an open debate regarding this subject in the Board of Governors meeting would “likely have [the] adverse effect”. It was “obviously” in the U.S. interest to send IAEA experts to visit Dimona and to obtain “first-hand information” but the Department noted that the Israelis have “reacted strongly” against any proposal for inspection and are not likely to change in the “immediate future”. The Department hoped that Board discussions would not press for IAEA inspections and instructed the U.S. Mission to “make every effort through informal consultations [with] friendly delegations and in [the] Board to limit discussion [of] this subject”.²³⁹ Thus, from the very beginning, the U.S. was shielding Israel’s nuclear-weapons program from the (embryonic) nonproliferation regime despite the fact that this threatened the establishment of a more effective safeguards system to curb the spread of nuclear weapons.

The fundamental question that needs to be asked is why the United States refrained from openly confronting Israel over Dimona, and instead adopted a cautious approach, which enabled Israel (and France) to complete construction of the basic facilities in Dimona sometime around 1960-61.²⁴⁰ As discussed above, many senior officials of the Eisenhower administration, including President Eisenhower himself, had known about Dimona early on but decided not to interfere

²³⁸ U.S. Mission to International Atomic Energy Agency (Vienna), Telegram No. 1087 to State Department, 11 January 1961, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2024A.pdf>. Last accessed: April 27, 2018.

²³⁹ U.S. Department of State, Telegram No. 1194 to U.S. Mission to IAEA (Vienna), 13 January 1961, Secret. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb510/docs/doc%2024B.pdf>. Last accessed: April 27, 2018.

²⁴⁰ Cochran, ‘Israel’s Nuclear History’, p. 136.

because they approved of it. The general conviction was that Israel's quest for an existential deterrent is justified, with the Holocaust certainly having an important emotional role in the formulation of America's attitude. However, there were also some high-ranking officials within the Eisenhower administration, like USAEC chairman John McCone, who were strongly committed to the concept of nuclear nonproliferation and vehemently opposed to Israel's nuclear weapons program. Yet, they too argued against a U.S. strategy of openly confronting Israel over the nuclear issue because they feared that this would lead to domestic pressure from the (embryonic) 'Israel lobby', a loose coalition of individuals and organizations that actively works to move U.S. foreign policy (especially in the Middle East) in a pro-Israel direction.²⁴¹ Indeed, according to Hersh, the only reason why the Eisenhower administration finally reacted to the intelligence about Dimona and dared to (indirectly) confront the Israelis over the issue in late 1960 was timing: "with the administration coming to an end, there was no longer any compelling reason to worry about domestic pressure from Jewish lobbying groups".²⁴²

3.2 Enter Kennedy/Compulsory Power

United States' nonproliferation policy towards Israel changed radically when John F. Kennedy was sworn into office in January 1961. Nuclear non-proliferation was given a high priority by President Kennedy, who feared that without decisive global action to curb nuclear proliferation, the number of nuclear-armed states would inevitably rise. This, Kennedy feared, would substantially increase the probability of a global nuclear war. Nuclear proliferation was Kennedy's "private nightmare", as Glenn Seaborg, his USAEC chairman, once noted.²⁴³ In the following, I

²⁴¹ On the Israel lobby and its impact on U.S. foreign policy, see Mearsheimer & Walt, *The Israel Lobby and U.S. Foreign Policy*, esp. chapters 4, 5 & 6.

²⁴² Hersh, *The Samson Option*, p. 74.

²⁴³ Quoted in Cohen & Burr, 'Kennedy, Dimona and the Nuclear Proliferation Problem: 1961-1962'.

analyze in detail how Kennedy tried to prevent Israel from crossing the nuclear weapons threshold and how Israel resisted this.

3.2.1 Pressing for Inspections

On 19 January 1961, one day before his official inauguration, JFK asked a group of senior officials from the Eisenhower administration about the countries which were most determined to seek nuclear weapons. “Israel and India,” Secretary of State Herter replied, adding that the Israelis were ahead of the Indians and might be able to produce weapons-grade plutonium by 1964. The new administration, advised Herter, should insist on inspections of Israel’s Dimona reactor, lest the Middle East be dragged into a nuclear arms race.²⁴⁴ With his concern about global nuclear proliferation, Kennedy took Herter’s advice seriously. On 31 January 1961, only days after his inauguration, Kennedy met with departing Ambassador Reid for discussions of Dimona and other regional matters. To help him prepare for the meeting, new Secretary of State Dean Rusk provided an updated report about Israel’s nuclear activities and a detailed chronology of Israel’s atomic history. Rusk was worried about the regional consequences of an Israeli bomb, “not the least of which might be the probable stationing of Soviet nuclear weapons on the soil of Israel’s embittered Arab neighbors”.²⁴⁵ Reid, it turned out, was not concerned at all about Israel’s nuclear activities. He told Kennedy that the administration could “accept at face value Ben-Gurion’s assurance that the reactor is to be devoted to peaceful purposes”. The fact that “Ben-Gurion had been less than candid with the United States”, Reid argued, could be “traced to his preoccupation with security”.

²⁴⁴ Bass, W. *Support Any Friend: Kennedy’s Middle East and the Making of the U.S.-Israel Alliance* (New York: Oxford University Press, 2003), p. 186.

²⁴⁵ U.S. Department of State, Memorandum for the President, Subject: ‘Your Appointment with Ogden R. Reid, Recently Ambassador to Israel’, 30 January 1961, with memorandum and chronology attached, Secret, Excised Copy. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806668-Document-1A-Secretary-of-State-Rusk-to-President>. Last accessed: May 26, 2018.

He informed Kennedy that an inspection of the Dimona reactor by a qualified American scientist could be arranged, “if it is done on a secret basis”. “Overt examination and announcement to the world”, Reid added, would “require greater effort, but could [also] be done”.²⁴⁶

Concerned about a recent visit to Cairo by Soviet Deputy Foreign Minister Vladimir Semenov and “the possibility that he might exploit Egyptian concern over Israel’s nuclear activities”, Kennedy pressed the State Department to arrange an inspection visit at Dimona as soon as possible.²⁴⁷ If the inspection gave Dimona a clean bill of health, Kennedy could use that assessment to soothe Egypt and the rest of the Arab world. In early February, Assistant Secretary of State G. Lewis Jones raised the issue of U.S. inspections of Dimona in a conversation with Avram Harman, then Israel’s ambassador to the United States. Kennedy took Ben-Gurion at his word about Dimona, Jones said, but he still wanted an American on-site visit. “When do you think Ben-Gurion will invite someone to see the Dimona site?”, Jones asked. “No one is thinking about anything else except the political crisis [the ‘Lavon Affair’]”, Harman replied. “I do not see how I could get to him [Ben-Gurion] or think that he would be inclined to give an invitation at this time”. Moreover, Harman could not understand why Kennedy was in such a hurry. The Dimona reactor would still take two years to complete, which meant that there was no plutonium and plenty of time to inspect the site. Jones responded that the idea of the proliferation of nuclear weapons to the Middle East was “absolutely anathema” to President Kennedy. Now that the suspicion of obtaining such a capability had fallen

²⁴⁶ U.S. Department of State, Memorandum of Conversation, Subject: ‘Ambassador Reid’s Review of His Conversation with President Kennedy’, 31 January 1961, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806669-Document-1B-Memorandum-of-Conversation>. Last accessed: May 26, 2018.

²⁴⁷ U.S. Department of State, Memorandum, from Assistant Secretary of State for Near Eastern Affairs Jones, to Secretary of State Rusk, Subject: ‘President’s Suggestion re Israeli Reactor’, 02 February 1961, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806670-Document-2A-Assistant-Secretary-of-State-for>. Last accessed: May 26, 2018.

on Israel, the sooner it could be lifted, the better. A visit by a group of U.S. nuclear experts would be invaluable towards that end.²⁴⁸

On 10 April 1961, after continued diplomatic pressure from the Kennedy administration, Harman finally informed the State Department that Israel was formally inviting U.S. scientists to visit the Dimona reactor during the week of 15 May. However, Harman insisted that the visit should be kept top secret both before and after the event “since any publicity could have a most undesirable effect”. State Department officials responded that “the United States did not wish publicity... but to label it ‘secret’ and make extreme efforts to avoid any knowledge of the visit might be counter-productive”.²⁴⁹ As Jones explained to Rusk the next day, “It seems to us to defeat the objective of establishing that the reactor is a normal civilian atomic project if extreme measures of secrecy are taken in connection with the visit”. In view of the continued Congressional interest, Jones said, a number of people inside the U.S. would have to be informed sooner or later about the inspection results. The results would also have to be shared with other states, who were looking to the United States for an assessment of Dimona. Moreover, Jones warned that surrounding the visit with excessive secrecy would give the appearance of U.S. connivance in Israel’s nuclear project and stir up renewed speculation about the project if the efforts at secrecy fail. A “much simpler approach with much less risk”, Jones suggested, would be a “quiet visit”, whereby the inspection would be closely held and certainly not publicized; however, the inspection results would be shared

²⁴⁸ U.S. Department of State, Memorandum of Conversation, Subject: ‘Israeli Reactor’, 03 February 1961, Confidential. Available at: <https://nsarchive2.gwu.edu//dc.html?doc=2806671-Document-2B-Memorandum-of-Conversation-Israeli>. Last accessed: May 26, 2018.

²⁴⁹ U.S. Department of State, Memorandum of Conversation, Subject: ‘U.S. Visit to Dimona Reactor Site’, 10 April 1961, Secret. Available at: <https://nsarchive2.gwu.edu//dc.html?doc=2806681-Document-4A-Memorandum-of-Conversation-U-S-Visit>. Last accessed: May 26, 2018.

with appropriate U.S. agencies and key allies, such as the United Kingdom.²⁵⁰ In subsequent meetings, the Israelis kept pushing the necessity for secrecy, but State Department officials insisted that a quiet visit was enough to keep Dimona out of the spotlight.²⁵¹

However, apparently President Kennedy was dissatisfied with the State Department's approach. On May 16, Kennedy told the new U.S. ambassador to Israel, Walworth Barbour, that he was concerned about "our agreement that the visit [to Dimona] should be carried out without publicity" as well as the "absence of a 'neutral' scientist". Addressing Kennedy's concerns, the State Department took the position that it was better to put up with the Israelis' "sensitivities" about secrecy than "have no visit" at all. Moreover, the State Department believed that once the Israelis became used to U.S. visits to Dimona it "may prove easier to persuade Israel to accept visits by scientists of other countries or publicized, international inspection by the IAEA".²⁵² Thus, the 'quiet visit' to Dimona was only a first step in the overall U.S. nonproliferation strategy towards Israel. Washington's long-run objective was to broaden and institutionalize public inspections of Dimona by the IAEA.

On 20 May 1961, two USAEC scientists, Dr. Ulysses M. Staebler, Assistant Director of Reactor Development and Chief of the Civilian Power Reactors Branch, and Dr. Jesse W. Croach Jr., a

²⁵⁰ U.S. Department of State, Memorandum, from Assistant Secretary Jones, to Secretary of State Rusk, Subject: 'Your Appointment with Israeli Ambassador Harman', 11 April 1961, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806682-Document-4B-Memorandum-by-Assistant-Secretary>. Last accessed: May 26, 2018.

²⁵¹ U.S. Department of State, Memorandum of Conversation, Subject: 'U.S. Visit to Dimona', 17 April 1961, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806683-Document-5A-Memorandum-of-Conversation-U-S-Visit>. Last accessed: May 26, 2018.

²⁵² U.S. Department of State, Memorandum, from L.D. Battle, Executive Secretary, to McGeorge Bundy, Special Assistant to the President for National Security Affairs, Subject: 'American Scientists' Visit to Israel's Dimona Reactor', 18 May 1961, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806690-Document-7-President-Kennedy-s-Concerns>. Last accessed: May 26, 2018.

heavy water reactor expert from Dupont (USAEC's principal contractor for heavy water reactor work), visited the Dimona reactor on a carefully crafted tour. When Staebler and Croach met with State Department officials on their return, they said that they were "satisfied that nothing was concealed from them and that the reactor is of the scope and peaceful character previously described to the United States by representatives of the Government of Israel". Yet, although they found "no present evidence that the Israelis have weapon production in mind", Staebler and Croach acknowledged that the Dimona reactor would eventually produce "small quantities of plutonium suitable for weapons".²⁵³ Moreover, their official report to the USAEC noted that "It is quite possible that after operating experience has been obtained the power level of the reactor can be increased by a factor of the order of two by certain modifications in design and relaxation of some operating conditions".²⁵⁴ The more powerful the reactor, of course, the more plutonium it could produce. Thus, Dimona, like other such reactors, was 'dual-use' in nature. Even if used solely for peaceful purposes (research, energy etc.), it would sooner or later produce plutonium suitable for weapons production. And with just a few simple modifications, the plutonium production rate could be increased by 100%.²⁵⁵

Indeed, a Department of State briefing paper, which should help JFK prepare for an upcoming meeting with Ben-Gurion, alerted the President to the fact that Staebler and Croach's findings "cover only present activities" at the Dimona reactor. "Certain knowledge of the program's

²⁵³ U.S. Department of State, Memorandum, from L. D. Battle, Executive Secretary, to McGeorge Bundy, Special Assistant to the President for National Security Affairs, Subject: 'U.S. Scientists' Visit to Israel's Nuclear Reactor', 26 May 1961, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806691-Document-8A-Memorandum-from-Executive-Secretary>. Last accessed: May 26, 2018.

²⁵⁴ U.S. Atomic Energy Commission (USAEC), 'Visit to Israel by U.M. Staebler and J.W. Croach, Jr.', 07 June 1961, Confidential, p. 12. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806781-8Bo>. Last accessed: May 26, 2018.

²⁵⁵ Glaser, A. & Miller, M. 'Estimating Plutonium Production at Israel's Dimona Reactor', pp. 1-10. Available at: <https://www.princeton.edu/~aglaser/PU056-Glaser-Miller-2011.pdf>. Last accessed: May 26, 2018.

purpose” could only be obtained by “similar visits at frequent intervals”. Ideally, these visits would be carried out by neutral scientists from friendly states. The State Department also urged Kennedy to “oppose concealment of Israel’s intentions, even if these be peaceful, because of the unsettling effect any doubt would have on an area with a highly explosive potential”.²⁵⁶

On 30 May 1961, Kennedy met with Ben-Gurion in the Waldorf Astoria hotel in New York and asked him whether it would be possible to disseminate the USAEC scientists’ inspection results so as “to remove any doubts other nations might have as to Israel’s peaceful purposes”. Ben-Gurion dodged the question and told Kennedy that the main purpose of Dimona was to solve Israel’s chronic fresh-water shortage by providing affordable energy for the desalinization of sea water. However, Ben-Gurion’s narrative and rationale left a little wiggle room for a future change of heart: “Israel’s main—and *for the time being*, only—purpose is this [cheap energy, etc.]”, Ben-Gurion said, adding that “we do not know what will happen in the future; in three or four years we might have need for a plant to process plutonium”.²⁵⁷ According to a recently declassified draft record of the Waldorf meeting, Ben-Gurion added that a “pilot plan for plutonium separation” was “needed for atomic power, but there is no intention to develop weapons capacity *now*”. Thus, Ben-Gurion hinted that Israel reserved the right to produce plutonium for weapons if regional circumstances so demanded. However, apparently Ben-Gurion “spoke rapidly and in a slow voice at this point [of the conversation]”, which might explain why Kennedy did not ask about Israel’s

²⁵⁶ U.S. Department of State, Briefing Book, Subject: ‘Israel Prime Minister Ben-Gurion’s Visit to the United States’, n.d. [circa 29 May 1961], Secret, excerpts. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806693-Document-9A-Briefing-Book-Israel-Prime-Minister>. Last accessed: May 26, 2018.

²⁵⁷ U.S. Department of State, Memorandum of Conversation, Subject: ‘Conversation between President Kennedy and Prime Minister Ben-Gurion’, 29 June 1961 (emphasis added). Available at: <https://history.state.gov/historicaldocuments/frus1961-63v17/d57>. Last accessed: May 26, 2018.

plans to build a reprocessing plant or about the plutonium that might be produced there.²⁵⁸ Nevertheless, Kennedy warned that “it is to our common interest that no country believe that Israel is contributing to the proliferation of atomic weapons. It is obvious that [Egypt] would not permit Israel to go ahead in this field without getting into it itself”. Kennedy then asked again whether, as a matter of reassurance, other states might be advised of the USAEC scientists’ findings. “You are absolutely free to do what you wish with the report”, Ben-Gurion replied. When Kennedy asked whether scientists from neutral countries (in terms of the Arab-Israeli dispute) could also have a look at Dimona, Ben-Gurion did not demur, and the meeting moved on to other topics.

In the following days and weeks, the State Department send messages about the USAEC scientists’ visit to Dimona to a number of U.S. embassies in the Middle East and Western Europe, including Egypt, the country most concerned about Israel’s nuclear program, but also Norway, which was highly interested in the subject because of its heavy water sales to Israel. Through those messages the “highest levels” of those governments were informed that the U.S. scientists had “found no evidence” of Israeli preparations for producing nuclear weapons.²⁵⁹

²⁵⁸ U.S. Department of State, Memorandum of Conversation, no subject, 30 May 1961, Secret, Draft (emphasis added). Available at: <https://nsarchive2.gwu.edu//dc.html?doc=2806694-Document-9B-Memorandum-of-Conversation-President>. Last accessed: May 26, 2018.

²⁵⁹ U.S. Department of State, Circular Telegram No. 2047 to U.S. Embassy Jordan [et al.], 17 June 1961, Confidential. Available at: <https://nsarchive2.gwu.edu//dc.html?doc=2806716-Document-10C-State-Department-Circular-Telegram>. Last accessed: May 26, 2018. See also U.S. Department of State, Telegram No. 5701 to U.S. Embassy United Kingdom, 31 May 1961, Secret. Available at: <https://nsarchive2.gwu.edu//dc.html?doc=2806714-Document-10A-State-Department-telegram-5701-to-U>. Last accessed: May 26, 2018; and U.S. Department of State, Telegram No. 2121 to U.S. Embassy United Arab Republic, 15 June 1961, Secret. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v17/d65>. Last accessed: May 26, 2018.

3.2.2 The Second U.S. Visit to Dimona

The next item on the State Department's to-do list was to arrange a visit of Dimona by scientists from a neutral country. This was crucial because it would get the United States out of its position of being the sole "guarantor of Israel's nuclear intentions" on the basis of the May 1961 visit by USAEC scientists.²⁶⁰ Apparently, State Department officials had "quiet discussions" with Sweden "with a view to that country's accepting the role of first neutral, open visitor to Dimona".²⁶¹ However, the Swedes expressed only "faint interest" in playing a role, which led Washington to decide to "undertake the responsibility once more".²⁶²

The main reason why the Kennedy administration decided to push for a second visit was that it started to doubt the USAEC scientists' inspection results. Soon after the first inspection of Dimona, the Kennedy administration started receiving detailed information from the U.S. intelligence community pointing to the fact that the Dimona nuclear program was heading toward the development of a military nuclear capacity. For example, a recently declassified National Intelligence Estimate (NIE) on Israel by the CIA concluded on 5 October 1961 (five months after the first inspection of Dimona) that "Israel may have decided to undertake a nuclear weapons program. At a minimum, we believe it has decided to develop its nuclear facilities in such a way

²⁶⁰ U.S. Department of State, Memorandum, from Robert C. Strong, to Phillips Talbot, Subject: 'Your Appointment with Israel Ambassador Harman, 4:45 p.m., Tuesday, November 14', 14 November 1961, Confidential. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806719-Document-12A-Robert-C-Strong-to-Phillips-Talbot>. Last accessed: May 26, 2018.

²⁶¹ U.S. Department of State, Memorandum of Conversation, Subject: 'Israel's Atomic Energy Program', 09 April 1962, with U.S. memorandum attached, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806726-Document-14D-Memorandum-of-Conversation-Israel-s>. Last accessed: May 26, 2018.

²⁶² U.S. Department of State, Memorandum, from Robert C. Strong, to Phillips Talbot, Subject: 'Another Visit to Israel's Dimona Reactor', 22 June 1962, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806727-Document-15A-Robert-C-Strong-to-Phillips-Talbot>. Last accessed: May 26, 2018.

as to put it into a position to develop nuclear weapons promptly should it decide to do”.²⁶³ Moreover, if the Israelis had made such a decision, the Dimona reactor would “produce sufficient weapons grade plutonium for one or two crude weapons a year by 1965-1966, provided separation facilities with a capacity larger than that of the pilot plant now under construction are available”.²⁶⁴

On 22 June 1961, Assistant Secretary of State Phillips Talbot raised the issue of a second U.S. visit to Dimona in a conversation with Harman. He told Harman that the visit of May 1961 had been “most successful, removing the [Dimona] reactor’s development as a political irritant from the Near East situation”. Talbot suggested that a second U.S. visit to Dimona would help to preserve the surrounding countries’ “relaxed attitude” towards Dimona. Harman responded that he would refer the request to Ben-Gurion and be in touch as soon as a reply is received.²⁶⁵ The lack of response led Talbot to bring up the matter in another conversation with Harman on 14 September. By then, two USAEC scientists, Dr. Thomas Haycock and Dr. Ulysses Staebler, were scheduled to visit the Atoms-for-Peace reactor at Nahal Soreq in a matter of days and it made sense for them to include a visit to the Dimona reactor. However, despite Talbot’s warning that “this was a matter of primary importance”, Harman replied that Israel could not respond until Ben-Gurion returned from a trip to Scandinavia in late September.²⁶⁶

²⁶³ The Central Intelligence Agency (CIA), ‘National Intelligence Estimate (NIE) Number 35-61: The Outlook for Israel’, 05 October 1961, Secret, p. 2. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806717-Document-11A-National-Intelligence-Estimate-No>. Last accessed: May 28, 2018.

²⁶⁴ Ibid., p. 6. A letter from the State Department to the USAEC confirms that the Kennedy administration knew about NIE 35-61 in November 1961. See U.S. Department of State, Letter, from Howard Furnas, Office of Special Assistant to Secretary of State for Atomic Energy and Outer Space, to Dwight Ink, Atomic Energy Commission, 15 November 1961, Secret. Available at: <https://assets.documentcloud.org/documents/2806718/Document-11B-Letter-Howard-Furnas-Office-of.pdf>. Last accessed: May 28, 2018.

²⁶⁵ U.S. Department of State, Memorandum of Conversation, Subject: ‘A Second Visit by U.S. Scientists to Israel’s Dimona Reactor’, 22 June 1962, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806728-Document-15B-Memorandum-of-Conversation-A-Second>. Last accessed: May 28, 2018.

²⁶⁶ U.S. Department of State, Memorandum of Conversation, Subject: ‘Proposed Visit of U.S. Scientists to the Dimona Reactor’, 14 September 1962, Secret. Available at: <https://nsarchive2.gwu.edu/dc.html?doc=2806730-Document-15D-Memorandum-of-Conversation-Proposed>. Last accessed: May 28, 2018.

As the State Department grumbled about Ben-Gurion's stalling, the Israelis prepared for a 'spontaneous' visit to Dimona that would catch the Americans unprepared. As the two USAEC scientists who had arrived to inspect the Atoms-for-Peace reactor at Soreq were being driven back from a Dead Sea tour, their Israeli host Dr. Yuval Ne'eman, then the scientific director of the Soreq reactor, noted that they were passing by the Dimona reactor and that he could spontaneously "arrange a call with the director". It turned out that the director was not there, but the chief engineers gave them a 40-minute tour of the reactor. Apparently, the circumstances of the tour made the USAEC scientists feel a little awkward, "not certain whether they were guests of their scientist-host or on an inspection". Yet, although the U.S. scientists had not enough time to see the whole installation and although there were many buildings that they did not enter, they were able to "confirm that the reactor was not a power reactor but rather a large research reactor".²⁶⁷ Years later, in an interview with Avner Cohen, Ne'eman confessed that the visit was a deliberate "trick" he devised and executed to evade the substance of a real inspection and convince the USAEC scientists that Dimona was a peaceful research reactor.²⁶⁸

However, the highly unconventional nature of the second visit to Dimona stirred suspicion within the U.S. intelligence community. During a meeting to discuss the visit's intelligence value, the CIA's Deputy Director of Intelligence Ray Cline warned that, "while the immediate objective of the visit may have been satisfied, certain basic intelligence requirements were not". It was also

²⁶⁷ U.S. Department of State, Memorandum, from Rodger P. Davies, to Phillips Talbot, Subject: 'Second Inspection of Israel's Dimona Reactor', 27 December 1962, Secret. Available at: <https://nsarchive2.gwu.edu//dc.html?doc=2806734-Document-16C-Rodger-P-Davies-to-Phillips-Talbot>. Last accessed: May 28, 2018.

²⁶⁸ Cohen & Burr, 'Kennedy, Dimona and the Nuclear Proliferation Problem: 1961-1962',

observed that there were “inconsistencies between the first and second inspection reports insofar as the usages attributed to some equipment were concerned”. There were also still “questions as to whether in fact the reactor might give Israel a nuclear weapons capability”. Thus, the American intelligence community “did not agree with the inspectors that the inspection was completely satisfactory”.²⁶⁹ The contradictions between the assessment of the intelligence community and the findings of the inspection team gave rise to suspicion that Israel had deceived the American inspectors. Kennedy was worried about this possibility because Israel’s acquisition of the bomb would not only undermine U.S. efforts to establish a global non-proliferation regime, but also lead to increasing Soviet influence over Israel’s Arab neighbors and heightened risk of a confrontation between the U.S. and the Soviet Union in the event of an Arab-Israeli war.²⁷⁰ The main lesson learned from the 1962 Cuban Missile Crisis was to avoid such a confrontation by all possible means.

Accordingly, on 26 March 1963, Kennedy’s National Security Advisor McGeorge Bundy sent a full-blown National Security Action Memorandum (NSAM) to the CIA, the USAEC, and the State Department ordering them “as a matter of urgency” to “undertake every feasible measure to improve intelligence on the Israeli nuclear program”. Kennedy wanted “the next informal inspection of the Israeli reactor complex to be undertaken promptly and to be as thorough as possible”. He ordered the State Department to develop proposals for forestalling the Israeli nuclear

²⁶⁹ U.S. Department of State, Memorandum, from Rodger P. Davies, to Phillips Talbot, Subject: ‘Second Inspection of Israel’s Dimona Reactor’, 27 December 1962, Secret. Available at: <https://nsarchive2.gwu.edu//dc.html?doc=2806734-Document-16C-Rodger-P-Davies-to-Phillips-Talbot>. Last accessed: May 28, 2018.

²⁷⁰ Cohen, A. & Miller, M. ‘Bringing Israel’s Bomb Out of the Basement: Has Nuclear Ambiguity Outlived Its Shelf Life?’, *Foreign Affairs*, vol. 89, no. 5 (September/October 2010), p. 33.

program; including making it clear to Ben-Gurion “how seriously such a development would be regarded in this country”.²⁷¹

U.S. intelligence and scientific agencies, including the CIA, the USAEC, and the Arms Control and Disarmament Agency (ACDA), agreed that there must be at least two inspections per year to meet the requirements of the NSAM and make sure that Dimona is not being used for military purposes; at least this was what the IAEA’s minimum inspection system was calling for. The reason was simple: if a Dimona-sized reactor was being used to produce weapons-grade plutonium, it would take about six months to go through a single load of uranium fuel; if Dimona was used solely for peaceful purposes, however, it would take approximately two years to burn through such a load. Only through semi-annual inspections would the U.S. be able to spot the telltale fingerprint of the Dimona reactor’s fuel-use rate.²⁷² Thus, the U.S. intelligence and scientific agencies wanted to solve Dimona’s dual-use problem, first identified by Staebler and Croach in May 1961, by applying international standards set by the IAEA.

3.2.3 The Nuclear Ultimatum

On 2 April 1963, Ambassador Barbour met with Ben-Gurion to discuss the Dimona issue. When Barbour broached proposal for semi-annual U.S. visits to Dimona, Ben-Gurion apparently “did not demur”. However, in subsequent meetings with Barbour (on May 5 and May 14), the prime

²⁷¹ U.S. Department of State, National Security Action Memorandum (NSAM) No. 231, 26 March 1963, Top Secret. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v18/d199>. Last accessed: May 28, 2018.

²⁷² U.S. Department of State, Memorandum, from Department of State Executive Secretary Brubek, to the President’s Special Assistant for National Security Affairs Bundy, 12 June 1963, Secret. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v18/d267>. Last accessed: May 29, 2018.

minister did his best again to stall.²⁷³ On 18 May 1963, Kennedy decided to take matters into his own hand and send a letter to Ben-Gurion. Kennedy's letter noted that he had seen Barbour's report of his nuclear wrangle with Ben-Gurion and then offered "to add some personal comments on that subject". Kennedy reminded Ben-Gurion that for him there was "no more urgent business for the whole world than the control of nuclear weapons". He warned Ben-Gurion that development of a nuclear weapons capability by Israel would lead to a global nuclear arms race. "I cannot imagine that the Arabs would refrain from turning to the Soviet Union for assistance if Israel were to develop a nuclear weapons capability – with all the consequences this would hold", Kennedy wrote. "But the problem is much larger than its impact on the Middle East. Development of a nuclear weapons capability by Israel would almost certainly lead other larger countries, that have so far refrained from such development, to feel that they must follow suit". Kennedy ensured Ben-Gurion that the United States had a "deep commitment to the security of Israel" and reminded him that Washington was supporting Israel "in a wide variety of other ways". However, "This commitment and this support would be seriously jeopardized in the public opinion in this country and in the West as a whole", Kennedy wrote, "if it should be thought that this Government was unable to obtain reliable information on a subject as vital to peace as the question of the character of Israel's effort in the nuclear field". Never before (and after) had an American president been so blunt with an Israeli prime minister. "I trust this message will convey the sense of urgency and the perspective in which I view your Government's early assent to the proposal first put to you by Ambassador Barbour on April 2", Kennedy concluded.²⁷⁴

²⁷³ U.S. Department of State, Telegram, from Secretary of State Rusk, to U.S. Ambassador to Israel Barbour, Subject: 'Re your May 5 discussion with Ben-Gurion', Secret. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v18/d243>. Last accessed: May 28, 2018.

²⁷⁴ U.S. Department of State, Telegram to U.S. Embassy Tel Aviv, 18 May 1963, Secret. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v18/d252>. Last accessed: May 29, 2018.

On May 27, Ben-Gurion handed Barbour his reply. The letter began by assuring Kennedy that the Dimona reactor was devoted exclusively to peaceful purposes. However, just like in the Waldorf meeting in May 1961, Ben-Gurion kept a door open to the inauguration of other than peaceful programs in Israel when he stated that, “we should have to follow developments in the Middle East” and “we in Israel cannot be blind to the more actual danger now confronting us”. While Ben-Gurion sympathized with Kennedy’s concerns over global nuclear proliferation, this had nothing to do with Israel’s nuclear program. “I fear that in the absence of an agreement between the great powers on general disarmament”, Ben-Gurion wrote, “there is little doubt that these weapons will, sooner or later, find their way into the arsenals of China and then of various European states and India”. Regarding semi-annual U.S. visits to Dimona, Ben-Gurion wrote that “While we do not envisage a system of formal United States control at the Dimona reactor which the United States has not helped to establish or construct, as in the case of the reactor at Nachal Sureiq, we do agree to further annual visits to Dimona by your representatives, such as have already taken place”. The “most suitable” time for the next visit would be late 1963 or early 1964, when Dimona reached its “start-up” time and Israel’s French contractors handed over control of the reactor; all the Americans would see today was construction.²⁷⁵

The CIA, the USAEC and the ACDA warned President Kennedy that Ben-Gurion’s proposal failed to meet the minimum standards required to have any confidence in the inspections’ verdict. The U.S. could only be sure of the use to which the Dimona facility is put, if: “(1) There is a June or

²⁷⁵ Ben-Gurion’s letter to Kennedy is available at: <https://www.jfklibrary.org/Asset-Viewer/Archives/JFKPOF-119a-006.aspx>. Last accessed: May 29, 2018. For an analysis of Ben-Gurion’s letter by the State Department, see U.S. Department of State, Memorandum, from Department of State Executive Secretary Brubeck to the President’s Special Assistant for National Security Bundy, 29 May 1963, Top Secret. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v18/d258>. Last accessed: May 29, 2018.

July 1963 visit; (2) there is a June 1964 visit; (3) thereafter, visits occur every six months; (4) U.S. scientists have access to all areas of the site and any part of the complex such as fuel fabrication facilities or plutonium separation plant which might be located elsewhere; and (5) scientists have sufficient time at the site for a truly thorough examination”. The U.S. intelligence and scientific agencies were “most insistent on the need for thoroughness covered in points 4 and 5”.²⁷⁶

On June 15, Kennedy sent Ben-Gurion another scorching letter, insisting on the terms set by the CIA, the USAEC, and the ACDA. Given Ben-Gurion’s reaffirmation that Dimona would be devoted solely to peaceful purposes, Kennedy wrote that he was sure that the Israeli leader would agree that the inspections should “more nearly be in accord with international standards, thereby resolving all doubts as to the peaceful nature of the Dimona project”. Kennedy insisted that Israel should follow the inspection schedule demanded by his nuclear experts and added that U.S. scientists should “have access to all areas of the Dimona site and to any related part of the complex, such as fuel fabrication facilities or plutonium separation plant, and that sufficient time be allotted for a thorough examination”. Kennedy warned again that the United States’ “commitment to and support of Israel could be seriously jeopardized if it should be thought that we were unable to obtain reliable information on a subject as vital to peace as the question of the character of Israel’s effort in the nuclear field”.²⁷⁷

²⁷⁶ U.S. Department of State, Memorandum, from Department of State Executive Secretary Brubek, to the President’s Special Assistant for National Security Affairs Bundy, 12 June 1963, Secret. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v18/d267>. Last accessed: May 29, 2018.

²⁷⁷ U.S. Department of State, Telegram to U.S. Embassy Tel Aviv, 15 June 1963, Secret. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v18/d274>. Last accessed: May 29, 2018.

However, before Ambassador Barbour could deliver Kennedy's letter, Ben-Gurion abruptly resigned as Israel's prime minister over an unrelated domestic political scandal (the 'Lavon Affair') and Dimona suddenly became the problem of his successor, Levi Eshkol. On 5 July, less than ten days after Eshkol became prime minister, Barbour delivered a three-page letter to him from Kennedy.²⁷⁸ The letter was almost an exact copy of Kennedy's June 15 letter to Ben-Gurion. In his reply to Kennedy from August 19, Eshkol wrote that "although the assistance for the construction of the [Dimona] reactor has come from other sources, we are ready to agree to visits by United States representatives". The next visit could take place towards the end of 1963. "At that time the French group will have handed the reactor over to us and it will be undergoing general tests and a measurement of its physical parameters at zero power". However, Eshkol ensured Kennedy that "the start-up-stage will not have yet been reached". Thus, the U.S. visit would take place at the "pre-start-up stage" before the reactor went critical. As for Kennedy's demand for inspections every six months, Eshkol wrote that "I believe that we shall be able to reach agreement on the future schedule of visits". In any case, the uranium fuel to be used in the reactor was French and had to be returned to France after irradiation. But if Kennedy was skeptical, "your representatives will be enabled to observe the procedure of uranium control during their visits". Eshkol's only condition was that information obtained from future visits to Dimona should not be passed along to Arab states.²⁷⁹

Although Eshkol's response was much more positive than Ben-Gurion's, it was not entirely what the Kennedy administration had hoped for. However, the Kennedy realized that Eshkol's offer was

²⁷⁸ See U.S. Department of State, Telegram to U.S. Embassy Tel Aviv, 04 July 1963, Secret, sanitized version. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v18/d289>. Last accessed: May 29, 2018.

²⁷⁹ Eshkol's letter to Kennedy is available at: <https://www.jfklibrary.org/Asset-Viewer/Archives/JFKPOF-119a-006.aspx>. Last accessed: May 29, 2018.

the best that he could get at this time. On August 26, Kennedy sent Eshkol a vastly friendlier letter, noting that his suggestions had been “most welcome here”.²⁸⁰ Thus, Eshkol had been able to ease the tensions over Dimona because his leadership style was more flexible and less combative than Ben-Gurion’s. But Eshkol was not about to give up Israel’s nuclear-weapons program, either. He was aware that “unrestricted U.S. inspections could tear the protective veil of secrecy surrounding Dimona and bring the full weight of Kennedy’s displeasure to bear. So along with the new openness to American scrutiny necessarily came a new degree of duplicity: Israel would simply have to hide the evidence from prying American eyes and carry on with its nuclear-arms program nonetheless”.²⁸¹

3.2.4 Deception

Indeed, subsequent American inspections of Dimona found no definite evidence of a weapons program. The U.S. scientists “did not find a reprocessing plant or evidence of its existence” and they “left the site still believing it was unlikely that a reprocessing plant could be hidden on the site”.²⁸² But how come the American scientists—most of them leading experts in nuclear reprocessing—“did not find what they were not supposed to find?”.²⁸³ The *modus operandi* of the inspections explains the situation. The American inspection team would have to schedule its visits well in advance, and with the full acquiescence of Israel. There would be no spot checks permitted. Israeli officials always insisted on conducting the inspections “on Saturdays (the Jewish Sabbath) or other national holidays, when almost all the Dimona employees were gone and it was easier to

²⁸⁰ U.S. Department of State, Telegram to U.S. Embassy Tel Aviv, 26 August 1963, Secret. Available at: <https://history.state.gov/historicaldocuments/frus1961-63v18/d319>. Last accessed: June 02, 2018.

²⁸¹ Bass, *Support Any Friend*, p. 234.

²⁸² Cohen, *Israel and the Bomb*, p. 332.

²⁸³ *Ibid.*, p. 187.

control the visit”.²⁸⁴ The Israeli hosts also insisted “on spending a great deal of time allotted to the Dimona visit [in] discussing scientific projects [and thereby] limiting the time available for the team to do its necessary inspection and related activities”.²⁸⁵ The American inspectors were also not allowed “to bring [their] own measuring instruments or to collect samples of any kind”.²⁸⁶ Most importantly, however, the Israelis employed a range of deception measures to conceal the underground reprocessing plant that was essential in order to produce weapons-grade plutonium.

In the words of Leonard Spector:

The door to the stairs leading down to the subterranean plutonium plant... was bricked up for the annual US visits, so that all the US specialist saw were the innocuous two upper stories of the building. [Indeed,] even the operations of the reactor were disguised. The inspectors were not taken to the unit’s actual control room, but to a mock-up, whose meters were connected to simulators that showed the reactor to be operating at a very low power level.²⁸⁷

Israeli technicians held extensive practice sessions in the fake control room to avoid any slips when the Americans arrived. Indeed, the Israelis took no chances and even “stationed a few engineers in a concealed area in the fake control room to monitor the machinery and make sure that nothing untoward took place”.²⁸⁸ The biggest fear of the Israelis was that the U.S scientists would seek to inspect the reactor core physically, and presumably discover that the reactor was operating at a much higher power level than the acknowledged 24 megawatts. To prevent this from happening, the Israelis said from the outset that the American inspection team was not permitted to enter and physically inspect the reactor core “for safety reasons”. The Inspection team “did not question the

²⁸⁴ Ibid., p. 188.

²⁸⁵ Ibid., p. 189.

²⁸⁶ Ibid., p. 331.

²⁸⁷ Spector, L. *Nuclear Ambitions: The Spread of Nuclear Weapons, 1989-1990* (Boulder, CO: Westview, 1990), p. 154.

²⁸⁸ Hersh, *The Samson Option*, p. 111.

fact that the reactor core was off-limits and gave no sign that they were in any way suspicious of the control room”.²⁸⁹

Thus, U.S. scientists were still not allowed to access all areas of the Dimona complex and still had not enough time for a thorough examination of the areas they could access. Unfortunately, we will never know how Kennedy would have reacted to this situation (JFK was assassinated on 22 November 1963). However, Warren Bass is convinced that Kennedy’s “deep personal commitment to the cause of nuclear nonproliferation” and his suspicions about Dimona might well have led him into another showdown with Israel had he lived. Indeed, according to Bass, Kennedy was “as determined a foe of Israel’s nuclear arms program as has ever lived in the White House”; and “unlike Eisenhower, Kennedy was unapologetic about considering domestic political factors in his Middle East policy-making”.²⁹⁰

The stern tone of Kennedy’s warnings to Ben-Gurion and his less combative heir, Levi Eshkol, would have done the administration no good at all in a 1964 reelection bid if word of them had ever gotten to the Israel lobby. Kennedy does not seem to have cared... On the nuclear issue, Kennedy was not much interested in what the American Jewish community thought. It is also hard to imagine that any amount of Israeli complaint, bluster, or threat would have driven him to permanently acquiesce to the Israelis’ getting the bomb.²⁹¹

Kennedy’s successor, Lyndon B. Johnson, was more attuned than Kennedy to Israel’s security needs and was less committed than his predecessor to the policy of nonproliferation. Accordingly, Johnson “proved more willing to be convinced by the sham inspections because he had less stomach than Kennedy for an all-out slugfest over Dimona”.²⁹² Indeed, Johnson even ordered

²⁸⁹ Ibid.

²⁹⁰ Bass, *Support Any Friend*, p. 6.

²⁹¹ Ibid., p. 188.

²⁹² Ibid., p. 238.

Ambassador Barbour to stop forwarding intelligence about Israel's nuclear program to Washington and to discourage personnel at the U.S. embassy in Tel Aviv to further investigate the issue. The reason for this was simple: clear-cut evidence of an Israeli nuclear weapons program would have presented the Johnson administration, which was *publicly* opposed to the spread of nuclear weapons anywhere in the world, with an unwanted dilemma: either sanction Israel or be accused of a nuclear double standard. Indeed, when CIA Director Richard Helms informed President Johnson in 1968 that U.S. intelligence had concluded that Israel had crossed the nuclear weapons threshold, Johnson told him to make sure that nobody else was shown the evidence, including Secretary of State Dean Rusk and Secretary of Defense Robert McNamara. According to Seymour Hersh, "Johnson's purpose in chasing Helms—and his intelligence—away was clear: he did not want to know what the CIA was trying to tell him, for once he accepted that information, he would have to act on it".²⁹³

3.3 Enter Ambiguity

In this section I examine the reasons behind Israel's decision to adopt an ambiguous nuclear policy and discusses the value of such a policy vis-à-vis conventional nuclear deterrence.

3.3.1 The Birth of Strategic Nuclear Ambiguity

As mentioned above, the main reason Israel decided to develop nuclear weapons was to increase national security through nuclear deterrence. Through secrecy, denial, and deception Israel has managed to build the bomb while minimizing international frictions, especially with the United States and its Arab neighbors. However, Israel had to publicly announce, one way or the other,

²⁹³ Hersh, *The Samson Option*, p. 189.

that it had acquired nuclear weapons to make them effective deterrents. This is because a nuclear capability so secret that its potential enemies do not suspect its existence loses its value as deterrent. As Henry Kissinger put it, “No one who has nuclear weapons expects to use them; their first purpose is as a deterrent. And there is no deterrent unless the enemy is aware of it”.²⁹⁴ However, publicly declaring that it had acquired nukes, Israel would not only risk a nuclear arms race with its Arab neighbors, but also risk losing much-needed U.S. military and financial support. Hence, after solving Israel’s security dilemma by developing an existential nuclear deterrent, Israeli leaders found themselves in a ‘communication dilemma’: publicly announce Israel’s newly-found nuclear capabilities and risk losing U.S. support, or keep the Israeli bomb secret and risk another round of conflict with the Arabs.²⁹⁵

Israel’s acquisition of the bomb also posed substantial challenges to U.S. officials. They feared that world-wide knowledge of Israel’s newfound nuclear capabilities would dramatically setback U.S. nonproliferation efforts. U.S. officials were particularly worried that public knowledge of an Israeli bomb would make it impossible for the United States to convince states around the globe (especially in the Middle East) to join the newly negotiated Treaty on the Non-Proliferation of Nuclear Weapons (NPT), which had opened for signature in 1968. Thus, it was in the national interest of the United States that Israel gives up its nuclear weapons and joins the NPT as a non-nuclear weapon state (NNWS). However, U.S. leaders were convinced that Israel would never voluntarily give up its existential deterrent and that the United States was not in a position to force

²⁹⁴ The White House, Memorandum, from Henry Kissinger to President Nixon, Subject: ‘Israeli Nuclear Program’, 19 July 1969, Top Secret, excised copy. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb485/docs/Doc%2010%207-19-69%20circa.pdf>. Last accessed: July 02, 2018.

²⁹⁵ I am grateful to Michael Lestra for this insight.

Israel to do so. As then-National Security Adviser Henry Kissinger put it in a memo addressed to President Richard Nixon:

Our problem is that Israel will not take us seriously on the nuclear issue unless they believe we are prepared to withhold something they very much need—The Phantom [fighter jets] or, even more, their whole military supply relationship with us. On the other hand, if we withhold the Phantoms and they make this fact public in the United States, enormous political pressure will be mounted on us.²⁹⁶

Thus, the Nixon administration was not willing to use the only means it had to pressure Israel to give up its nuclear weapons program (withholding U.S. military aid) because it worried about domestic pressure from Jewish lobbying groups. Accordingly, Kissinger and his colleagues decided that the only objective they might achieve is to persuade Israel to keep its nuclear weapons program secret. As Kissinger explained to Nixon on 19 July 1969:

Our interest is in preventing Israel's possession of nuclear weapons. But since we cannot—and may not want to try to—control the state of Israel's nuclear program and since Israel may already have nuclear weapons, the one objective we might achieve is to persuade them to keep what they have secret. This would meet our objective because the international implications of an Israeli program are not triggered until it becomes public knowledge.²⁹⁷

Indeed, it was this distinction established by Kissinger between public and secret possession of nuclear weapons that became the basis upon which a historic pact between U.S. President Richard Nixon and Israeli Prime Minister Golda Meir was struck on 26 September 1969. The U.S. agreed to halt its annual inspections of the Dimona nuclear reactor and to stop pressuring Israel to sign the NPT. In exchange, Israel committed itself to keep the fact that it possesses nuclear weapons

²⁹⁶ The White House, Memorandum, from Henry Kissinger to President Nixon, Subject: 'Israeli Nuclear Program', 19 July 1969, Top Secret, excised copy. Available at: <https://nsarchive2.gwu.edu/nukevault/ebb485/docs/Doc%2010%207-19-69%20circa.pdf>. Last accessed: July 02, 2018.

²⁹⁷ Ibid.

secret and refrain from conducting nuclear tests or threatening any other state with its newfound nuclear capability.²⁹⁸

However, while this deal enabled Israel to keep its nuclear weapons, it has intensified its communication dilemma, since Israel had now formally (albeit secretly) committed itself to keep its nuclear weapons ‘in the basement’. Israeli policy makers reacted to this dilemma by adopting a policy of ‘strategic nuclear ambiguity’. This policy has three major components. The first is *secrecy*: Just as promised to the Americans, Israel would keep any information regarding its nuclear weapons program top secret and refrain from openly testing or publicly declaring its nuclear weapons.²⁹⁹ The second component is *signaling*. As Zeev Maoz explains, “through a series of leaks and veiled statements, the spread of rumors, and other political actions (e.g., refusal to sign the NPT), Israel would bolster its nuclear image—an image comprising indirect evidence of an existing nuclear capability and hints of a deterrence doctrine”.³⁰⁰ In December 1974, for example, Israel’s President Efraim Kazar told a meeting of American and European science writers in Jerusalem that “it has always been our intention to develop a nuclear potential. We now have that potential”.³⁰¹ In 1981, former Defense Minister Moshe Dayan made a similar statement, saying that “We don’t have any atomic bomb now, but we have the capacity, we can do that in a short time”.³⁰² In 2006, Prime Minister Ehud Olmert ‘accidentally’ included Israel in a list of

²⁹⁸ Cohen, *The Worst-Kept Secret*, pp. 24-28.

²⁹⁹ Some analysts suspect, however, that Israel conducted a secret nuclear weapon test in 1979. See Wright, C. M. & De Geer, L. ‘The 22 September 1979 Vela Incident: The Detected Double-Flash’, *Science & Global Security*, vol. 25, no. 3 (2017), pp. 95-124; and Weiss, L. ‘Israel’s 1979 Nuclear Test and the U.S. Cover-Up’, *Middle East Policy*, vol. 18, no.4 (2011), pp. 83-95.

³⁰⁰ Maoz, Z. ‘The Mixed Blessings of Israel’s Nuclear Policy’, *International Security*, vol. 28, no. 2 (2003), p. 47.

³⁰¹ Quoted in Freedman, L. ‘Israel’s Nuclear Policy’, *Survival: Global Politics and Strategy*, vol. 17, no. 3 (1975), p. 114.

³⁰² Quoted in Kristensen, H. M. & Norris, R. S. ‘Israeli nuclear weapons, 2014’, *Bulletin of the Atomic Scientists*, vol. 70, no. 6 (2014), p. 99.

countries possessing nuclear weapons when he criticized Iran for aspiring “to have nuclear weapons, as America, France, Israel, [and Russia]”.³⁰³ These statements increased speculation abroad that Israel might be possessing nuclear weapons, yet did so in an indirect way that did not compromise official secrecy.³⁰⁴ As former Israeli President Shimon Peres put it in a public speech in 2011, “For years no one knew exactly what was going on in Dimona. People guessed but they didn’t know for a fact, and imagination was a sufficient deterrent”.³⁰⁵ The last component of Israel’s nuclear ambiguity policy is *non-acknowledgment*. As mentioned above, since the mid-1970s Israeli leaders would indirectly hint at the existence of a nuclear arsenal through signaling. However, when asked directly if Israel possessed nuclear weapons, Israeli leaders would invoke the mantra that “Israel will not be the first country to introduce nuclear weapons into the Middle East”, which is tantamount to Israel neither confirming nor denying whether it possesses nuclear weapons.³⁰⁶ For example, when asked during a 2011 CNN interview whether Israel was a nuclear-weapon state, Prime Minister Benjamin Netanyahu did not deny that Israel had nukes but only said, as many Israeli prime ministers before him, that “We won’t be the first to introduce nuclear weapons into the Middle East”.³⁰⁷

³⁰³ Quoted in *Ibid.*, p. 100.

³⁰⁴ See Dowty, A. ‘Nuclear Proliferation: The Israeli Case’, *International Studies Quarterly*, vol. 22, no. 1 (1978), p. 113.

³⁰⁵ Quoted in Cashman, G. F. ‘Speculation of Israel’s Nuclear Arms Deters Iran’, *The Jerusalem Post*, 27 December 2011. Available at: <http://www.jpost.com/Iranian-Threat/News/Speculation-of-Israelis-nuclear-arms-deters-Iran>. Last accessed: February 28, 2018.

³⁰⁶ Raz, A. ‘The Routinization of Nuclear Ambiguity’, *INSS Strategic Assessment*, vol. 18, no. 4 (January 2016), pp. 29-41.

³⁰⁷ Netanyahu, B. ‘Interview with PM Netanyahu on CNN – Piers Morgan Tonight’, 17 March 2011. Available at: http://mfa.gov.il/MFA/PressRoom/2011/Pages/Interview_PM_Netanyahu_CNN_17-Mar-2011.aspx. Last accessed: April 12, 2018.

Why is Israel's nuclear strategy considered to be ambiguous?³⁰⁸ According to the Oxford Dictionary, "ambiguity is the quality of being open to more than one interpretation".³⁰⁹ Israel's 'No First Introduction (NFI)' posture can be interpreted in at least two ways. One possible interpretation is that Israel stopped short of manufacturing the bomb but developed a 'latent' or 'virtual' nuclear capability (the technical capacity to build and test one quite quickly). An alternative interpretation is that Israel manufactured nuclear weapons but it refrains from openly testing or publicly declaring them.³¹⁰ In short, the 'introduce' language used by Israeli officials in dealing with the nuclear issue is purposefully vague to create a certain level of ambiguity regarding Israel's nuclear capabilities and intentions. This policy of strategic or deliberate ambiguity is seen as a way of creating a nuclear deterrent, without making it (too) explicit, a position that could invite sanctions or encourage an arms race in the Middle East.³¹¹ As the Israeli military analyst Reuven Pedatzur put it:

The advantages of nuclear ambiguity were numerous. Deterrence was attained without any need to openly threaten the use of weapons whose existence Israel has never acknowledged; American and international sanctions, which would have been imposed had Israel openly declared the existence of nuclear arms or conducted nuclear tests, were sidestepped; Israel was seen around the world as being a responsible state, with level-headed leadership – this prevented the exertion of pressure on Israel to disarm, as is the case for Iran and North Korea.³¹²

³⁰⁸ An alternative image for nuclear ambiguity has been 'opacity'. According to Shlomo Aronson, "The adjective 'opaque' is derived from physics. In this context, it can be used to describe what happens when one looks at an object through a certain type of crystal. Depending upon how you hold the crystal, you might not see the object clearly—it will be distorted. But if you hold the crystal 'properly', you will see the object very clearly indeed". Aronson, S. *The Politics and Strategy of Nuclear Weapons in the Middle East: Opacity, Theory, and Reality, 1960–1991: An Israeli Perspective* (Albany, NY: SUNY Press, 1992), p. ix.

³⁰⁹ Oxford Online Dictionary, 'Ambiguity'. Available at:

<http://www.oxforddictionaries.com/definition/english/ambiguity>. Last accessed: April 12, 2018.

³¹⁰ See Krepon, M. 'An Introduction to Non-Introduction', *Arms Control Wonk*, 24 July 2009. Available at: <http://www.armscontrolwonk.com/archive/402397/an-introduction-to-non-introduction/>. Last accessed: April 12, 2018.

³¹¹ Cochran, E. S. 'Deliberate Ambiguity: An Analysis of Israel's Nuclear Strategy', *Journal of Strategic Studies*, vol. 19, no. 3 (1996), pp. 321-42.

³¹² Pedatzur, R. 'Nuclear Neighborhood Bully', *Ha'aretz*, 14 October 2003. Available at: <https://www.haaretz.com/1.4719999>. Last accessed: April 13, 2018.

3.3.2 The Birth of Bombing Ambiguity

As a result of Israel's nuclear ambiguity policy, international and regional perceptions of Israel's status as de facto nuclear-weapon state became less opaque during the 1970s and 1980s.

While Arab responses to Israel's nuclear weapons program during this time varied, "the most frequent Arab rhetorical response to potential Israeli acquisition of nuclear weapons was to threaten that this would lead the Arabs do the same".³¹³ In 1974, for example, Egyptian President Anwar Sadat warned that "if Israel intends to introduce nuclear weapons into the area, we too will find a way of acquiring such weapons". Also in 1974, Foreign Minister Nabil Fahmy told the U.S. Senate Foreign Relations Committee that "it must be completely understood that should Israel produce nuclear weapons, Egypt will have the right to acquire this weapon in order to maintain her strategic integrity". Likewise, Syrian President Hafez Assad declared in 1977 that "If Israel possesses this weapon, then we will possess it [also]".³¹⁴

Israeli leaders reacted to these threats by modifying Israel's nuclear ambiguity policy. In the late 1970s, Foreign Minister Yigal Allon complemented the 'No First Introduction (NFI)' formula by declaring that "Israel would also not be the second to introduce nuclear weapons into the Middle East".³¹⁵ Allon's declaration was the foundation of the so-called 'Begin Doctrine', according to which Israel would pre-empt any regional attempt to develop nuclear weapons. This policy was based on the assumption that it would be impossible to maintain a deterrence regime based on

³¹³ Cochran distinguishes between four different types of Arab responses: "(1) attempts to gain nuclear weapons or a nuclear security guarantee from the Soviet Union; (2) development of chemical and biological weapons as a counter to Israel's nuclear weapons; (3) demands that Israel accede to the NPT; and (4) threats to develop their own nuclear weapons". Cochran, 'Israel's Nuclear History', p. 142.

³¹⁴ Cochran, 'Israel's Nuclear History', p. 144.

³¹⁵ Quoted in Raz, A. 'The Value of Nuclear Ambiguity in the Face of a Nuclear Iran', *INSS Strategic Assessment*, vol. 14, no. 3 (October 2011), p. 19.

mutually assured destruction (MAD) between Israel and its regional adversaries. Given Israel's small size and high population density, Israeli leaders believed that a few Hiroshima-type bombs would suffice to destroy Israel. Because of this strategic constraint imposed by Israel's geography the Arabs, once they have acquired nuclear weapons, might be tempted to use them.³¹⁶ Indeed, in 2001 Iranian President Ali Akbar Rafsanjani reminded Israel about its strategic disadvantage vis-à-vis surrounding states by saying that "The use of a nuclear bomb against Israel will leave nothing on the ground, whereas it will only damage the world of Islam".³¹⁷

The Begin Doctrine was first applied on 7 June 1981, when eight Israeli F-16 jet fighters attacked and destroyed Iraq's nearly completed Osiraq nuclear reactor at al-Tuweitha, about 25 kilometers southeast of Baghdad. Two days later, in a press conference in Tel Aviv, Israeli Prime Minister Menachem Begin took full responsibility for the operation and justified it as an act of "anticipatory self-defense at its best".³¹⁸ At the end of the conference, Begin made clear that the raid on the Osiraq reactor was not a one-time operation but rather a long-term national commitment:

We chose this moment: now, not later, because later may be too late, perhaps forever. And if we stood by idly, two, three years, at the most four years, and Saddam Hussein would have produced his three, four, five bombs... Then, this country and this people would have been lost, after the Holocaust. Another Holocaust would have happened in the history of the Jewish people. Never again, never again! Tell so your friends, tell anyone you meet, we shall defend our people with all the means at our disposal. We shall not allow any enemy to develop weapons of mass destruction turned against us.³¹⁹

³¹⁶ Cohen & Miller, 'Bringing Israel's Bomb Out of the Basement', p. 30.

³¹⁷ Quoted in Cohen, *The Worst-Kept Secret*, p. XXI.

³¹⁸ Quoted in Spector, L. S. & Cohen, A. 'Israel's Airstrike on Syria's Reactor: Implications for the Nonproliferation Regime', *Arms Control Today*, vol. 38, no. 6 (July/August 2008), p. 16.

³¹⁹ Quoted in *Ibid.*

However, the international community did not share Begin's view. On the contrary, the Israeli attack against Iraq's Osiraq reactor met with near universal condemnation, including from the United States and many Arab countries as well as international organizations such as the U.N. Security Council (UNSC), the U.N. General Assembly, and the IAEA Board of Governors. The reason for this was simple: Iraq was an NPT member state and the Osiraq reactor was openly purchased from France, declared, and closely supervised by the IAEA. Therefore, Israel's raid on the reactor was conceived as a direct attack on the global nuclear nonproliferation regime. In the raid's immediate aftermath, the Director General of the IAEA, Sigvard Eklund, stated that "the Israeli attack on Iraq's nuclear research center was also an attack on the Agency's safeguards". In a parallel fashion, the UNSC stated that the Israeli raid "constituted a serious threat to the entire IAEA safeguards regime which is the foundation of the nonproliferation treaty".³²⁰

Nonetheless, the Begin Doctrine was followed on 6 December 2007 under Prime Minister Ehud Olmert when, in a surprise dawn attack, seven Israeli warplanes destroyed Syria's secret nuclear reactor near al-Kibar. While this attack was almost identical to Israel's 'preventive' strike in 1981 against Iraq's Osiraq reactor, international and regional repercussions were strikingly different. This time, virtually no state condemned the Israeli strike against Syria's reactor. One reason for lack of criticism was the nature of Syria's nuclear program. As Leonard Spector and Avner Cohen explain:

In contrast to the Osiraq reactor, which was openly purchased from France, declared, and subject to IAEA monitoring, the Syrian reactor was secretly built with North Korean aid, undeclared, deliberately concealed, and not subject to IAEA safeguards. These differences in themselves made the Syrian

³²⁰ Quoted in Feldman, S. 'The Bombing of Osiraq-Revisited', *International Security*, vol. 7, no. 2 (Fall, 1982), p. 114.

reactor, once revealed, immediately suspect and lent an element of credibility to Israel's underlying concerns about the installation.³²¹

However, Spector and Cohen stress that Syria's al-Kibar reactor did not pose an imminent threat to Israel:

Given that the al-Kibar reactor had not started to operate and Syria's fuel fabrication and reprocessing facilities had not been discovered and might not yet have been completed, Syria was unquestionably some time away from producing fissile material for nuclear weapons and still further from producing the weapons themselves. Thus, few could argue that Israel met the traditional necessity/imminence standard in the case of the al-Kibar reactor strike.³²²

The Israeli attack also was not criticized by any of the Arab states. In a stunning contrast with developments in 1981, no Arab government commented on the Israeli raid, much less pressed for retaliation against Israel, diplomatic or otherwise. Spector and Cohen argue that "The restraint may have reflected the fact that many Arab governments were not displeased that a possible clandestine Syrian nuclear weapons effort had been dealt a serious setback".

However, the most striking difference between the Iraqi and Syrian bombings was Israel's behavior in the aftermath of the bombings. In contrast to the 1981 strike against the Iraqi reactor, Israel said nothing after the 2007 attack and imposed a tight and unprecedented news blackout on the Israeli press regarding the episode. When asked directly about the incident, Israeli leaders would neither confirm nor deny the bombing. This pattern of ambiguity continued even after a CIA video and briefings were published on 24 April 2008, which disclosed that Israel had attacked the Syrian nuclear reactor in a preventive strike. Indeed, this was the birth of a second Israeli

³²¹ Spector & Cohen, 'Israel's Airstrike on Syria's Reactor', p. 5.

³²² Ibid.

ambiguity policy, which Aluf Benn, Editor-in-Chief of *Ha'aretz* newspaper, calls 'bombing ambiguity'. In a November 2015 discussion in Tel Aviv, Benn explained me the logic of this policy in the following way:

So, there is the nuclear ambiguity policy that you are researching and in recent years Israel has also adopted a policy that we [Israeli journalists] call 'bombing ambiguity'. What do we mean? The Israeli Air Force occasionally destroys critical targets across the border in countries like Iraq, Syria, Lebanon and so on... The other side obviously knows about these bombings because a building has been destroyed or someone has been killed... However, Israeli officials neither boast about the attack, nor do they take credit for it. Instead, they keep a low profile and neither confirm nor deny the bombing... The logic behind this is, if you take credit for the attack, or even boast about it, you are prompting the other side to try to retaliate. However, if you keep quiet, then the other side could pretend as if the incident didn't happen.³²³

Indeed, in the immediate aftermath of the 2007 Israeli strike against the al-Kibar reactor, Syrian officials denied that such an attack happened and complained only that Israeli aircraft had violated its airspace and dropped some explosive charges in a remote, desolate area. Two weeks later, Syrian President Bashar al-Assad confirmed in an interview with the BBC that an "unused military building" was attacked by Israel but provided no details.³²⁴

Between 2010 and 2013, the policy of bombing ambiguity, or 'ambiguous preemption'³²⁵ had been applied in yet another version on Iran. During this time, the Mossad (Israel's external intelligence agency), with the support of Iranian dissident groups like the Mujahedeen-e-Khalq (MEK), has assassinated at least five Iranian nuclear scientists, in an effort to delay Iran's alleged military nuclear program as well as to deter the country's top scientific minds from cooperating with the

³²³ Interview with Aluf Benn, Editor-in-Chief of *Ha'aretz*, 30 November 2015.

³²⁴ 'Assad sets conference conditions', *BBC News*, 01 October 2007. Available at: http://news.bbc.co.uk/2/hi/middle_east/7021986.stm. Last accessed: April 05, 2018.

³²⁵ Landau, E. B. 'Ambiguous Preemption', *The Reut Institute*, 29 November 2007. Available at: <http://reut-institute.org/en/Publication.aspx?PublicationId=2748>. Last accessed: April 05, 2018.

government's nuclear project.³²⁶ Israel's assassination campaign was terminated in 2013 following diplomatic pressure from the Obama administration, which was attempting to negotiate restrictions on Iran's nuclear activities.³²⁷

While Israel has never officially acknowledged, nor denied its involvement in the assassinations of Iranian nuclear scientists, Israeli Defense Minister Moshe Ya'alon, in an interview with the German newspaper *Der Spiegel* in 2015, not only indirectly confirmed that Israel was behind the killings, but also hinted that Israel could resume assassinations of Iranian nuclear scientists if Iran's march to a nuclear weapon continues. Ya'alon condemned the Iran deal, arguing that "The way the negotiations had been managed by the five permanent members of the U.N. Security Council and Germany was a historic mistake. Now we have a deal which is going to allow Iran to become a military nuclear threshold state. In a decade or so, they'll be allowed to enrich uranium without any restrictions". Ya'alon contended that "Ultimately it is very clear, one way or another, Iran's military nuclear program must be stopped... We will act in any way and are not willing to tolerate a nuclear-armed Iran. We prefer that this be done by means of sanctions, but in the end, Israel should be able to defend itself". When asked whether Iran would see further deaths of its nuclear scientists, he told the newspaper "We should be ready to defend ourselves. I'm not responsible for the lives of Iranian scientists".³²⁸

³²⁶ Cockburn, P. 'Just who has been killing Iran's nuclear scientists?', *The Independent*, 05 October 2013. Available at: <http://www.independent.co.uk/voices/comment/just-who-has-been-killing-irans-nuclear-scientists-8861232.html>. Last accessed: January 17, 2018.

³²⁷ 'US pressuring Israel to stop killing Iran nuclear scientists', *The Jerusalem Post*, 02 March 2014. Available at: <http://www.jpost.com/Diplomacy-and-Politics/US-pressuring-Israel-to-stop-killing-Iran-nuclear-scientists-343977>. Last accessed: January 17, 2018.

³²⁸ Ya'alon, M. 'Interview with Moshe Ya'alon', *Der Spiegel*, 07 August 2015. Available at: <http://www.spiegel.de/international/world/israeli-defense-minister-moshe-yaalon-critizes-iran-deal-a-1047260.html>. Last accessed: January 17, 2018.

3.4 Conclusion

The main reason Israel decided in the early 1950s to develop a nuclear weapons program was to increase national security through nuclear deterrence. Israeli leaders were convinced that only the bomb would deter Arab states from efforts to destroy Israel and ensure that no other *Shoah* could ever happen again to the Jewish people. The United States discovered the Dimona construction site already in 1958; however, it refrained from openly confronting Israel over Dimona, and instead adopted a cautious approach, which enabled Israel to complete construction of the basic facilities in Dimona sometime around 1960-61. The general conviction within the Eisenhower administration was that Israel's quest for an existential deterrent is justified, with the Holocaust certainly having an important emotional role in the formulation of America's attitude. United States' nonproliferation policy towards Israel changed radically when John F. Kennedy was sworn into office in January 1961. Right from the start of his presidency, Kennedy pushed for inspections of the Dimona nuclear complex. The Israelis initially refused to allow inspections of their nuclear facilities; however, when Kennedy threatened to withhold American military and financial support to Israel, the Israelis agreed to inspections by a group of U.S. experts. However, through a range of deception measures Israel managed to continue to work on its nuclear weapons program even in spite of such inspections, and by the time of the Six-Day War, in June 1967, managed to secretly cross the nuclear weapons threshold. Nevertheless, Israel had to publicly announce, one way or the other, that it had acquired nuclear weapons to make them effective deterrents. This is because a nuclear capability so secret that its potential enemies do not suspect its existence loses its value as deterrent. However, publicly declaring that it had acquired nukes, Israel would not only risk a nuclear arms race with its Arab neighbors, but also invite outside interference by the (embryonic) nonproliferation regime (in the form of economic sanctions, loss of U.S. support, etc.). Israeli policy makers reacted to this communication dilemma by adopting a policy of strategic nuclear

ambiguity. On the one hand, they were hinting at the existence of a nuclear arsenal through a series of leaks and veiled statements, the spread of rumors, and other political actions (e.g., refusal to sign the NPT). However, when directly asked about Israel's nuclear capabilities, Israeli leaders would insist that "Israel will not be the first country to introduce nuclear weapons into the Middle East", which is tantamount to Israel neither confirming nor denying whether it possesses nuclear weapons. In the following chapter, I analyze how the Israeli government is enforcing nuclear ambiguity at the domestic level.

CHAPTER 4: “ACCORDING TO FOREIGN SOURCES”: ISRAEL’S AMBIGUOUS NUCLEAR GOVERNMENTALITY AND THE MEDIA

What is so perilous, then, in the fact that people speak, and that their speech proliferates. Where is the danger in that? Here then is the hypothesis I want to advance, tonight, in order to fix the terrain – or perhaps the very provisional theatre – within which I shall be working. I am supposing that in every society the production of discourse is at once controlled, selected, organized, and redistributed according to a certain number of procedures, whose role is to avert its powers and its dangers, to cope with chance events, to evade its ponderous, awesome materiality.

Michel Foucault³²⁹

Israelis are banned from talking about Israel’s nuclear weapons as a fact; instead the topic can be discussed only as imagery, as speculation, an estimate, a quote, as something attributed to a foreign source. There are no facts, not even those known to everyone; there are only estimates and images. This is absurd: Relating to Israel’s bomb is prohibited, while, on the other hand, the entire world knows about it as a fact. Because if the weapon were a secret, it would have no deterrent value.

Avner Cohen³³⁰

Avner Cohen’s seminal book *The Worst-Kept Secret: Israel’s Bargain with the Bomb* remains the only study that examines how nuclear ambiguity is enforced at the domestic level. In a section entitled ‘The Infrastructure of Amimut’, Cohen discusses the workings of the three-layered institutional framework that controls domestic public discourse on the ‘nuclear issue’ (Israel’s nuclear weapons program and policies) in Israel. At the core of this framework is the Israel Atomic Energy Commission (IAEC), the institution that has overall responsibility for Israel’s nuclear affairs. It is here where most of Israel’s atomic secrets are created. The IAEC “is under the government’s orders. But because of the enormous amount of information it holds, it also advises the prime minister, and on the basis of its recommendations, policy is made”.³³¹ This core is

³²⁹ Foucault, M. *The Archeology of Knowledge and the Discourse on Language* (New York: Pantheon Books, 1972 [1969]), p. 216.

³³⁰ Quoted in Sheizaf, N. ‘Clear and Present Danger’, *Ha’aretz*, 29 October 2010. Available at: <http://www.haaretz.com/israel-news/clear-and-present-danger-1.321772>. Last accessed: December 18, 2017.

³³¹ Melman, Y. ‘For Now, Stay Ambiguous’, *Ha’aretz*, 17 May 2010. Available at: <https://www.haaretz.com/1.5121581>. Last accessed: February 19, 2018.

wrapped in a second layer, the Office of Security for the Israeli Defense Establishment (or MALMAB, in its Hebrew acronym).³³² The MALMAB is a security and intelligence organization within the Israeli Ministry of Defense that is responsible for “securing the ministry, the Israeli weapons industry, and the entities in Israel responsible for the development and manufacture of weapons of mass destruction as well as the systems for evading such weapons, including the Nuclear Research Centre [in Dimona], the Centre for Biological Research, and various units of the Israeli Defense Forces dealing in these issues”.³³³ Within this framework, the top priority of the MALMAB is to guard Israel’s nuclear secrets and preserve nuclear ambiguity.³³⁴

Equivalents of the IAEC and the MALMAB can be found in every nuclear-armed democracy. What makes Israel’s nuclear bureaucracy truly unique is the third and final protective layer, the Office of the Military Censor, a military censorship institution commonly known in Israel as the ‘Censora’. The main task of the Censora is to enforce a law which prohibits Israeli publications to refer directly to the nation’s nuclear weapons (publications may refer to them only by quoting ‘foreign sources’) by banning any material that fails to conform to this requirement. The Censora’s legal authority and scope are almost limitless. As Cohen explains:

Virtually any media item about Israel’s defense and foreign affairs is required to be submitted to the Censora for prepublication review, not only the print and electronic media (including foreign media based in Israel) but also any books (even fiction), professional newsletters, and even postings on the Internet... Israel’s nuclear issue remains the most highly scrutinized subject of all.³³⁵

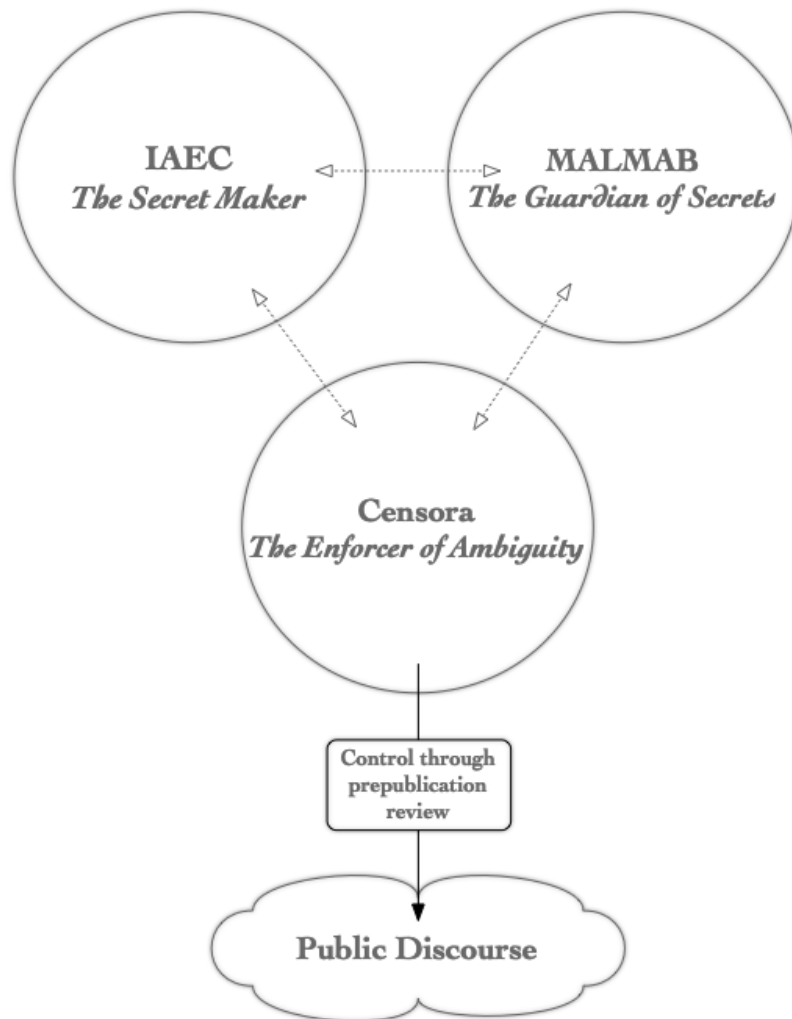
³³² The full title of this unit is not known exactly on account of its hypersecrecy. The closest possible Hebrew phrase for this acronym is Memuneh Al Ha’Bitahon Be’ Ma’arekhet Ha’Bitahon. See Kahana, E. *Historical Dictionary of Israeli Intelligence* (Lanham, MD: Scarecrow Press, 2006), p. 78. English translations also differ substantially. The translation used in this chapter is from Cohen, A. *The Worst-Kept Secret: Israel’s Bargain with the Bomb* (New York: Columbia University Press, 2010).

³³³ Kahana, E. & Sharfman, D. ‘Misuse of power in Israeli intelligence’, *Israel Affairs*, vol. 20, no. 1 (2014), p. 63.

³³⁴ Oren, A. ‘A Secret Guard for Nuclear Ambiguity’, *Ha’aretz*, 07 August 2007. Available at: <https://www.haaretz.com/1.4959630>. Last accessed: February 20, 2018.

³³⁵ Cohen, *The Worst-Kept Secret*, p. 113.

Figure 4.1 Three-layered Institutional Framework Governing Israel's National Nuclear Discourse



However, Cohen argues that the Censora does not have to make use of its amazing legal powers because the majority of Israelis has no interest in public discussion of the nuclear issue. Within Israel, Cohen contends, the nuclear issue has evolved into an all-encompassing societal taboo that has been adopted and perpetuated by the Israeli public of its own free will.

In the following, I challenge Cohen's argument that there is a powerful 'nuclear taboo' in Israel that works to repress nuclear bomb talk. To the contrary, I argue that since the mid-1970s there has been a continuous discursive growth on the nuclear topic in Israel, with a veritable discursive explosion in the last twenty years. However, this discourse did not come into being and grew apart from or against power, but in the very space and as the means of its exercise. From the beginning, the process of transforming the Israeli bomb into public discourse was closely monitored by Israel's nuclear bureaucracy (IAEC, MALMAB, Censora) and regulated in such a way as to fashion a national nuclear discourse that is in line with the country's official ambiguity policy. The main aim of this chapter is to explore how this is being done through the case study of the Israeli media.

The remainder of this chapter will proceed in three parts. In part one, I examine how Israel's nuclear bureaucracy governed public nuclear discourse in the pre-ambiguity period, noting that during this time the IAEC and MALMAB used the Censora to ban any reference to Israel's nuclear project in public discourse. However, in part two, I show that since the mid-1970s, when Israel adopted a policy of strategic nuclear ambiguity, there has been a steady relaxation of censorship regarding the nuclear issue, which gave Israelis unprecedented freedoms to write about their country's nuclear program. The main change was that Israelis were free to write about the nuclear issue, provided that they quote foreign media sources in any factual reference to the Israeli nuclear program. Contrary what Cohen claims, I show that Israeli journalists, academics, and other nuclear experts have used the new regulation to write about almost every possible aspect of Israel's nuclear project. In the last part of the chapter, I examine why the Israeli authorities continue to insist on

the ‘according-to-foreign-sources rule’, how they enforce it at the domestic level, and how this is being resisted by a small group of Israeli journalists.

4.1 Military Censorship, the Media, and the Israeli Bomb

Today Israel is the only nuclear-armed democracy that maintains an active military censorship institution. Indeed, the Censora is the key to understanding how Israel’s nuclear and security elites govern the country’s public nuclear discourse. However, in order to fully understand how the IAEC and MALMAB utilize the Censora, it is crucial to first investigate the relationship between the Censora and the Israeli media in more detail, as it precedes the advent of the Israeli bomb and the policy of nuclear ambiguity.

4.1.1 The Censora’s Heyday, the Media, and the Nuclear Issue

Shortly after Israel declared independence in 1948, it has adopted the British ‘Defense (Emergency) Regulations’ of 1945. These regulations empowered the Censora with the legal authority to ban any publication considered as “possibly jeopardizing the defense of Israel, or public peace and order” without providing any reason for the ban. Prepublication submission of “anything authored by anyone which may possibly affect the state’s security in any way” was mandatory, and penalties for violations were severe and immediate.³³⁶ In the event of non-compliance, the Censora was entitled to close newspapers (either for limited or indefinite periods) and to confiscate their printing equipment, as was done in August 1948 when the Censora shut down two newspapers for a few days for censorship violations.

³³⁶ Shahak, I. *Open Secrets: Israeli Nuclear and Foreign Policies* (London: Pluto Press, 1997), p. 16.

It begs the question, how could the Hebrew press function at all under such strict censorship laws? According to Israel Shahak, the answer lies in the fact that the ‘Defense (Emergency) Regulations’, which bestowed the Censura with virtually limitless legal powers, were adopted by the understanding “that they were to be applied mainly against the Arabs, whereas the Jews were not hindered by censorship from political debate and criticism of the government, no matter how truculent”.³³⁷ This informal understanding was later institutionalized in an agreement, first signed in 1951 and amended in 1966, between the Censura and the so-called ‘Editors’ Committee’, which represented the bulk of the Hebrew press, though no Arab newspaper was included. According to this agreement:

1. The sole purpose of the censorship committee is to prevent publications of security-related information apt to help the enemy or prejudice the defense of Israel.
2. Censorship will not be applied to political arguments, opinions, comments, evaluations or any other contents, except when they contain, or can involuntarily disclose some security-related information.
3. Censorship is to rely on cooperation of the army authorities with the Israeli press aiming at meeting the purpose defined in section 1.³³⁸

The remainder of the agreement set the terms of the cooperation between the two parties to it, with the aim of ensuring its smooth functioning. First, the agreement listed sixty-eight security-related subjects that required the Censura’s prepublication review, while everything else could be freely discussed. Second, the agreement included a mechanism to settle disputes between the Censura and the press without resorting to the public court system. From now on both the newspapers and the Censura were obliged to submit a disputed issue to a ‘censorship committee’ comprised of an army representative, a newspapers’ representative, and a representative of the public. This arrangement ensured a way to settle disputes between the Censura and the press secretly “within

³³⁷ Ibid., p. 17.

³³⁸ Ibid.

the family”.³³⁹ Another key feature of the deal was its elitist undertone: “the editors enjoyed exclusive access to privileged information—they often received confidential briefings from the prime minister or the minister of defense—but this information was not to be shared with the public”.³⁴⁰ In short, Hebrew newspapers voluntarily agreed with censorship in the hope to operate under comfortable and privileged conditions, at the cost of renouncing their right to appeal against any censorship decisions to the Supreme Court as well as imposing hardships on Arab papers outside of the 1966 agreement.

Nevertheless, the newly gained ‘relative freedom’ turned out to be illusive. The most problematic aspect of the 1966 agreement was that the meaning of the phrase “security-related information” was very broad and open to interpretation. This enabled the Israeli defense establishment to widen the meaning of security to cover topics whose bearing upon national security was most tenuous, such as immigration or the country’s oil trades.³⁴¹ Once an issue was successfully securitized, it was put on the ever-expanding list of topics that required the Censora’s prepublication review.³⁴² Furthermore, disputes over what constituted a threat to national security and what not could not be won by the press by appealing to the censorship committee because no ruling of the committee was binding, unless the Commander-in-Chief of the Israel Defense Forces (IDF) approved it. In short, the 1966 agreement between the Censora and the Hebrew press rested on the notion that (1) the security of the state was the overriding value, compared to which freedom of the press and the

³³⁹ Cohen, *The Worst-Kept Secret*, p. 111.

³⁴⁰ *Ibid.*, p. 112.

³⁴¹ Interview with Yossi Melman, 10 December 2015. See also Shahak, *Open Secrets*, p. 17.

³⁴² I use the term securitization in the sense of the Copenhagen school of security studies. See especially Buzan, B., Wæver, O. & Wilde, J. *Security: A New Framework for Analysis* (London: Lynne Rienner, 1998).

public's right to be informed were something marginal; and (2) that it is ultimately the Israeli defense establishment that decides what constitutes a threat to national security and what not.³⁴³

The nuclear issue was, of course, one of the topics that required the Censora's prepublication review. From 1958 until the late 1960s, when Israel pursued a policy of total nuclear secrecy, the IAEC and MALMAB used the Censora to ban any reference to Israel's nuclear project in the Israeli media. In those early years, the Censora's policy was very simple: "all factual items on the nation's nuclear program were considered secret and therefore had to be censored".³⁴⁴ For example, in the spring and summer of 1963 the Censora prohibited reporting about U.S. President John F. Kennedy's correspondence with Prime Ministers David Ben-Gurion and Levi Eshkol over the nuclear issue, leaving the Israeli public ignorant of Kennedy's nuclear ultimatum to Israel. Indeed, even indirect mention of Israel's nuclear project was prohibited during this time, because it made Israel's nuclear option too visible. For instance, in 1968 Uri Avnery, the editor of the Israeli news magazine *Ha'olam Hazeh* ('This World', which no longer exists), wanted to reprint an article on Israel's nuclear program that had appeared in the Parisian news weekly *L'Express*, but the Censora refused him permission to do so.³⁴⁵

It is remarkable, however, that up until the mid-1970s the Censora often did not had to rely on formal bans to silence the press, a 'friendly request' of the chief censor to the newspapers' editors to refrain from publishing particular news items sufficed.³⁴⁶ The underlying willingness of the

³⁴³ Shahak, *Open Secrets*, p. 18.

³⁴⁴ Cohen, *The Worst-Kept Secret*, p. 113.

³⁴⁵ For more examples, see Cohen, Y. 'Nuclear Ambiguity and the Media: The Israeli Case', *Israel Affairs*, vol. 12, no. 3 (July 2006), pp. 531-32.

³⁴⁶ Shahak, *Open Secrets*, p. 15.

Israeli media to accept official defense doctrines reflected an attitude that “the military knows best”, which pervaded Israeli society in the state’s earlier years.³⁴⁷ Israeli journalists, like the rest of the society, trusted the judgment of the defense establishment whose prestige stood in 1967-73 at its peak. As Shahak put it, “unquestioning compliance [with military censorship] was by and large voluntary, compensated by extraordinary military triumphs and easy conquests”.³⁴⁸

4.1.2 The Censor’s Demise, the Media, and the Nuclear Issue

However, the Israeli media’s ‘subservience’ began to change after the Yom Kippur War, which was characterized by a failure of the Israeli defense establishment to predict the outbreak of the Egyptian-Syrian coordinated attack on 6 October 1973.³⁴⁹ Israeli military intelligence assessed the massing of Egyptian-Syrian troops on the cease-fire lines prior to the attack as devoid of all significance and asked editors not to publish reports concerning the troop concentrations lest the news upset Israelis unduly on the eve of the Yom Kippur holy day. Most editors acceded to the request while others were silenced by the Censor. As a result, the Arab coalition’s joint attack, which put Israel’s security—and even survival—in jeopardy, not only took the Israeli army by surprise but also the public. This weakened public confidence in the military leadership and marked the beginning of the yearning of Israelis for more information about the army’s activities.³⁵⁰ Israeli journalists became more challenging and critical of official military doctrine and tried their best to penetrate the defense establishment’s “wall of totalitarian secrecy”.³⁵¹

³⁴⁷ Cohen, ‘Nuclear Ambiguity and the Media’, p. 532.

³⁴⁸ Shahak, *Open Secrets*, p. 16.

³⁴⁹ Cohen, ‘Nuclear Ambiguity and the Media’, p. 533; Shahak, *Open Secrets*, p. 16 and 19.

³⁵⁰ Shahak, *Open Secrets*, pp. 14-16.

³⁵¹ *Ibid.*, p. 14.

There was, however, still one major problem. Israeli journalists could be as critical and investigative as they want, but at the end it was the Censora who decided what gets published and how. In 1988, for example, Aluf Benn, then reporter for the Tel Aviv weekly newspaper *Ha'ir* ('The City'), wrote an article about the head of Mossad (Israel's external intelligence agency) and submitted it to the Censora for prepublication review. The Censora permitted the publication of the article but deleted large parts of it for 'security reasons'. This time, however, Benn and his editor, Meir Schnitzer, decided to appeal to the Israeli Supreme Court against the Censora's decision, claiming that the deletions were excessive and unjustified. Indeed, being no party to the 1966 agreement between the Censora and the Editors' Committee, *Ha'ir* was not bound by any commitment not to appeal to the Supreme Court. Responding to *Ha'ir*'s suit in January 1989, the Supreme Court voided the Censora's decision and placed substantial legal constraints on its judgement: from now on only that information whose publication was deemed, with a probability of "near certainty", to "tangibly hurt the security of the state" justified the Censora's intervention. As Shahak points out, "the quoted 'near certainty' clause clearly means that security of the state can be upheld at the expense of freedom of expression only under extreme conditions of high and ascertainable risk to it. The censor can use his authority only for this purpose, never for any other purposes, extraneous to his functions".³⁵²

Thus, the Censora's overall power as a state institution has been diminishing steadily since the mid-1970s, counterbalanced by the Israeli media's becoming more aggressive in their demand for more transparency and open information. However, in his book, *The Worst-Kept Secret*, Avner Cohen contends that the *only* exception to this general historical trend has been the nuclear issue,

³⁵² Shahak, *Open Secrets*, p. 21. See also Cohen, *The Worst-Kept Secret*, pp. 115-16.

on which the Censura still functions as a powerful state institution to control public discussion. “How is it”, Cohen asks, “that the Censura’s authority has been diminishing steadily, but on the nuclear issue, it remains so authoritative and effective?”.³⁵³ For Cohen, the answer to this question lies in the unchanging fundamental attitudes of the Israeli public toward the Israeli bomb and the ambiguity policy that is guarding it. For most Israelis, Cohen argues, the Israeli bomb constitutes a link between two fundamental notions in the Zionist narrative: *Shoa* (Hebrew for Holocaust) and *Tekumah* (Hebrew for National Revival). The general believe is that “only the bomb ensures that no other *Shoa* could ever happen again to the Jewish people, thus making it an instrument to guarantee *Tekumah*”.³⁵⁴ Furthermore, just as the bomb itself, Cohen argues, Israelis view the policy of nuclear ambiguity in existential terms as a matter of national survival. They fear that opening the ambiguity policy to serious public discussion “would likely undermine it and hence harm national security and ultimately deprive the nation of its nuclear capacity”.³⁵⁵ Within Israel, Cohen contends, the nuclear issue has evolved into an all-encompassing societal taboo that has been adopted and perpetuated by the Israeli public of its own free will:

Israelis are fully aware that their country possesses nuclear weapons... but they prefer not to know more... [and] to keep public discussion of nuclear weapons vague and opaque. It is not that Israelis have been deprived by their government of their democratic right to know but that they have willingly and actively given up this right in deference to the government’s own institutions of oversight and accountability.³⁵⁶

In a parallel fashion, the Israeli journalist and author Michael Karpin argues that:

For most Israelis, their doomsday weapon is the most sensitive matter on earth—indeed an existential subject so sensitive that they prefer not to discuss it at all. Israelis have reached a kind of silent conspiracy—a general agreement that puts the nuclear subject outside public debate... Sometimes it

³⁵³ Cohen, *The Worst-Kept Secret*, p. 140.

³⁵⁴ *Ibid.*, p. 121.

³⁵⁵ *Ibid.*, pp. XIII-XIV.

³⁵⁶ *Ibid.*, p. 143.

seems as if the entire Israeli nuclear issue does not exist. Notably, this ban against raising the matter for public debate was not imposed from above, but adopted by the public of its own free will.³⁵⁷

Cohen is particularly critical of the Israeli media and holds them partly responsible for this situation. “The Israeli media”, he argues, “view themselves as the nation’s democratic watchdogs, champions of transparency and openness. They are investigative, critical, and even cynical about governmental claims”. However, when it comes to the nuclear issue, Cohen contends, “the Israeli media ignore their self-image as democracy’s watchdogs, and they have no interest in transparency and openness”.³⁵⁸ According to Cohen, the Israeli media “not only have accepted the off-limits status of the nuclear issue but also have helped strengthen it”.³⁵⁹

However, as mentioned above, my own research on the topic has revealed that there is no such thing as a nuclear taboo in Israel. To be sure, Cohen and Karpin are right in arguing that a large majority of Israelis supports the Israeli bomb and the ambiguity policy that is guarding it. From the mid-1980s until the early 2000s, Tel Aviv University’s Jaffe Center for Strategic Studies (JCSS) has surveyed Israeli public attitudes about Israel’s nuclear weapons program and policies. Two of the questions asked concerned (1) whether or not Israel should develop nukes, and (2) whether or not such weapons should be kept opaque. In a 1987 survey, 78 percent of a representative sample of Israeli Jews supported the proposition that Israel should develop nuclear weapons; this number rose to 92 percent in 1998. Regarding the second question, 78 percent of respondents in the 1987 survey supported Israel’s policy of nuclear ambiguity.³⁶⁰ In a 2003 survey

³⁵⁷ Karpin, M. ‘Deep in the Basement: Israel’s Harmonious Nuclear Ambiguity’, *World Policy Journal*, vol. 26, no. 3 (2009), p. 31.

³⁵⁸ Cohen, *The Worst-Kept Secret*, p. 141.

³⁵⁹ *Ibid.*, p. 143.

³⁶⁰ Arian, A. ‘Public Opinion and Nuclear Weapons’, *INSS Strategic Assessment*, vol. 1, no. 3 (1998), pp. 8-9.

this number slightly dropped to 72 percent, while 21 percent favored revealing the existence of Israel's nuclear weapons (i.e., adopting a policy of explicit nuclear deterrence), and only 5 percent favored giving them up.³⁶¹

However, support for the Israel's bomb in the basement does not necessarily translate into a taboo. To the contrary, my research has revealed that since the mid-1970s there has been a continuous discursive growth on the nuclear issue in Israel, with a veritable discursive explosion in the last twenty years. This has led me to ask an entirely different set of questions: (1) Why has the nuclear issue been so widely discussed in recent years, and not before; (2) what has been said about it; and (3) what remains unsaid. In the next section, I answer these questions one by one.

4.2 Turning the Israeli Bomb into Public Discourse: The Birth of the According-to-Foreign-Sources Policy

So why has the nuclear issue been so widely discussed in recent years, and not before? As I have mentioned above, during the time when Israel pursued a policy of total nuclear secrecy, the IAEC and MALMAB used the Censura to ban any reference to Israel's nuclear project in the Israeli media. However, in the mid-1970s, when Israel adopted a policy of strategic nuclear ambiguity, elites in charge of Israel's nuclear program changed the Censura's guidelines on the nuclear issue. From now on Israelis were free to write about the nuclear issue, provided that they quote identifiable foreign media sources in any factual reference to the Israeli nuclear program (I discuss the rationale behind this regulation in the next section).

³⁶¹ Arian, A. 'Israeli Public Opinion on National Security 2003', Memorandum No. 67 (Tel Aviv: Jaffee Center for Strategic Studies, Tel Aviv University, 2003), p. 16. This is, to the best of my knowledge, the most recent survey on Israeli public attitudes on the nuclear issue.

This gave Israelis unprecedented freedoms to write about their country's nuclear project. Indeed, as early as 1973, the Israeli scholar Yair Evron published an academic article that analyzed how Israel (mis)used ambiguity for its nuclear weapons program.³⁶² Indeed, it was Evron who coined the term 'nuclear ambiguity' to describe Israel's unique nuclear conduct, which explains why Israeli government officials refer to it as "academic fiction".³⁶³ Two years later, in the spring of 1975, Alan Dowty published the first Hebrew article on the nuclear issue in the Israeli academic journal *State, Government and International Relations*.³⁶⁴ Over the next four decades, Israeli scholars have written a considerable number of articles and books on the history of Israel's nuclear weapons program.³⁶⁵ However, since I have discussed the content of these works in the previous chapter, I will not deal with them here. Instead, I want to analyze the nuclear discourse in the Israeli media, which differs from the academic discourse in the sense that it contains nuclear topics that are more relevant for the general public.

To begin with, Israeli journalists have used their new freedoms to inform the Israeli public about the basic facts regarding Israel's nuclear weapons program. For example, in an article published in the Israeli daily newspaper *Ha'aretz* ('The Land'), Amir Oren, a leading Israeli military analyst, writes that

³⁶² Evron, Y. 'Israel and the Atom: The Uses and Misuses of Ambiguity', *Orbis*, vol. 17 (1973), pp. 1326-43.

³⁶³ Interview with Ariel Levite, former Principal Deputy Director General for Policy at the Israel Atomic Energy Commission (IAEC), 20 December 2016.

³⁶⁴ Dowty, A. 'M'diniuta hagarinit shel Yisrael' [Israel's Nuclear Policy], *M'dina, Mimshal Vyahasim Benleumiim* [*State, Government and International Relations*], vol. 7 (Spring 1975), pp. 5-27.

³⁶⁵ The most notable publications are: Aronson, S. *The Politics and Strategy of Nuclear Weapons in the Middle East: Opacity, Theory and Reality, 1960–1991: An Israeli Perspective* (Albany, NY: SUNY Press, 1992); Cohen, A. *Israel and the Bomb* (New York: Columbia University Press, 1998); Evron, Y. *Israel's Nuclear Dilemma* (Ithaca, NY: Cornell University Press, 1994); Feldman, S. *Israeli Nuclear Deterrence: A Strategy for the 1980s* (New York: Columbia University Press, 1982); and Raz, A. *The Struggle for the Bomb* (Jerusalem: Karmel, 2015).

Israel produced 660 Kg of plutonium in its nuclear reactor in Dimona, and used it to make 115 nuclear warheads, which it holds in its arsenal today, a study by the Washington D.C.-based Institute for Science and International Security (ISIS) published Friday alleges.

In addition to weapons designed to be dropped from aircraft, according to the report, Israel also holds surface-to-surface and submarine-launched nuclear cruise missiles, each with a warhead of 3 to 5 Kg of plutonium. The total output could be used to make 90 to 290 warheads, with a median of 115.³⁶⁶

Oren informs his readers that Israel used the Dimona reactor to produce weapons-grade plutonium and that Israel used the plutonium to build nuclear weapons. He even speculates about the amount of plutonium produced and the number of nukes build. Oren is able to do all of this because he is referring to an identifiable foreign source (the ISIS report).³⁶⁷

However, in a December 2015 discussion in Tel Aviv, Yossi Melman, senior security and intelligence analyst for *The Jerusalem Post*, explained to me that journalists no longer have to refer to *identifiable* foreign reports when discussing the Israeli bomb, it suffices to add the phrase ‘according to foreign sources’: “Today we have the most liberal censor since the establishment of the State [of Israel]... We have many freedoms...but they [the Censora] really insist on this thing [adding the phrase ‘according to foreign sources’],... it is non-negotiable”.³⁶⁸ Indeed, in a recent article in *The Jerusalem Post*, Melman writes that

³⁶⁶ Oren, A. ‘Israel Has 115 Nuclear Warheads, U.S. Research Institute Says’, *Ha’aretz*, 21 November 2015. Available at: <https://www.haaretz.com/israel-news/report-israel-has-115-nuclear-warheads-1.5424889>. Last accessed: February 28, 2018.

³⁶⁷ See Albright, D. ‘Israel’s Military Plutonium Inventory’, *Institute for Science and International Security*, 19 November 2015, pp. 1-5. Available at: <http://isis-online.org/uploads/isis-reports/documents/Israel Military Plutonium Stock November 19 2015 Final.pdf>. Last accessed: February 28, 2018.

³⁶⁸ Interview with Yossi Melman, senior security and intelligence analyst for *The Jerusalem Post*, 10 December 2015.

To this day, Israel has yet to join the NPT and is believed to be, according to multiple foreign reports, the sixth biggest nuclear power in the world, with a stockpile numbering up to 100 nuclear warheads.³⁶⁹

Like Oren, Melman confirms Israel's status as de facto nuclear-weapon state and speculates about the number of nukes Israel possesses. Unlike Oren, however, Melman does not refer to an *identifiable* foreign source, but simply adds the phrase "according to multiple foreign reports". It is important to note, however, that the 'according-to-foreign-sources rule' applies only to factual discussions of Israel's nuclear status and capabilities (i.e., does Israel have nuclear weapons? How many nukes does Israel have? What type of nukes does Israel have?). Every other aspect of Israel's nuclear program can be freely discussed. As Ariel Levite, former Principal Deputy Director General for Policy at the IAEC, explained to me: "The only thing that they [the Censora] don't want you to talk about based on Israeli sources is what physically exists. Everything else... is completely free for discussion. You don't need to quote foreign sources".³⁷⁰

Nevertheless, my research has revealed that the according-to-foreign-sources regulation also applies to Israel's policy of bombing ambiguity (i.e., Israelis have to quote foreign sources when writing about bombings that have neither been confirmed nor denied by the Israeli government). In the following passage from an article in *Ha'aretz*, for example, the author freely talks about the Israeli bombing of Iraq's Osiraq reactor in 1981, which has been acknowledged by the Israeli government, but quotes foreign sources when he mentions the 2007 raid against Syria's al-Kibar reactor, which was the first time Israel employed an ambiguous bombing policy:

³⁶⁹ Melman, Y. 'US documents reveal: US demanded from Israel not to deploy nuclear weapons', *The Jerusalem Post*, 18 August 2015. Available at: <http://www.jpost.com/Israel-News/Politics-And-Diplomacy/US-archival-documents-reveal-Israel-promised-not-to-deploy-nuclear-weapons-412456>. Last accessed: August 12, 2016.

³⁷⁰ Interview with Ariel Levite, former Principal Deputy Director General for Policy at the Israel Atomic Energy Commission (IAEC), 20 December 2016.

They believe that Israel must rely solely on itself and act alone, just as it did in 1981 against the Iraqi nuclear reactor and - according to foreign press reports - in 2007 against the Syrian reactor.³⁷¹

It is also interesting to note that the according-to-foreign-sources rule not only applies to the print and electronic media, but also to postings on the Internet, as the following Facebook-post by *Ha'aretz* seeks to demonstrate:

Figure 4.2 Facebook-post by *Ha'aretz* (04 September 2017)



³⁷¹ Benn, A. 'Cries of 'Hold Me Back' May Lead Israel to Strike Iran', *Ha'aretz*, 30 September 2009. Available at: <http://www.haaretz.com/cries-of-hold-me-back-may-lead-israel-to-strike-iran-1.6986>. Last accessed: August 22, 2016.

Thus, there has been a considerable relaxation of censorship regarding the nuclear issue in recent years, which gives Israelis unprecedented freedoms to write about the topic. Indeed, Israeli journalists have used these freedoms not only to speculate about the number of Israeli nukes, but also to inform the public about pressing issues concerning nuclear safety, a topic that has been heavily censored in the past.³⁷² In April 2016, for example, *Ha'aretz* reporter Chaim Levinson revealed that an inspection of the Dimona nuclear reactor performed with modern ultrasound technology had found 1,537 defects and flaws at the reactor's aging aluminium core.³⁷³ To ensure nuclear safety, Levinson argued, Dimona-type nuclear reactors are designed to operate up to a maximum of 40 years. In an effort to extend the lifespan of the Dimona reactor, which was provided by France in the 1950s and put into action in 1963, Israel has replaced most of its crucial parts in recent years. However, the main problem according to Levinson is that the core of the Dimona reactor is irreplaceable. Indeed, WikiLeaks recently revealed that in 2007 Prof. Eli Abramov, then deputy director general of the Dimona reactor, told U.S. officials that his team had replaced all the reactor's systems, including its cooling towers, except the aluminium core, which, being encased in concrete, cannot be replaced as a solitary unit.³⁷⁴

In response to Levinson's article, MK Yael Cohen Paran submitted a parliamentary question to the Israeli government asking how long it planned to keep the Dimona reactor in operation. The government responded after 18 months saying that it plans to extend the operating life of the

³⁷² The International Atomic Energy Agency (IAEA) defines nuclear safety as "The achievement of proper operating conditions, prevention of accidents and mitigation of accident consequences, resulting in protection of workers, the public and the environment from undue radiation risks". IAEA, 'IAEA Safety Glossary: Terminology Used in Nuclear Safety and Radiation Protection', June 2016, p. 116. Available at: <https://www-ns.iaea.org/downloads/standards/glossary/iaea-safety-glossary-draft-2016.pdf>. Last accessed: February 19, 2018.

³⁷³ Levinson, C. 'Israel's Dimona Nuclear Reactor Plagued by 1,537 Defects, Scientists Say', *Ha'aretz*, 26 April 2016. Available at: <https://www.haaretz.com/israel-news/premium-1.716312>. Last accessed: February 19, 2018;

³⁷⁴ WikiLeaks, 'Cable: 07TELAVIV858_a', 20 March 2007. Available at: https://wikileaks.org/plusd/cables/07TELAVIV858_a.html. Last accessed: February 19, 2018.

reactor through 2040, when the facility will be almost 80 years old. Regarding the reactors age, the government said that “The determination that there is an ironclad, maximal age of 40 years for the operation of a reactor is untrue, having no basis in reality”.³⁷⁵ In a parallel fashion, members of the IAEC contended that, “though it had long been assumed that reactors had a fixed lifespan, this has no scientific basis, and with proper care, a reactors use can be safely extended long beyond the 40 years that were once seen as the limit”.³⁷⁶ Levinson responded arguing that two Dimona-type French reactors that were built at around the same time (the G-1 and G-2 at Marcoule) were closed in 1980 due to safety concerns. Indeed, according to Levinson, “The Dimona reactor is the oldest of its type in the world... Over 150 reactors of its age, or younger, have already been closed around the world because of safety fears or because of accidents in their operation”. The only reason why the Dimona reactor still operates, Levinson argued, is that “the country cannot afford, either diplomatically or financially, to build a new reactor to replace it”.³⁷⁷

Another crucial nuclear safety-related topic that has been discussed extensively in the Israeli media in recent years was employee protection. For the last twenty years Israeli journalists have been reporting on the case of a group of former Dimona workers who had sued the IAEC in the mid-1990s, claiming that they had developed cancer after having been exposed to high levels of

³⁷⁵ Levinson, C. ‘Israel Wants to keep Aging Dimona Nuclear Reactor Operating Until 2040, When It Will Be 80’, *Ha’aretz*, 19 November 2017. Available at: <https://www.haaretz.com/israel-news/.premium-israel-will-try-to-keep-aging-nuclear-reactor-running-until-2040-1.5466060>. Last accessed: February 19, 2018.

³⁷⁶ Levinson, C. ‘Dimona Nuclear Reactor: 10 Years Past Its Projected Lifespan With No Plans To Be Shut Down’, *Ha’aretz*, 19 September 2017. Available at: <https://www.haaretz.com/israel-news/.premium-dimona-reactor-10-years-past-its-lifespan-no-plans-to-shut-down-1.5451940>. Last accessed: February 19, 2018.

³⁷⁷ Levinson, ‘Israel Wants to keep Aging Dimona Nuclear Reactor Operating Until 2040’. See also Melman, Y. ‘Analysis: The Cloudy Future of Israel’s Nuclear Reactor’, *The Jerusalem Post*, 26 April 2016. Available at: <http://www.jpost.com/Israel-News/ANALYSIS-The-cloudy-future-of-Israelis-nuclear-reactor-452406>. Last accessed: February 19, 2018.

radiation at work.³⁷⁸ It is interesting to note that the workers have been compensated recently despite their inability to prove a direct connection between their work and the disease to the courts, and despite the fact that the IAEC never took responsibility for their illness.³⁷⁹ The IAEC nevertheless decided to compensate the workers because of their “unique contribution to the field of nuclear research and development”.³⁸⁰ However, according to Levinson, the real reason behind the IAEC’s generous compensation was to avoid having to publicly discuss details about employees work, including the specific materials they worked with.³⁸¹ Indeed, the committee that mediated between the IAEC and the workers said in a statement after the deal was reached that “Conducting civil discussions on sensitive issues poses a difficult challenge for the State of Israel. The generosity of the compensation reflects a premium borne by the state in order to protect the security interests by preventing the disclosure of classified information”.³⁸²

Other important issues of nuclear safety discussed by Israeli journalists in recent years were reinforcement of the Dimona plant against earthquakes,³⁸³ protection of the plant and its

³⁷⁸ Rinat, Z. ‘Dimona Family Sues Over Cancer Death’, *Ha’aretz*, 13 July 2001. Available at: <https://www.haaretz.com/1.5354712>. Last accessed: February 28, 2018; Cohen, G. ‘Worker’s at Israel’s Dimona Nuclear Reactor Say Leaks at Plant Gave Them Cancer’, *Ha’aretz*, 15 December 2011. Available at: <https://www.haaretz.com/1.5219521>. Accessed: February 28, 2018.

³⁷⁹ Cohen, G. ‘Dimona Chief: Cancer Rates at Nuclear Plant Similar to Those of General Public’, *Ha’aretz*, 04 May 2015. Available at: <https://www.haaretz.com/premium-dimona-chief-cancer-rates-at-nuclear-plant-normal-1.5357921>. Last accessed: February 28, 2018. See also Israel Atomic Energy Commission (IAEC), ‘Safety, Environmental Protection and Health’. Available at: http://iaec.gov.il/English/Regulation_Safety/Pages/default.aspx. Last accessed: October 12, 2018.

³⁸⁰ Morag, G. ‘Dimona reactor compensates employees with cancer, without admitting guilt’, *Ynetnews*, 18 September 2017. Available at: <https://www.ynetnews.com/articles/0,7340,L-5018407,00.html>. Last accessed: February 28, 2018.

³⁸¹ Levinson, C. ‘Israeli Court Awards Cancer-stricken Nuclear Reactor Workers With \$22 Million’, *Ha’aretz*, 18 September 2017. Available at: <https://www.haaretz.com/israel-news/cancer-stricken-israeli-nuclear-reactor-workers-awarded-22-million-1.5451774>. Accessed: February 28, 2018.

³⁸² Quoted in *Ibid*.

³⁸³ Fyler, B. ‘Experts: Israel should prepare nuclear reactor for quake’, *Ynetnews*, 13 March 2011. Available at: <https://www.ynetnews.com/articles/0,7340,L-4041509,00.html>. Last accessed: February 20, 2018; and Sheizaf, N. ‘Earthquakes and Israel’s nuclear project: The nightmare scenario’, *+972 Magazine*, 12 March 2011. Available at: <https://972mag.com/earthquake-and-the-dimona-project-the-nightmare-scenario/11927/>. Last accessed: February 20, 2018.

surrounding area against radiation dispersion devices (RDDs, or ‘dirty bombs’),³⁸⁴ protection of the reactor core against missiles,³⁸⁵ and various problems related to storing nuclear waste.³⁸⁶

Another issue of concern for Israeli journalists has been the economic aspects of Israel’s nuclear weapons program. However, since Israel has kept its nuclear weapons budget top secret, it has been very difficult for analysts to even guess what Israel spends on nuclear weapons and delivery systems or what percentage of the overall defense budget is nuclear-related.³⁸⁷ This veil of secrecy was lifted a little in May 2014, when Dan Harel, Israel’s Director General of the Defense Ministry, disclosed to journalists that 4.5 billion Israeli shekels (approximately \$1.3 billion) of Israel’s overall defense budget for 2014 was allocated for “special means”,³⁸⁸ a veiled euphemism that in this context referred to Israel’s nuclear weapons program.³⁸⁹ This tiny window into Israel’s secret nuclear weapons budget allowed analysts to discuss for the first time whether Israel spends too much or too little on its nuclear deterrent. In an article published in *Ha’aretz*, for example, the Israeli journalist Uri Misgav provided a ‘quantity-cost-benefit analysis’, arguing that even if we

³⁸⁴ Levinson, C. ‘Haaretz Exclusive: Israel Tested ‘Dirty Bomb Cleanup’ in the Desert’, *Ha’aretz*, 08 June 2015. Available at: <https://www.haaretz.com/premium-israel-tested-dirty-bomb-cleanup-in-the-desert-1.5370095>. Last accessed: February 20, 2018.

³⁸⁵ Katz, Y. ‘IDF To Simulate Missile Attack on Dimona Nuclear Reactor’, *The Jerusalem Post*, 05 September 2011. Available at: <http://www.jpost.com/Defense/IDF-to-simulate-missile-attack-on-Dimona-nuclear-reactor>. Last accessed: February 20, 2018; and Levinson, C. ‘Israel Boosting Defense of Nuclear Reactors Fearing Iranian Missile Attack’, *Ha’aretz*, 28 June 2018. Available at: <https://www.haaretz.com/israel-news/premium-israel-boosting-defense-of-nuclear-reactors-fearing-iranian-missile-attack-1.6219937>. Last accessed: November 09, 2018.

³⁸⁶ Levinson, C. ‘Israel’s Nuclear Reactor Seeks New Burial Sites for Radioactive Waste’, *Ha’aretz*, 25 January 2016. Available at: <https://www.haaretz.com/israel-news/premium-dimona-reactor-seeking-new-burial-sites-for-waste-1.5395073>. Last accessed: February 20, 2018.

³⁸⁷ Oren, A. ‘Put Israel’s Nuclear Program on a Diet’, *Ha’aretz*, 02 February 2014. Available at: <https://www.haaretz.com/opinion/premium-israel-needs-a-nuclear-diet-1.5317910>. Last accessed: February 19, 2018.

³⁸⁸ Benn, A. ‘IDF Budget Reveals Netanyahu’s Defense Priorities’, *Ha’aretz*, 27 May 2014. Available at: <https://www.haaretz.com/premium-netanyahu-s-defense-priorities-revealed-1.5249851>. Last accessed: February 19, 2018.

³⁸⁹ Cohen, A. ‘Israel’s Nuclear Budget’, *James Martin Center for Nonproliferation Studies*, 9 June 2014. Available at: <http://www.nonproliferation.org/israels-nuclear-budget/>. Last accessed: February 19, 2018.

take the lowest estimate and assume that Israel has ‘only’ 80 nuclear bombs,³⁹⁰ this number is still too high because “nuclear deterrence can be achieved with only one bomb, and Israel in any case isn’t revealing how many it has. It’s akin to a man taking out 80 life insurance policies. It looks like an illogical decision. There are apparently people who made a lot of money out of this”. He continued:

We’re not just talking about the possibility of a historic economic blunder. There’s a problem right now. Based on publications here and abroad, if 10 years ago, Israel had stopped making new bombs, then is it possible that storage, upkeep and maintaining readiness would cost 4.5 billion shekels a year? And if production has indeed stopped, then why is a budget increase of 13 percent slated for next year? One wonders if, under the nose of Israeli society... there hasn’t sprung up another predatory monster of wasteful spending, inflated salaries and sky-high pensions.³⁹¹

Avner Cohen made a similar argument, but cautioned not to rush to conclusions. It is highly difficult to calculate and define the annual costs of any nuclear weapons program, Cohen argued, because most “programs have dual and even triple use, and it’s hard to assign categories. In addition, translating development activity and system life cycles into annual budgets is also inherently difficult. And in Israel, at least, more is concealed than is revealed”.³⁹² Hence, while the disclosure of Israel’s nuclear budget for 2014 enabled analysts to raise some important questions regarding the economic aspects of Israel’s nuclear weapons program, the secrecy surrounding the program prevented them from discussing these questions in any meaningful way. 4.5 billion shekels for the storage and maintenance of how many nukes? What type of nukes? And what kind of delivery systems? By contrast, in the United States journalists were able to determine and

³⁹⁰ Misgav is referring to an estimate by Kristensen, H. M & Norris, R. S. ‘Israeli nuclear weapons, 2014’, *Bulletin of the Atomic Scientists*, vol. 70, no. 6 (2014), pp. 97-115.

³⁹¹ Misgav, U. ‘The Nuclear Threat to Israel’s Economy’, *Ha’aretz*, 09 June 2014. Available at: <https://www.haaretz.com/opinion/premium-the-nuclear-threat-to-israel-s-economy-1.5251138>. Last accessed: February 19, 2018.

³⁹² Cohen, A. ‘Paying Too Much for Insurance’, *Ha’aretz*, 06 June 2014. Available at: <https://www.haaretz.com/opinion/paying-too-much-for-insurance-1.5250862>. Last accessed: February 19, 2018.

critique the cost of every single nuclear weapon in the U.S. arsenal, due to increased levels of transparency.³⁹³

However, no nuclear topic has been more widely discussed over the years among Israeli journalists, academics, and other experts than Israel's nuclear strategy. Two principal viewpoints have emerged.³⁹⁴ The first, held by a limited number of Israeli analysts, critiques the Israeli government's long-standing strategy of deliberate nuclear ambiguity and calls for the establishment of a policy of explicit nuclear deterrence instead.³⁹⁵ The arguments presented by these analysts can be summed up in the following points:

- a) A strategy of explicit nuclear deterrence is preferable to the policy of nuclear ambiguity because it would give Israel's nuclear deterrence far greater credibility and make it more effective in dissuading states in the region from waging war against Israel. As Louis René Beres put it, "the purpose of Israeli nuclear disclosure would not be to reveal the obvious

³⁹³ Blumberg, J. 'Here's how much a nuclear weapon costs', *CNBC*, 08 August 2017. Available at: <https://www.cnbc.com/2017/08/08/heres-how-much-a-nuclear-weapon-costs.html>. Last accessed: February 19, 2018. See also Klass, R. 'To Cut Wasteful Spending, Start with Nuclear Weapons', *The Huffington Post*, 05 February 2013. Available at: https://www.huffingtonpost.com/richard-klass/to-cut-wasteful-spending_b_2624340.html. Last accessed: February 19, 2018.

³⁹⁴ For an in-depth discussion of the arguments of both sides of the divide, see Beres, L. R. 'Israel's bomb in the basement: A revisiting of "Deliberate Ambiguity" vs. "Disclosure"', *Israel Affairs*, vol. 2, no. 1 (1995), pp.112-36. See also Raz, A. 'The Value of Nuclear Ambiguity in the Face of a Nuclear Iran', *INSS Strategic Assessment*, vol. 14, no. 3 (October 2011), pp. 20-24; and Magnezi, A. 'Should Israel end nuclear ambiguity?', *Ynetnews*, 15 April 2010. Available at: <https://www.ynetnews.com/articles/0,7340,L-3876261,00.html>. Last accessed: February 19, 2018.

³⁹⁵ See, inter alia, Cohen, A. 'Time for Israel to Drop Nuclear Ambiguity', *Ha'aretz*, 21 June 2018. Available at: <https://www.haaretz.com/opinion/.premium-time-for-israel-to-drop-nuclear-ambiguity-1.6198606>. Last accessed: November 19, 2018; Cohen, A. & Miller, M. 'Bringing Israel's Bomb Out of the Basement: Has Nuclear Ambiguity Outlived Its Shelf Life?', *Foreign Affairs*, vol. 89, no. 5 (September/October 2010), pp. 30-44; Feldman, S. *Israeli Nuclear Deterrence: A Strategy for the 1980s* (New York: Columbia University Press, 1982); Maoz, Z. 'The Mixed Blessings of Israel's Nuclear Policy', *International Security*, vol. 28, no. 2 (2003), pp. 44-77; Oren, A. 'Israel's Nuclear Ambiguity Policy No Longer Serves a Purpose', *Ha'aretz*, 18 August 2013. Available at: <https://www.haaretz.com/opinion/.premium-nuclear-ambiguity-no-longer-serves-a-purpose-1.5322023>. Last accessed: February 19, 2018; Pedatzur, R. 'An End to Nuclear Opacity', *Ha'aretz*, 07 May 2010. Available at: <https://www.haaretz.com/1.5117315>. Last accessed: February 19, 2018; Schenker, H. 'Israel's Nuclear Ambiguity May Be Nearing an End', *Ha'aretz*, 11 November 2011. Available at: <https://www.haaretz.com/1.5208634>. Last accessed: 20 February, 2018.

[that Israel is a nuclear-weapon state]”, but rather “to heighten prospective enemy perceptions that Israel’s nuclear forces are fully capable and that Israel would be willing to use these nuclear forces in reprisal for certain first-strike attacks”.³⁹⁶

- b) Despite the policy of nuclear ambiguity, Israel is presumed to be a de facto nuclear-weapon state. Therefore, adopting a strategy of explicit deterrence would not change Israel’s nuclear image in the Middle East and the rest of the world. It would neither lead to sanctions by the nonproliferation regime (as the case of India shows),³⁹⁷ nor would it encourage a nuclear-arms race with Israel’s neighbors.
- c) In any case, nuclear ambiguity has not prevented other states in the Middle East from seeking their own nuclear deterrent. Iraq, Libya, Syria, and Iran have all developed nuclear weapons programs despite Israel’s reluctance to ‘introduce’ nukes into the Middle East.
- d) Explicit deterrence would help reduce the crippling defense budget, which is currently geared toward increasing Israel’s conventional military strength vis-à-vis its Arab neighbors. This would also make Israel less dependent on U.S. military and economic aid.
- e) The adoption of a policy of explicit deterrence would make decision-making processes in the nuclear realm (bureaucratic, economic, strategic, etc.) more transparent and therefore more democratic.³⁹⁸

³⁹⁶ Maoz, Z. & Beres, L. R. ‘Correspondence: Israel and the Bomb’, *International Security*, vol. 29, no. 1 (2004), pp. 176-77.

³⁹⁷ In 1998 India abandoned its policy of nuclear ambiguity and officially declared its nuclear weapons capability through a series of tests. The United States initially imposed some very moderate sanctions on India, but after a short while the two countries signed an agreement for nuclear cooperation. See Bumiller, E. & Sengupta, A. ‘Bush and India Reach Pact That Allows Nuclear Sales’, *The New York Times*, 03 March 2006. Available at: <https://www.nytimes.com/2006/03/03/world/asia/bush-and-india-reach-pact-that-allows-nuclear-sales.html>. Last accessed: January 14, 2018.

³⁹⁸ Avner Cohen has developed this argument in a number of recent publications, including: Cohen, A. ‘Nuclear Legislation for Israel’, *INSS Strategic Assessment*, vol. 12, no. 1 (2009), pp. 7-18; Cohen, A. ‘Subjecting Israel’s Nuclear Program to the Rule of Law’, *Ha’aretz*, 14 September 2017. Available at: <https://www.haaretz.com/opinion/.premium-subjecting-israels-nuclear-program-to-the-rule-of-law-1.5450848>. Last accessed: January 14, 2018; Cohen, A. & Mack, E. ‘Now Is the Time for an Israeli Nuclear Law’, *Ha’aretz*, 01 August 2017. Available at: <https://www.haaretz.com/opinion/.premium-time-has-come-for-an-israeli-nuclear-law->

The other viewpoint adopts and defends the strategy of deliberate nuclear ambiguity, calling for its persistence, is the view of the military and political establishments in Israel, and has the support of the vast majority of Israeli analysts.³⁹⁹ The arguments in favor of maintaining ambiguity can be summed up in the following points:

- a) As long as Israel has an ambiguous position on nuclear weapons, it can use it as a bargaining tool for securing transfers of conventional arms from the United States. As Alan Dowty explains, “Israel is considered a key country in efforts to prevent nuclear proliferation; i.e., it is generally felt that if Israel went publicly nuclear, a number of other countries would immediately seek to join the nuclear club as well... Israel is therefore in a unique position to gain important concessions in other areas by careful manipulation of its own nuclear policy in bargaining [with the United States] (especially, one assumes, in negotiations over the supply of conventional armaments)”.⁴⁰⁰ Indeed, by going openly nuclear Israel would not only lose this bargaining card but might also risk losing

[1.5437709](#). Last accessed: January 14, 2018; Cohen, A. ‘Nuclear Secrets and Lies: Petition Seeks to Move Israel’s Atomic Policy Out of the Shadows’, *Ha’aretz*, 10 June 2016. Available at:

<https://www.haaretz.com/opinion/premium-lets-put-israel-s-atomic-energy-commission-under-rule-of-law-1.5394389>. Last accessed: January 14, 2018; Cohen, *The Worst-Kept Secret*. See also, Bob, Y. J. ‘Is It Time to Regulate Israel’s Atomic Agency?’, *The Jerusalem Post*, 02 September 2017. Available at: <http://www.jpost.com/Israel-News/Politics-And-Diplomacy/Is-it-time-to-regulate-Israelis-atomic-agency-503937>. Last accessed: January 15, 2018.

³⁹⁹ See, inter alia, Evron, Y. ‘Keep Ambiguity’, *Ha’aretz*, 01 June 2010. Available at:

<https://www.haaretz.com/1.5127894>. Last accessed: February 19, 2018; Landau, E. B. ‘Being Clear About Ambiguity’, *Ha’aretz*, 13 May 2010. Available at: <https://www.haaretz.com/1.5120269>. Last accessed: February 19, 2018; Landau, E. B., Asculai, E. & Stein, S. ‘Israel’s Nuclear Ambiguity, Arms Control Policy, and Iran: Is the Time Ripe for Basic Changes?’, *INSS Insight*, no. 478 (2013), pp. 1-3; Melman, Y. ‘For Now, Stay Ambiguous’, *Ha’aretz*, 17 May 2010. Available at: <https://www.haaretz.com/1.5121581>. Last accessed: February 19, 2018; Raz, A. ‘Is Israel’s Nuclear Ambiguity Worth Preserving?’, *Al-Monitor*, 30 October 2012. Available at: <https://www.al-monitor.com/pulse/security/01/10/meretz-chairperson-zahava-gal-on.html>. Last accessed: October 12, 2018; Schiff, Z. ‘Gates Testimony/Preserving Nuclear Ambiguity’, *Ha’aretz*, 10 December 2006. Available at: <https://www.haaretz.com/1.4937971>. Last accessed: February 19, 2018; and Ziv, G. ‘To Disclose or Not to Disclose: The Impact of Nuclear Ambiguity on Israeli Security’, *Israel Studies Forum*, vol. 22, no. 2 (2007), pp. 76-94.

⁴⁰⁰ Dowty, A. ‘Nuclear Proliferation: The Israeli Case’, *International Studies Quarterly*, vol. 22, no. 1 (1978), p. 94.

completely American assistance. The 1976 Symington and the 1977 Glenn Amendments to the Foreign Assistance Act ban U.S. economic and military assistance to countries that acquire uranium-enrichment and/or plutonium-reprocessing technologies without accepting the safeguards of the IAEA on their nuclear facilities. And even if this could be somehow circumvented, the impact of a declared Israeli nuclear capability on U.S.-Israeli relations would be devastating, given the strong stands taken by every U.S. administration against nuclear proliferation, especially in the Middle East.

- b) Israel's ambiguous nuclear posture minimized the impetus for a nuclear arms race in the Middle East and allowed decision makers in the region to overcome internal public and political pressures to pursue nuclear capabilities of their own. Thus, Israel's nuclear ambiguity policy has bolstered Arab decision makers opposed to nuclear armament. Conversely, explicit nuclear deterrence would increase domestic pressure on these leaders to challenge Israel's nuclear monopoly and strengthen Arab elites supporting development of a nuclear option. Some Arab states have pursued nukes anyway, partially in response to Israel's nuclear weapons, but ambiguity made it easier for others to live with them, however grudgingly.
- c) Nuclear ambiguity strengthens Israel's ability to take both diplomatic and military action against regional adversaries that seek to acquire nuclear capabilities. A policy of explicit nuclear deterrence, on the other hand, would weaken international legitimacy for Israeli pre-emptive strikes against enemy nuclear installations.⁴⁰¹

⁴⁰¹ See discussion of Israel's policy of bombing ambiguity in chapter three.

d) Nuclear deterrence has in any case done little to prevent limited conventional attacks in the past (e.g., the Arab attacks in 1973 and 1991),⁴⁰² nor has it prevented these limited conflicts from escalating into full-scale wars. As Yair Evron put it with reference to the 1973 Yom Kippur War: “That the Egyptians and Syrians launched an attack with only limited objectives [in 1973] was dictated not by worst-case assumptions about Israel’s *nuclear* capability but because of their keen awareness of Israel’s *conventional* superiority”.⁴⁰³ Therefore, explicit deterrence is not an alternative to Israel maintaining its conventional superiority. In the case of a limited attack, Israel will need its conventional capabilities. Thus, a public nuclear status would neither solve Israel’s security situation nor would it solve the problem of Israeli dependence on American military and financial support.

However, some of the arguments made in the ambiguity-deterrence debate fit into neither camp. Louis René Beres, for example, supports the policy of nuclear ambiguity but argues that it should be dropped when Iran (or any other country in the region) is approaching a nuclear weapons capability. According to Beres, the answer to a nuclear-armed Iran must be “to bring the bomb out of the basement” and adopt a policy of explicit nuclear deterrence. “Before enemies can be deterred from launching first strikes against Israel”, Beres argues, “it may not be enough to assume only that Israel has the Bomb. These enemies may also need to recognize that nuclear weapons attributed to Israel are sufficiently invulnerable to such attacks, and that they are pointed directly at high-value population targets”. Thus, according to Beres, “adequate deterrence of Iran would

⁴⁰² The 1967 Six-Day War is not relevant here because, at the start of the conflict, the Arabs did not yet suspect Israel of possessing nukes.

⁴⁰³ Evron, Y. ‘Israel and Nuclear Weapons’, *Asian Perspective*, vol. 3, no.1 (1979), p. 64 (emphasis in original). See also Maoz, ‘The Mixed Blessings of Israel’s Nuclear Policy’, p. 61. For a critique of this argument, see Ziv, ‘To Disclose or Not to Disclose’.

require some release of pertinent Israeli nuclear details. Concerning these details, less rather than more Israeli nuclear secrecy would be required”.⁴⁰⁴

Entirely missing from the discussion, however, are alternatives to either nuclear ambiguity or explicit deterrence. Specifically, Israelis seem not to want to consider the ‘radical’ idea of denuclearizing the Middle East as a strategy for increasing Israel’s national security. I discuss the reasons for this in great detail in the next chapter. For the purpose of the present chapter, it suffices to note that nuclear disarmament remains the *only* topic that is not being discussed in Israel’s nuclear public sphere. Every other aspect of Israel’s nuclear project – strategic-political, economic, environmental, etc. – can and has been discussed extensively by Israeli journalists, academics, and other experts.

Before concluding this section, I would like to emphasize that the Censura’s according-to-foreign-sources policy did not mean that anything goes. While Israelis were free to discuss the nuclear issue by referring to foreign sources, the Censura continued to ban publications that contained Israeli-originated information about the nation’s nuclear project. In June 1980, for example, the Censura prevented the publication of a manuscript entitled *None Will Survive Us: The Story of the Israeli A-Bomb* by two Israeli journalists, Eli Teicher and Ami Dor-On. The Censura prohibited its publication “wholly or partially, in Hebrew or in translation, since its publication would be damaging to the defense of Israel”. Teicher and Dor-On were further warned “that disclosure of the information contained in their manuscript would bring them a sentence of 15 years to life in

⁴⁰⁴ Beres, L. R. ‘Reconsidering Israel’s Nuclear Ambiguity’, *Ha’aretz*, 06 March 2009. Available at: <https://www.haaretz.com/1.5084347>. Last accessed: February 19, 2018. See also Beres, L. R. ‘Israel’s Nuclear Doctrine: Clarification, Codification and Disclosure’, *The Jerusalem Post*, 07 September 2014. Available at: <https://www.jpost.com/Experts/Israels-nuclear-doctrine-Clarification-codification-and-disclosure-374670>. Last accessed: February 19, 2018; and Beres, L. R. & Chain, J. T. ‘Deterrent and Defense Against a Nuclear Iran’, *Ha’aretz*, 27 June 2011. Available at: <https://www.haaretz.com/1.5023897>. Last accessed: February 19, 2018.

prison”.⁴⁰⁵ Likewise, in 1996 the Censura prohibited the publication of Avner Cohen’s seminal book *Israel and the Bomb* because it contained Israeli sources like interviews with former government officials and declassified historical documents from Israeli archives. One item specifically bothered the MALMAB: the minutes of a meeting chaired by Levi Eshkol, in which the prime minister explicitly said: “We have a [plutonium] reprocessing plant”. The statement was problematic because it amounted to an official confirmation of the purpose of the Dimona nuclear complex. What made matters even worse was that Cohen published his book in the United States and even put the sensitive document on his personal website for all to see. Yechiel Horev, head of MALMAB, was furious and sent a team of investigators to the state archives to find out who had authorized the declassification of the document and why. Cohen could not be prosecuted at that time because he was living outside of Israel. However, when he returned to Israel in March 2001 to take part in an academic conference, he was interrogated for about fifty hours by MALMAB officials and formally charged with possession, disclosure, and transfer of secret information (these charges were later dropped).⁴⁰⁶

4.3 Conduct and Counter-Conduct in Israel’s Nuclear Public Sphere

In this section, I analyze how Israel’s nuclear bureaucracy (IAEC, MALMAB, Censura) is enforcing the according-to-foreign-sources rule and how this is being resisted by a small group of Israeli journalists from the governmentality perspective developed in chapter one.

⁴⁰⁵ Cochran, ‘Israel’s Nuclear History’, p. 146.

⁴⁰⁶ The Cohen case is discussed in Benn, A. ‘Israel: Censoring the Past’, *Bulletin of the Atomic Scientists*, vol. 57, no. 4 (July/August 2001), pp. 17-19. The Eshkol quote is on p. 18.

4.3.1 Conduct

The foregoing discussion has made two points. First, that there has been a steady relaxation of censorship regarding the Israeli nuclear issue since the mid-1970s, which gave Israelis unprecedented freedoms to write about the topic; and second, that Israeli journalists, academics, and other experts have used these new freedoms to write about every possible aspect of Israel's nuclear project (with the exception of nuclear disarmament). Indeed, the Censora prides itself that, contrary to popular belief, Israelis can and do discuss their country's nuclear project. As former chief military censor, Brigadier-General Itzhak Sheni put it:

If you take all the stories about the atomic bomb that have appeared in the Israeli press—from its sources and with the approval of the censor—you'll see that the contention that no discourse on the subject exists in Israel is simply incorrect. Anyone who wants to delve into the issue can do so, as long as he goes about in an appropriate manner [i.e. by adhering to the according-to-foreign-sources regulation].⁴⁰⁷

In a parallel fashion, when I confronted Ariel Levite, former Principal Deputy Director General for Policy at the IAEC, with Cohen's taboo argument, he responded saying:

There is no taboo [in Israel]! There is a debate!... The only aspect which is considered a military secret is what we have... So, they [the Censora] said to Israeli journalists: "you know what, you want to say its 60? Quote a foreign source! You want to say we have 200? Quote a foreign source! You want to say we have nothing? Quote a foreign source!" That's the *only* restriction that exists... talking about [Israel's] physical [nuclear] capabilities. To let a public debate occur [in Israel], the compromise was... not quoting Israeli sources on what exists, you can use foreign sources to inform the debate. So, what I tell to people is: "you think your debate is sterile because you cannot talk about quantities and numbers and so on? You can, just don't quote Israeli sources".⁴⁰⁸

But why do elites in charge of Israel's nuclear program insist on the according-to-foreign-sources regulation? Why is this rule "non-negotiable"? And how is it enforced? In other words, what are

⁴⁰⁷ Quoted in Cohen, 'Nuclear Ambiguity and the Media', p. 536.

⁴⁰⁸ Interview with Levite, 20 December 2016.

the governmental rationalities and technologies through which Israel's nuclear bureaucracy regulates the national Israeli nuclear discourse? To answer these questions, I have adopted an indirect research approach which consisted of interviewing Israeli journalists who are critical of the according-to-foreign-sources policy and who try to resist it.

To be sure, these journalists neither oppose the Israeli bomb, nor the policy of nuclear ambiguity. Just like the rest of the Israeli society, they support the ambiguity policy and appreciate the many advantages it gives Israel over its adversaries. As Melman put it, "I don't have much respect for our leaders or their decisions, but I think that nuclear ambiguity is one of the cleverest, most sophisticated, and imaginative policies our leaders have ever come up with".⁴⁰⁹ However, while supporting ambiguity as a national nuclear strategy at the international level, Melman and others oppose its translation into a code of discourse and a system of censorship at the domestic level. As Aluf Benn, Editor-in-Chief of *Ha'aretz*, put it:

I think that nuclear ambiguity is a good policy and I don't see any reason to change it at the official level... I can also understand why certain operational or technical details [regarding Israel's nuclear program] should be hidden from the public... But the idea that we can't even discuss the true nature of things and have to use all kinds of euphemisms and ambiguities ourselves is ridiculous... Why should I, or the anchor from Channel 2, or a blogger, or any other person, why should we represent ambiguity.⁴¹⁰

Elites in charge of Israel's nuclear program, Benn argues, justify the according-to-foreign-sources policy by arguing that "the fact that there is an official censorship institution in Israel [the Censora], which is based on prepublication review, makes it impossible for Israeli journalists to freely discuss the nuclear issue in the Israeli media". "Their logic is", Benn argues, "if we report on the nuclear issue inside Israel without quoting foreign sources, outside of Israel it will amount to an

⁴⁰⁹ Interview with Melman, 10 December 2015.

⁴¹⁰ Interview with Benn, 30 November 2015.

official confirmation by the Israeli government... because we have to pass official censorship”. Thus, according to this logic, Israeli journalists are de facto government officials because anything they write has an “officials stamp”.⁴¹¹ Accordingly, Israeli journalists are expected to act like government officials and neither confirm nor deny whether Israel has nukes.

Another strategy the Censura employs to keep Israeli journalists in line with its rationality is to alert them to the fact that their words carry a certain weight because of their status and prestige.

As Melman explained to me:

The Censura’s argument is “you are a prestigious journalist, you have a certain status, and therefore they [the enemy] take you more serious than others”. For example, once I was summoned to a meeting with a senior intelligence officer who played me a cassette of a conversation between two senior Hezbollah officials... During the conversation one of them said: “Yossi Melman wrote it, so it must be true!” So, for the Hezbollah, what I wrote was considered almost as a fact of life. The Censura wanted to show me how important it is to be careful... Because whatever I write, or other Israeli journalists write, the enemy will believe that it is god’s word... So, this is one of the arguments in the nuclear issue... If you write it, the world will believe you... even if it wasn’t confirmed by an Israeli official... And because of this argument they have played me this tape... to say: “you see, maybe you think you are not important, but the other side believes you!”⁴¹²

Thus, elites in charge of Israel’s nuclear program do not try to impose their preferred way of writing about the nuclear issue from above, but rather seek to regulate and steer the actions of Israeli journalists through ‘techniques of responsabilization’.⁴¹³ Indeed, most Israeli journalists accept and voluntarily comply with the according-to-foreign-sources rule. For example, in his New York Times best-seller *My Promised Land: The Triumph and Tragedy of Israel*, the Israeli journalist Ari Shavit informs his readers at the beginning of a chapter that discusses the Dimona

⁴¹¹ Ibid.

⁴¹² Interview with Melman, 10 December 2015.

⁴¹³ I borrow the term from Rose, N. *Powers of Freedom: Reframing Political Thought* (Cambridge: Cambridge University Press, 1999), p. 74.

project that Israeli state policy does not allow Israelis to freely discuss the nuclear issue. “I respect this policy and I obey it”, Shavit writes, “and I cleared this chapter with the Israeli censor”.⁴¹⁴

4.3.2 Counter-conduct

However, as I have argued in chapter one, there is no conduct without counter-conduct, that is, “struggles against the processes implemented for conducting others”.⁴¹⁵ Indeed, there are a number of Israeli journalists as well as academics who question the rationale behind the according-to-foreign-sources policy and try to resist it. The Israeli academic Alan Dowty, for example, argues that there is “no justification for a continuation of the policy”. “Even if official non-acknowledgement remains the order of the day”, Dowty contends, “there is no credible reason for forcing the media and the academic world to perform as instruments of state policy... In light of the history of academic and public discussion of the issue, the rationale and continuing relevance of this policy are increasingly dubious”.⁴¹⁶ Indeed, according to the Israeli nuclear historian Adam Raz, the main aim of the according-to-foreign-sources policy is not to protect state security or the country’s foreign relations, but rather to hide information that could cast public officials in a negative light. To be sure, Raz believes that there are certainly some individuals within Israel’s nuclear bureaucracy (especially in the MALMAB) who genuinely fear that once Israelis begin talking about their country’s possession of nuclear weapons as a fact (i.e. without quoting foreign sources), it will amount to an official confirmation that will make it impossible for Israel to maintain its ambiguity policy. However, Raz suspects that the main reason why Israelis are not

⁴¹⁴ Shavit, A. *My Promised Land: The Triumph and Tragedy of Israel* [Kindle Version] (New York: Spiegel & Grau, 2013), p. 329.

⁴¹⁵ Foucault, M. *Security, Territory, Population: Lectures at the Collège de France, 1977-1978* (Basingstoke: Palgrave-Macmillan, 2007), p. 201.

⁴¹⁶ Dowty, A. ‘The Enigma of Opacity: Israel’s Nuclear Weapons Program as a Field of Study’, *Israel Studies Forum*, vol. 20, no. 2 (2005), p. 19.

allowed to use Israeli-originated information is to hide inconvenient information about Israeli leaders' decisions in the nuclear field from the general public.⁴¹⁷

During my field trip in Israel, I found out that for many years critical journalists and academics have been challenging and resisting the Censora's according-to-foreign-sources policy by using their foreign contacts. As Benn explained to me:

If I want to write about the nuclear issue, I simply do my research and write the article. I then ask colleagues working for newspapers outside of Israel to publish it... All I need to do once my article is published in the foreign media is to write another one for the Israeli press... which essentially makes the same arguments, with the only exception that it refers to my original article in the foreign media as a source. In this way, I can inform my readers about important developments in the nuclear field without violating any of the rules of the Censora.⁴¹⁸

Foreign reporters based in Israel, who are also obliged to submit security-related articles for prepublication review, are using the same technique to circumvent the Censora. As *New York Times* reporter Jodi Rudoren explains:

In the past, The Times (and many other outlets) published important stories, which Israel prohibited, by writers outside Israel, thus meeting readers' needs without risking our local credentials. A prime example was Israel's 2007 attack on a Syrian nuclear reactor, which in the Israeli news media is still something known only "according to foreign reports." The Times published an article on the subject written by reporters in Washington.⁴¹⁹

⁴¹⁷ Interview with Adam Raz, nuclear historian, 04 January 2016. See also Raz, A. 'What Is Israel Hiding About Its Nuclear Program in the 50s?', *Ha'aretz*, 12 June 2018. Available at: <https://www.haaretz.com/israel-news/premium-what-is-israel-hiding-about-its-nuclear-program-in-the-50s-1.6269520>. Last accessed: November 07, 2018.

⁴¹⁸ Interview with Benn, 30 November 2015.

⁴¹⁹ Rudoren, J. 'Military Censorship in Israel', *The New York Times*, 04 August 2014. Available at: <https://www.nytimes.com/times-insider/2014/08/04/on-censors-and-gag-orders-in-israel/>. Last accessed: January 14, 2018.

Elites in charge of Israel's nuclear program know about this practice and tolerate it because it does not endanger Israel's ambiguity policy. As long as Israeli journalists are not passing any classified information to their foreign colleagues and keep referring to foreign sources when they publish in Israel, their practices are perfectly in line with the two cornerstones of Israel's official nuclear ambiguity policy: secrecy and non-acknowledgement.⁴²⁰

However, according to the Israeli academic Yoel Cohen, the discursive practices of Israeli journalists are not only in line with the official nuclear ambiguity policy, but also reinforce certain aspects of it. "By qualifying whatever is written about nuclear policy as 'according to foreign sources'", Cohen argues, "the media, lest it appear to confirm possession of the bomb, has in fact been recruited by the Israeli government as an integral part of the country's deterrent posture".⁴²¹ In order to fully understand Cohen's argument, it is helpful to briefly revisit some of the findings of the previous chapter. The 1969 Nixon-Meir deal committed Israel to keep the fact that it possesses nuclear weapons secret, which made it difficult for Israeli leaders to turn their country's nuclear weapons into an effective deterrent. To create an existential nuclear deterrent, without violating the 1969 agreement, Israeli policymakers indirectly hinted at the existence of an Israeli nuclear arsenal through, leaks, veiled statements, the spread of rumors, and so on. Yet, when asked directly about Israel's nuclear capabilities, Israeli leaders neither confirmed nor denied whether Israel possessed nukes. As a result of this policy of strategic nuclear ambiguity, regional and international perceptions of Israel's status as nuclear-weapon state became less opaque during the 1970s and 1980s. For example, in 1974 the Egyptian Foreign Minister Nabil Fahmy told a group of U.S. officials that "*should* Israel produce nuclear weapons, Egypt will have the right to acquire

⁴²⁰ Interview with Levite, 20 December 2016.

⁴²¹ Cohen, 'Nuclear Ambiguity and the Media', p. 536.

this weapon in order to maintain her strategic integrity”. In a parallel fashion, Syrian President Hafez Assad declared in 1977 that “*If* Israel possesses this weapon, then we will possess it [also]”.⁴²² However, the two quotations also show that while Israel’s regional adversaries were suspecting that Israel was in possession of nuclear weapons, they were not one hundred percent sure whether this was actually the case. According to Cohen, one of the reasons why Israel’s nuclear bureaucracy decided in the mid-1970s to allow Israelis to publicly discuss their country’s nuclear program was to make Israel’s nuclear deterrent more visible inside Israel and, by doing so, more credible outside of Israel. The more Israeli journalists, academics, and others would write about the nuclear issue, the more suspicion would occur outside of Israel that Israel possessed the bomb. When I asked Benn what he thinks about Cohen’s argument, he acknowledged that the relaxation of censorship regarding the nuclear issue might indeed have been a way of creating an “extra deterrent”, but only during the early years of ambiguity, when no one knew for certain whether or not Israel was in possession of the bomb.⁴²³

Furthermore, while the discursive practices of Israeli journalists have contributed to bolster Israel’s deterrent posture at the international level, inside of Israel they have helped to decrease Israeli fears about conventional attacks by regional adversaries. One of the major drawbacks of Israel’s ambiguity policy, especially in the early years, was that Israelis could never be one hundred percent sure that their country possessed nuclear weapons. Indeed, in a survey from 2007 “about three-quarters of Israelis indicated that they would feel safer if they knew for certain that Israel had

⁴²² Quoted in Cochran, E. S. ‘Israel’s Nuclear History’, *Israel Affairs*, vol. 6, no. 3-4 (2000), p. 144 (emphasis added).

⁴²³ Interview with Benn, 30 November 2015.

nuclear weapons”.⁴²⁴ Hence, some information about Israel’s nuclear program had to find its way into the public domain to ease perpetual Israeli fears that the Arabs may one day wage a devastating conventional military campaign against Israel. Indeed, Benn argues that in times of serious political crisis, the Israeli government even encouraged Israeli newspapers to write about the nuclear issue. For example, during the first Gulf War, when Saddam Hussein threatened to attack Israel with chemical weapons, Israeli journalists were invited to visit submarine hangars and encouraged to write about the possibility that, in case of an Iraqi attack, Israeli submarines could retaliate with nuclear-tipped ballistic missiles. This, Benn argues, was aimed to both deter Iraq from attacking Israel and to alleviate growing Israeli fears of an imminent Iraqi WMD attack. Something similar, Benn claims, has happened with respect to Iran and its nuclear program, especially after former Iranian President Mahmoud Ahmadinejad threatened to “wipe Israel off the map”.⁴²⁵

4.4 Conclusion: The Israeli Nuclear Issue: Neither *Tapu* nor *Noa*

The English word *taboo* is derived from the Polynesian word *tapu*, meaning forbidden, sacred, or banned from general use. The converse of *tapu* in Polynesian is *noa*, which means common or generally accessible.⁴²⁶ “*Tapu* and *noa* are mutually exclusive. The abrogation of a taboo creates a state of *noa* regarding the tabooed object or the sphere or arena in which the taboo has been in operation”.⁴²⁷ From 1958 until the late 1960s, when Israel pursued a policy of total nuclear secrecy, the nuclear issue was indeed taboo in Israel. During this time, the IAEC and MALMAB used the

⁴²⁴ ‘Poll: Most Israelis support using nukes’, *The Jerusalem Post*, 10 January 2007. Available at: <http://www.jpost.com/Israel/Poll-Most-Israelis-support-using-nukes>. Last accessed: February 13, 2017.

⁴²⁵ Interview with Benn, 30 November 2015.

⁴²⁶ Freud, S. *Totem and Taboo: Some Points of Agreement between the Mental Lives of Savages and Neurotics* (London: Routledge, 2004 [1913]), p. 21.

⁴²⁷ Steiner, F. B. *Selected Writings, Volume 1: Taboo, Truth, and Religion* (New York: Berghahn Books, 1999), p. 125.

Censora to remove the nuclear issue from use (and thus visibility) in public discourse. However, since the mid-1970s, when Israel adopted a policy of strategic nuclear ambiguity, there has been a steady relaxation of censorship regarding the nuclear issue, which gave Israelis unprecedented freedoms to write about the topic. One of the aims of this chapter was to show that, contrary to what scholars like Cohen and Karpin claim, Israeli journalists, academics, and other nuclear experts have used these new freedoms to write about almost every possible aspect of Israel's nuclear project.

However, this chapter also showed that relaxation of censorship did not lead to a state of *noa* regarding Israel's nuclear issue. While today Israelis are free to discuss every aspect of their country's nuclear project, they are still obliged to quote foreign sources in any factual reference to the Israeli bomb. Elites in charge of Israel's nuclear program insist on the according-to-foreign-sources rule because they fear that once Israelis begin writing about their country's nuclear weapons as a fact (i.e., without referring to foreign sources), it will amount to an official confirmation that will make the official ambiguity policy impossible. However, rather than trying to impose the according-to-foreign-sources rule from above, the Censora seeks to regulate and steer the actions of Israelis through ideas of responsible and consenting subjectivities. Indeed, most Israelis accept and voluntarily comply with the according-to-foreign-sources rule.

Nevertheless, the chapter has also shown that there is a small group of Israeli journalists who rejects the rationale behind the according-to-foreign-sources regulation and tries to resist. It is important to note, however, that these journalists neither oppose the Israeli bomb, nor the nuclear ambiguity policy that is guarding it. Just like the rest of the Israeli society, they support ambiguity

as a national nuclear strategy and appreciate the many advantages it gives Israel over its adversaries. However, while supporting ambiguity at the international level, they oppose its translation into a code of discourse and a system of censorship at the domestic level. In the following chapter, I examine two rare cases of resistance against the Israeli bomb, its accompanying infrastructure, and the nuclear ambiguity policy that is guarding both.

CHAPTER 5: CONFRONTING ISRAEL’S BOMB IN THE BASEMENT: VANUNU, THE ISRAELI DISARMAMENT MOVEMENT, AND THE LIMITS OF ANTINUCLEAR ACTIVISM IN ISRAEL⁴²⁸

In this chapter, I examine two rare cases of resistance against the Israeli bomb and the ambiguity policy that is guarding it. The first part of the chapter examines the case of Mordechai Vanunu, a former Dimona worker who in 1986 revealed details of Israel’s nuclear weapons program to the London *Sunday Times*. The second part of the chapter examines the case of the Israeli Disarmament Movement (IDM), Israel’s first grassroots antinuclear movement.

5.1. Vanunu, the Israeli Bomb, and the Limits of Fearless Speech

In the fall of 1986, Israel’s policy of nuclear ambiguity faced its most severe challenge when Mordechai Vanunu, a former junior technician at the Negev Nuclear Research Center (NNRC), told the London *Sunday Times* all he knew about Israel’s nuclear secrets. Why did Vanunu decide to blow the whistle on Israel’s nuclear secrets? How did he make the Israeli bomb public? What were the effects of his revelations in Israel and abroad? How did his revelations affect Israel’s nuclear ambiguity policy? And what did it cost Vanunu to tell the truth about Israel’s nuclear program? In the following, I analyze the ‘Vanunu Affair’ through Michel Foucault’s analytic of ‘*parrhēsia*’. As discussed in chapter one, *parrhēsia* is a particular mode of truth telling (‘fearless speech’) that Foucault locates in Ancient Greece. To qualify as *parrhēsia*, a speech act has to fulfill five criteria. It has to be (1) frank, (2) truthful, (3) dangerous, (4) critical, and (5) committed out

⁴²⁸ An earlier version of this chapter has been published as Diskaya, A. ‘Don’t Ask, Don’t Tell: The Israeli Nuclear Taboo and the Limits of Global Governmentality’, in E. Akçalı (ed.), *Neoliberal Governmentality and the Future of the State in the Middle East and North Africa* (New York: Palgrave-Macmillan, 2015), pp. 105-22.

of duty.⁴²⁹ Vanunu's activity, I argue, possesses many of the hallmarks and characteristics of *parrhēsia*. However, the aim of this chapter is not to simply 'apply' this analytical framework to the Vanunu case, but rather to use the Vanunu Affair to examine some important shifts in *parrhēsia*. As such, the chapter is a contribution to an emerging body of literature that is examining forms of 'parrhēsia today'.⁴³⁰

5.1.1 Taking Israel's Bomb Out of the Basement: Vanunu's leak as a Modern Form of *Parrhēsia*

Frankness. In *parrhēsia*, the speaker or the parrhesiast is supposed to give a complete and exact account of what s/he has in mind, without hiding any information. When Vanunu contacted the *Sunday Times* and offered his story, Andrew Neil, the newspaper's lead editor, sent Peter Hounam, a reporter who possessed a physics degree, to Australia to meet Vanunu. Over a two-week period, Vanunu described to Hounam in detail the structure of and activities within Israel's secret nuclear complex. Vanunu told Hounam that the NNRC was divided into ten different 'machons' (Hebrew for 'institutes' or 'facilities'), each occupying a different building. From a nonproliferation perspective, Machons 1 and 2 were the most important – Machon 1 containing a natural uranium-fueled nuclear reactor (commonly known as Dimona reactor) and Machon 2 a plutonium separation (or reprocessing) plant.⁴³¹ Thus, Vanunu confirmed to Hounam what the U.S. intelligence community was suspecting for more than two decades, namely, that Israel was chemically separating and recovering fissionable plutonium from the spent uranium fuel of the

⁴²⁹ See Foucault, M. *Fearless Speech* (Los Angeles, CA: Semiotext(e), 2001), pp. 12-20.

⁴³⁰ Walters, W. 'Parrhēsia Today: Drone Strikes, Fearless Speech and the Contentious Politics of Security', *Global Society*, vol. 28, no. 3 (2014), pp. 277-99.

⁴³¹ For brief descriptions of machons 1-10, see Nuclear Threat Initiative (NTI), 'Negev Nuclear Research Center (NNRC)', 11 November 2011. Available at: <https://www.nti.org/learn/facilities/418/>. Last accessed: December 27, 2018.

Dimona reactor. However, according to Vanunu, Machon 2, which consisted of 8 floors (2 floors above ground level and 6 hidden below ground), contained not only a plutonium separation plant, but also a lithium-6 separation plant as well as a tritium production facility. This was of immense significance, for it meant that Israel had the potential to both enhance the efficiency and yield of its nuclear weapons and to build thermonuclear weapons, which were thousand times more powerful than ordinary A-bombs. To substantiate his claims, Vanunu provided 57 color photographs of the Dimona nuclear complex, which he had taken covertly in late 1985, shortly before quitting his job at the NNRC. Vanunu's photographs included interior pictures of Machon 2, showing control rooms and panels, gloveboxes, models of weapons components, etc. (See Figures 5.1-5.4).⁴³² A nuclear expert who interviewed Vanunu on behalf of the *Sunday Times* later said that Vanunu was "very straightforward about his work at Dimona and about what he did and did not know" and that he "made no attempt to discuss matters outside his experience and knowledge". This, together with the photographs he brought with him, the expert said, "considerably increased his credibility".⁴³³

⁴³² The photographs below are taken from Vanunu's personal website, see Vanunu, M. 'My Photos of Dimona - 1985'. Available at: <http://www.vanunu.com/dimona/pix.html>. Last accessed: December 27, 2018.

⁴³³ Barnaby, F. 'Expert Opinion in the Matter of Mordechai Vanunu', Testimony before the Israel High Court, 14 June 2004, p. 2. Available at: <https://fas.org/nuke/guide/israel/barnaby.pdf>. Last accessed: December 27, 2018.

Figure 5.1 Control room of plutonium separation plant at Machon 2



Figure 5.2 Control panel for lithium-6 production at Machon 2



Figure 5.3 Looking inside a glovebox for tooling nuclear materials at Machon 2

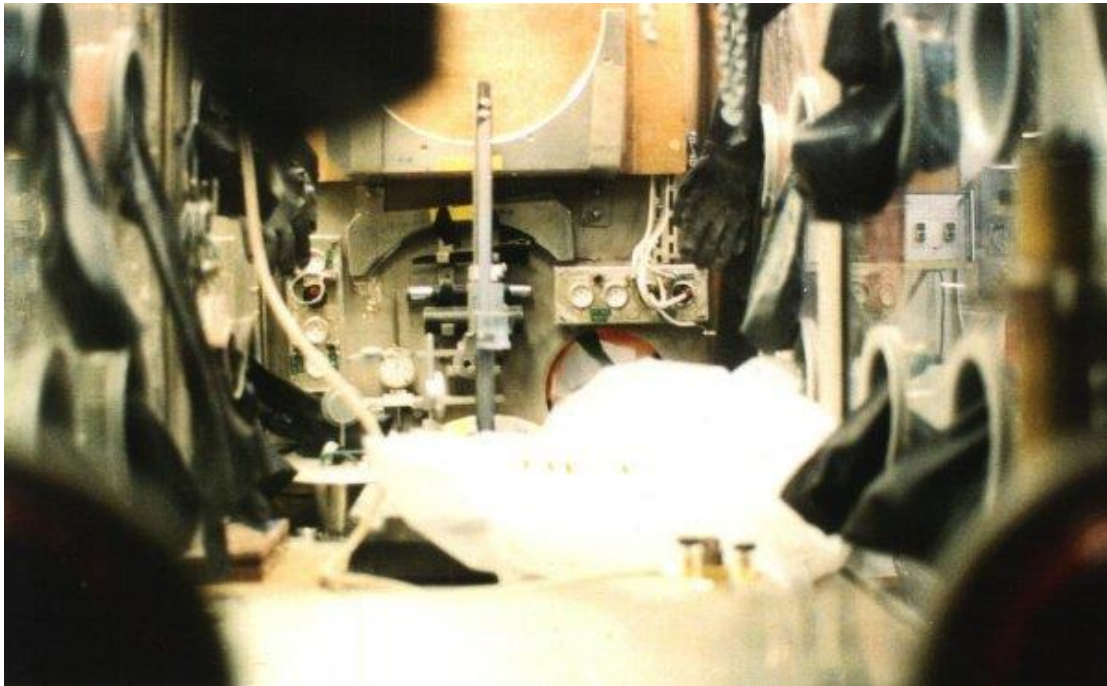
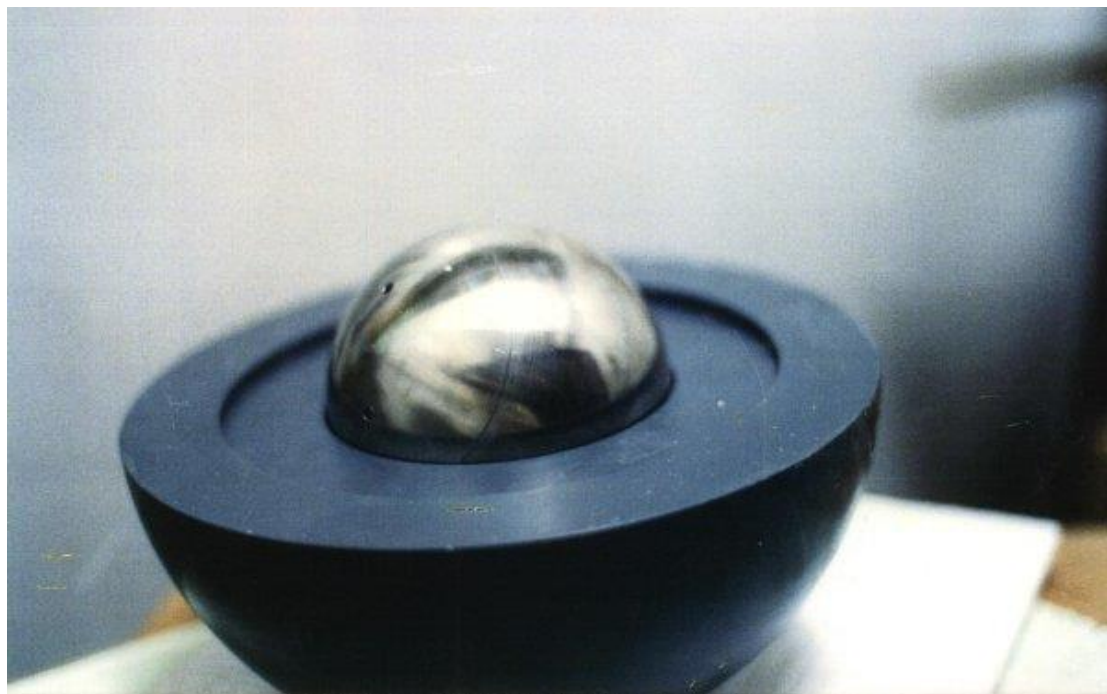


Figure 5.4 Laboratory model of nuclear weapons core located at Machon 2



Vanunu's frank speech points to two important shifts in *parrhēsia*. First, the fact that Vanunu was a junior technician working within the Dimona nuclear complex, that he revealed technical details regarding the production of sensitive materials at Machon 2, suggests that what we are seeing in this case is some combination of *parrhēsia* and *tekhnē*.⁴³⁴ Indeed, in *The Courage of the Truth*, Foucault observes that *parrhēsia* in its pure (i.e. ancient Greek) form has largely disappeared from modern society. Today, Foucault argues, we can find the "parrhesiastic modality" only as something "grafted on or underpinned" by one of the other three modes of truth telling (*tekhnē*, prophecy, and sage).⁴³⁵ Second, the fact that Vanunu's medium for truth telling was not just the spoken word but also the visual image, suggests that *parrhēsia* can be visual as well as verbal; a 'visual *parrhēsia*' so to say.⁴³⁶ Indeed, according to William Walters, "*parrhēsia* today will only occasionally take the form of pure verbal expression". "Much more likely", Walters argues, "we will encounter it as some combination of words, sounds and images". He continues:

Indeed, we could go so far as to speculate that in a social world for which communication has become so bound up with the visual, in a modern environment ever more 'thickened' by photographs and other communicative objects, that 'speaking out' with words alone is the exception rather than the norm.⁴³⁷

Truth. The second characteristic of *parrhēsia* is that there is always an exact coincidence between belief and truth. In *parrhēsia*, the parrhesiast has no doubt about his or her possession of the truth. As Foucault put it, "The *parrhesiastes* is not only sincere and says what is his opinion, but his opinion is also the truth. He says what he *knows* to be true".⁴³⁸ But how can the addressees of *parrhēsia* be certain that what the alleged parrhesiast believes is, in fact, the truth? In ancient Greek

⁴³⁴ See Walters, 'Parrhēsia Today', p. 284.

⁴³⁵ Foucault, M. *The Courage of the Truth (The Government of Self and Others II): Lectures at the Collège de France, 1983-1984* (Basingstoke: Palgrave-Macmillan, 2011), p. 30.

⁴³⁶ See Jay, M. 'Visual Parrhēsia? Foucault and the Truth of the Gaze', in Jay, M. (ed.), *Essays from the Edge: Parerga and Paralipomena* (Charlottesville, VA: University of Virginia Press, 2011), pp. 77-89.

⁴³⁷ Walters, 'Parrhēsia Today', p. 293.

⁴³⁸ Foucault, *Fearless Speech*, p. 14.

culture, Foucault argues, this question was never asked: “in the Greek conception of *parrhēsia*... there does not seem to be a problem about the acquisition of the truth since such truth-having is guaranteed by the possession of certain moral qualities”, first and foremost courage. “If there is a kind of ‘proof’ of the sincerity of the *parrhesiastes* it is his *courage*. The fact that a speaker says something dangerous—different from what the majority believes—is a strong indication that he is a *parrhesiastes*”.⁴³⁹

However, Vanunu’s experience shows that claiming validity via personal qualities (e.g., courage in the face of danger) may no longer be possible today. The *Sunday Times* journalists were certainly aware that Vanunu was taking a great risk in revealing Israel’s nuclear secrets. Indeed, one of them, Robin Morgan, even warned Vanunu that he was risking his freedom and possibly also his life and that he should reconsider what he was about to do:

[We] aren’t policemen. We won’t be able to give you a new identity, or protect you for the rest of your life. One thing you should understand is that no story in the world is worth your freedom or your life. Whatever happens, Israel is not going to be very happy. You’ve got to very, very seriously think about your life and what’s going to happen to you. We can look after you for a year, maybe. But what happens to you in five years? Ten years? It’s your decision. It’s not my decision... You have to decide now. Do you want to carry on with what we’re doing?⁴⁴⁰

“Yes”, Vanunu replied unperturbed. Vanunu’s courage in the face of danger impressed the *Sunday Times* journalists and gave Vanunu’s words and images a certain force. However, at the same time, the journalists insisted to independently verify Vanunu’s information before making them public. A reporter, Max Prangnell, was sent to Israel to find people who knew Vanunu and verify his

⁴³⁹ Ibid., p. 15.

⁴⁴⁰ Quoted in Toscano, L. *Triple Cross: Israel, the Atomic Bomb & the Man Who Spilled the Secrets* [Kindle Version] (St. Louis, MO: Newstead books: 2013 [1990]), p. 120.

personal information. Some people at Ben-Gurion University, where Vanunu had studied and worked, were able to identify Vanunu from a photograph while his former neighbors confirmed to Prangnell that he had worked at the NNRC.⁴⁴¹

However, while Vanunu's acquaintances could confirm that he had worked at the Dimona nuclear complex, the *Sunday Times* was unable to get independent information that he was one of the select few who had access to Machon 2 where, according to Vanunu, plutonium, lithium-6, and tritium was produced. In order to verify Vanunu's claim to have worked as a technician at Machon 2 on sensitive operations, *The Sunday Times* asked Dr. Frank Barnaby, a nuclear physicist who had worked for six years at the British Atomic Weapons Establishment at Aldermaston, to interrogate Vanunu. "I very vigorously cross-examined Vanunu, relentlessly asking the same question in a number of different ways and at different times", Barnaby said. "This cross examination of Vanunu", Barnaby concluded, "convinced me that he had, as he claimed, worked as a technician on several processes in Dimona".⁴⁴² Following the debriefing with Vanunu, Barnaby was left in no doubt that Israel possessed nuclear weapons. Indeed, the information Vanunu gave about the annual plutonium production rate at Machon 2 enabled Barnaby to calculate that Israel possessed approximately 150 nuclear weapons. Barnaby was also able to confirm Vanunu's information regarding lithium-6 and tritium production at Dimona, which "suggested that Israel had more advanced nuclear weapons than Nagasaki-type weapons".⁴⁴³

The *Sunday Times* editors trusted Barnaby's judgement; however, given the significance of the

⁴⁴¹ Cohen, Y. 'Vanunu, *The Sunday Times*, and the Dimona question', *Israel Affairs*, vol. 16, no. 3 (2010), p. 419.

⁴⁴² Barnaby, 'Expert Opinion in the Matter of Mordechai Vanunu', p. 2.

⁴⁴³ *Ibid.*, p. 4.

story, they decided to obtain another expert opinion by an internationally renowned nuclear scientist who would be willing to add his name to the authenticity of Vanunu's story. To this end, the paper approached Dr. Theodore Taylor, an American nuclear physicist who had worked at the Los Alamos National Laboratory from 1948 to 1956, where he designed atomic weapons. At that time, Taylor, who had been taught by Robert J. Oppenheimer (the 'father' of the atomic bomb), was one of the world's most experienced and well-respected nuclear weapon experts. After carefully examining Vanunu's photographs and the transcript of his debriefing with Barnaby, Taylor concluded that there could be no doubt that "Israel is, and for at least a decade has been, a fully-fledged nuclear weapons state". "The Israeli nuclear weapons program", Taylor added, "is considerably more advanced than indicated by any previous report or conjectures of which I am aware".⁴⁴⁴

Thus, Vanunu's words and images carried a certain force due to the fact that he risked so much to make them public. However, his courage in and of itself was not enough to convince the journalists that what he was telling and showing was the truth. His words and images were put into circulation and placed before a wider audience only after they had satisfied certain journalistic and scientific criteria of veracity.

Danger. Someone is said to use *parrhēsia* and merits consideration as a parrhesiast only if there is a risk or danger for him or her in telling the truth. Foucault gives us the example of "the philosopher addressing himself to a sovereign, to a tyrant, telling him that his tyranny is disturbing and

⁴⁴⁴ Quoted in 'Revealed: the secrets of Israel's nuclear arsenal', *The Sunday Times*, 05 October 1986. Available at: <https://www.thetimes.co.uk/article/from-the-archive-the-secrets-of-israels-nuclear-arsenal-revealed-vp3fdssqrpq>. Last accessed: December 27, 2018.

unpleasant because tyranny is incompatible with justice”. Such a speech act, Foucault argues, is risky and dangerous “since the tyrant may become angry, may punish the philosopher, may exile him, may kill him”.⁴⁴⁵ In a recent article Walters notes that:

The parrhesiastic speech that Foucault reconstructs from the Ancient world is always specifically located speech. It happens in particular places and social contexts: in the agora before an assembly of citizens, in the court before a king, or, removed from public view, in the ear of the tyrannical prince. It seems that for *parrhēsia* to happen, all the players in the parrhesiastic game have to be physically present at the same time.⁴⁴⁶

However, the Vanunu case shows that *parrhēsia* might no longer be performed or experienced in this way. Vanunu neither directly confronted the Israeli government nor the Israeli public, the main addressee of his fearless speech. Instead, he revealed his truth in relative safety to a newspaper outside of Israel. Soon after the publication of the *Sunday Times* article, Israeli newspapers translated Vanunu’s story into Hebrew and reprinted it in Israel where it reached his target audience. But does this still count as *parrhēsia*? As Walters asks: “Is it still *parrhēsia* if an angry crowd cannot immediately stone you, or the king cast you into prison? Is it still *parrhēsia* if a vast ocean separates you from the addressees of your frank criticism?”⁴⁴⁷ The Vanunu case shows that it is not only the power and the scale of communication that have been extended since the ancient time, but also the technologies of violence and retribution by which the affronted sovereign can respond to the parrhesiast. In February 2004, former Mossad director Shabtai Shavit revealed that the Mossad initially considered assassinating Vanunu: “I would be lying if I said the thought [assassination] did not go through many of our minds”. However, this option was ultimately

⁴⁴⁵ Foucault, *Fearless Speech*, p. 16.

⁴⁴⁶ Walters, ‘*Parrhēsia Today*’, p. 285.

⁴⁴⁷ *Ibid.*, p. 286.

rejected because “Jews don’t do that to other Jews”.⁴⁴⁸ Instead, the Mossad decided to abduct Vanunu and bring him back to Israel to stand trial for treason and espionage. On 30 September 1986, before the *Sunday Times* had even printed his story, a female Mossad agent (codenamed ‘Cindy’) lured Vanunu from London to Rome, where he was seized by Mossad officers, forcibly drugged, and covertly transported to a secret detention center in Israel. On 28 March 1988, Vanunu was sentenced to 18 years in prison, 11 of which he spent in solitary confinement in a two-by-three meter cell. Thus, the Vanunu case shows that “to speak out is sometimes to risk everything, no matter where you go on earth”.⁴⁴⁹

Criticism. The aim of *parrhēsia* is not to demonstrate the truth to a more powerful other, but rather to criticize the interlocutor in an attempt to bring about positive change. As Walters put it:

The parrhesiast is prepared to risk much in voicing an uncomfortable truth. At the same time they hope that, precisely because they speak frankly and courageously, their words might strike a chord with the sovereign or with the demos. As a consequence, there is always the hope in *parrhēsia* that this frank speech will have a positive impact on the affairs of the community.⁴⁵⁰

When Barnaby asked Vanunu in 1986 about his motives for blowing the whistle on Israel’s nuclear secrets, the latter replied that the hypersecrecy surrounding Israel’s nuclear program was unacceptable and that “the Israeli and the world public had the right to know about the information he passed over”.⁴⁵¹ Barnaby had the impression that Vanunu was not against the Israeli bomb in principle, that he approved of Israel possessing a couple of warheads for self-defense, but rather that Vanunu thought that the program had gone out of control. However, in an April 2017

⁴⁴⁸ Quoted in ‘Mossad Muled Killing Vanunu’, *Ha’aretz*, 06 February 2004. Available at: <https://www.haaretz.com/1.4709074>. Last accessed: December 28, 2018.

⁴⁴⁹ Walters, ‘*Parrhēsia* Today’, p. 286.

⁴⁵⁰ *Ibid.*, p. 279.

⁴⁵¹ Barnaby, ‘Expert Opinion in the Matter of Mordechai Vanunu’, p. 3.

discussion in Jerusalem, Vanunu explained to me that he acted as he did because he opposed every single nuclear bomb in Israel's arsenal. Vanunu described to me the gradual process by which he became convinced, over his years working at the NNRC, that Israel's nuclear weapons constituted a source of potential security risks for Israel and the wider Middle East. The Israeli bomb, Vanunu contended, is pushing other countries in the region to develop similar arms despite Israel's policy of nuclear ambiguity. "I acted because I wanted to prevent a nuclear holocaust in the Middle East", Vanunu said.⁴⁵² Vanunu was also concerned about the safety of the Dimona reactor, fearing that a strong earthquake in the region may crack the reactor, causing radioactive leakage that would result in the death of millions in Israel and neighboring Jordan.⁴⁵³ Thus, Vanunu decided to speak out because he opposed both the Israeli bomb and its supporting infrastructure. He hoped that his revelations would generate concern among Israelis regarding Israel's nuclear weapons program and lead to public discussion about the necessity of such a program in Israel.⁴⁵⁴

Duty. In *parrhēsia*, telling the truth is regarded as duty. The parrhesiast is free to remain silent, but decides to risk his or her life because s/he recognizes truth-telling as a duty to improve or help other people. In a 2015 interview with Israel's Channel 2, Vanunu said that he felt that he had the duty to reveal "to the citizens of Israel and the Middle East and the world" the nature of "the powder keg" at Dimona: "I thought it was the right of the people to know... I, Mordechai Vanunu,

⁴⁵² Conversation with Mordechai Vanunu, former nuclear technician at the Negev Nuclear Research Center (NNRC), 05 April 2017. Please note that this was not a formal interview. I met Mr. Vanunu randomly in a coffee shop in Jerusalem where we had a short conversation about, amongst other things, the nuclear topic. See also 'Vanunu: Israel's Nukes Push Neighbors to Get Atomic Weapons', *Ha'aretz*, 06 December 2004. Available at: <https://www.haaretz.com/1.4779583>. Last accessed: December 28, 2018.

⁴⁵³ Stern, Y. 'Vanunu Tells Al Hayat: Dimona Reactor Endangers Millions', *Ha'aretz*, 25 July 2004. Available at: <https://www.haaretz.com/1.4766355>. Last accessed: December 28, 2018.

⁴⁵⁴ Cohen, Y. *Whistleblowers and the Bomb: Vanunu, Israel and Nuclear Secrecy* (London: Pluto Press, 2005), pp. 243-45.

took the responsibility to inform the citizens of the nuclear danger”.⁴⁵⁵ In another interview in 2004, Vanunu contended that “there was nobody else in all the world or in Dimona who could come out of Dimona with photos and knowledge and be ready to speak. It had become my responsibility, my own mission”.⁴⁵⁶

5.1.2 The impact of Vanunu’s Revelations on Israel’s Nuclear Ambiguity Policy

On 5 October 1986, five days after Vanunu’s abduction, the *Sunday Times* published a detailed feature article on Israel’s nuclear weapons program entitled ‘Revealed: the secrets of Israel’s nuclear arsenal’ (See Figure 5.5). The article contained most of Vanunu’s information regarding the production of sensitive materials at the NNRC, some of his photographs, as well as the expert opinions of Barnaby and Taylor. However, before discussing the impact of Vanunu’s revelations on the Israeli public (Vanunu’s main target audience), I would like to briefly examine how the Vanunu Affair affected Israel’s nuclear ambiguity policy. The general view within the literature is that, as Avner Cohen and Marvin Miller put it, “Vanunu’s revelations have changed everything”. “[I]t is no longer logically possible”, Cohen and Miller argue, “to maintain that Israel does not have nuclear weapons”. “For this reason”, they contend, “the entire discourse of ambiguity... has become obsolete”.⁴⁵⁷ In the following, I want to challenge this view and put forth an alternative interpretation of the Vanunu Affair.

⁴⁵⁵ Quoted in Horovitz, D. ‘Israel lets Mordechai Vanunu discuss its nuclear program on primetime TV’, *The Times of Israel*, 04 September 2015. Available at: <https://www.timesofisrael.com/israel-lets-mordechai-vanunu-detail-its-nuclear-program-on-primetime-tv/>. Last accessed: December 28, 2018.

⁴⁵⁶ Quoted in Cohen, *Whistleblowers and the Bomb*, p. 4.

⁴⁵⁷ Cohen, A. & Miller, M. ‘Facing the Unavoidable: Israel’s Nuclear Monopoly Revisited’, *Journal of Strategic Studies*, vol. 13, no. 3 (1990), p. 64 & 65. For a similar interpretation of the Vanunu Affair, see Cohen, Y. ‘Vanunu, *The Sunday Times*, and the Dimona question’.

Figure 5.5 Front page of *The Sunday Times* (05 October 1986)⁴⁵⁸

THE SUNDAY TIMES

Revealed: the secrets of Israel's nuclear arsenal

INSIGHT

THE SECRETS of a subterranean factory engaged in the manufacture of Israeli nuclear weapons have been uncovered by *The Sunday Times* Insight team.

Hidden beneath the Negev desert, the factory has been producing atomic warheads for the last 20 years. Now it has almost certainly begun manufacturing thermonuclear weapons, with yields big enough to destroy entire cities.

Information about Israel's capacity to manufacture the bomb comes from the testimony of Mordechai Vanunu, a 31-year-old Israeli who worked as a nuclear technician for nearly 10 years in Machon 2 — a top secret, underground bunker built to provide the vital components necessary for weapons production at Dimona, the Israeli nuclear research establishment.

Vanunu's evidence has surprised nuclear weapons experts who were approached by Insight to verify its accuracy because it shows that Israel does not just have the atom bomb — which has long been suspected — but that it has become a major nuclear power.

Vanunu's testimony and more than 60 photographs he secretly took inside have been scrutinised by nuclear experts on both sides of the Atlantic. They show that Israel has developed the sophisticated and highly classified techniques needed to build up a formidable nuclear arsenal. They confirm that, in the past six years, Israel has added further equipment to make



Above ground: the reactor that produces plutonium



Below ground: the nerve centre of the bomb factory

Pictured for the first time in detail: Israel's nuclear bomb plant is built deep beneath the Negev desert and has been secretly operating for more than 20 years

beneath an innocuous, little used building.

● The plant is equipped with French plutonium extracting technology, which transferred Dimona from a civilian research establishment to a bomb production facility. Plutonium production rates amount to 40 kilograms a year, enough to build 10 bombs. In the past six years, Israel has added further equipment to make

have been assembled — 10 times the previously estimated strength of Israel's nuclear arsenal.

The scientists include Theodore Taylor, one of the world's most experienced nuclear weapons experts. He was taught by Robert Oppenheimer, the father of the atomic bomb, and worked on America's first bomb design. He later went on to head the Postage's atomic weapons

testimony was entirely consistent with an Israeli capacity to produce 10 nuclear weapons a year that are significantly smaller, lighter and more efficient than the first types of weapons developed by Russia, America, Britain, France or China.

Another scientist who authenticated the evidence uncovered by Insight is Dr Frank Barnaby, a nuclear

the flow rates through the plant which he quotes exactly confirm the quantities of plutonium that were being made.

Vanunu says that, despite tight security, he was able to smuggle a camera into Machon 2. Insight debriefed him for four weeks and invited Barnaby to interview Vanunu in an attempt to find scientific flaws in his story.

“His testimony is totally

though never proved, that when Israel was in danger of losing the Yom Kippur War in 1973 after the initial Egyptian attack, the then prime minister, Golda Meir, ordered nuclear devices to be moved to air bases.

Last Thursday, a senior US government source at the time, now retired, confirmed the incident to *The Sunday Times*.

Atomic Energy Commission in Dimona. He was made redundant last November with 180 other Dimona workers during a cost-cutting drive by the establishment. Security men had grown concerned about Vanunu's developing political contacts with West Bank Arab students during a part-time philosophy degree course he was taking at Bar-Ilan University.

Inside Dimona: full story pages 4 & 5

When it comes to national security, there are two types of secrets. One is the strict military secret known only to a handful of high-ranking government and security officials. A good example of such a secret is Israel's nuclear weapons program in the late 1950s, which was then known only to David Ben-Gurion and a handful of his closest advisors. The second secret is what anthropologists and cultural scholars call the 'public secret'.⁴⁵⁹ These are known to the public but denied (or refused to be confirmed) by the government. The Israeli bomb is a case in point. Since the mid-1970s, everyone inside and outside of Israel knows or suspects that Israel possesses the

⁴⁵⁸ Source: Sunday Times Digital Archive: <http://gdc.gale.com/products/sunday-times-digital-archive-1822-2006-the/>. Last accessed: February 12, 2017. Edited by Ali Diskaya.

⁴⁵⁹ See Bratich, J. 'Public Secrecy and Immanent Security: A Strategic Analysis', *Cultural Studies*, vol. 20, no. 4-5 (2006), pp. 493-511; Horn, E. 'Logics of Political Secrecy', *Theory, Culture & Society*, vol. 28, no. 7-8 (2011), pp. 103-22; and Taussig, M. *Defacement: Public Secrecy and the Labor of the Negative* (Stanford, CA: Stanford University Press, 1999).

bomb, but the Israeli government refuses to confirm or deny its existence. In order to strip a public secret of its deniability, a whistleblower has to provide convincing evidence that the secret actually exists.⁴⁶⁰ For example, when former U.S. military analyst Daniel Ellsberg gave the *Pentagon Papers* to the *New York Times*, he made it impossible to deny what many Americans already suspected, namely, that the U.S. government had lied about the objective of the Vietnam War and about progress in fighting it. Likewise, when former U.S. Army soldier Bradley Manning gave 250,000 diplomatic cables and 500,000 Army reports to WikiLeaks, he revealed incontrovertibly that U.S. troops in the Middle East were prone to using violence indiscriminately, killing innocent non-combatants, and enjoying the act of killing – something that many Americans had long been suspecting, military propaganda notwithstanding.

Thus, in order to determine whether the Vanunu Affair “changed everything”, we have to ask whether Vanunu’s revelations stripped the Israeli bomb of its deniability. The answer to this question is no. Vanunu provided ample evidence that Israel was producing large amounts of plutonium, lithium-6, and tritium, materials that *could* be used to manufacture nuclear and thermonuclear weapons. However, Vanunu failed to provide any conclusive evidence that Israel had actually produced these weapons. Vanunu, whose work experience was limited to material (not component) production, admitted that he had never seen a completed nuclear or thermonuclear warhead.⁴⁶¹ Thus, unlike Ellsberg and Manning, Vanunu failed to resolve the ambiguity of Israel’s public nuclear secret. This meant that Israel could, and in fact did, continue with its nuclear ambiguity policy as if nothing had happened.

⁴⁶⁰ See Gusterson H. ‘Not all secrets are alike’, *Bulletin of the Atomic Scientists*, 23 July 2013. Available at: <http://www.thebulletin.org/not-all-secrets-are-alike>. Last accessed: February 21, 2018.

⁴⁶¹ Cohen, *Whistleblowers and the Bomb*, p. vii.

Indeed, no country challenged Israel's ambiguity policy in the aftermath of Vanunu's disclosures.

As Aluf Benn put it:

More than any other person, Mordechai Vanunu managed to pierce the cloud of ambiguity covering Israel's nuclear program. The information he relayed to the *Sunday Times* in 1986 was, and remains, the most detailed description of the Dimona plant... And yet Vanunu completely failed to attain his political objective, assuming his intention was to stir an international outcry that would culminate in demands that Israel shut down its operations in Dimona, and destroy the plant's products.⁴⁶²

The United States, for example, which would have been forced to cut foreign aid to Israel if it were to be established beyond doubt that Israel possessed nukes, downplayed the significance of Vanunu's revelations and continued to act as if Israel was a non-nuclear weapon state.⁴⁶³

But what about Israel's Arab neighbors? Here, Vanunu's revelations had an effect, albeit not the one that Vanunu might have had in mind. According to the Israeli military analyst Reuven Pedatzur, Vanunu's revelations did Israel's defense posture an invaluable service because they "strengthened Israel's deterrent picture on the other side [Arab countries], without us [Israel] having to pay any price in divulging what we have".⁴⁶⁴ According to Pedatzur, "The response one would have expected from the Arab world was one of frenzied outrage. But the response was in fact very low-key". He continues:

Thus, our deterrent image had been greatly strengthened as a result of Vanunu's revelations. It only reinforced what the other side already knew. At the same time, they [the Arabs] avoided raising a great outcry, knowing that if they did so, in Egypt, Syria and other states, the people would have turned to

⁴⁶² Benn, A. 'The Triumph of Ambiguity', *Ha'aretz*, 21 April 2004. Available at: <https://www.haaretz.com/1.4784938>. Last accessed: December 28, 2018.

⁴⁶³ See Moss, N. 'Vanunu, Israel's bombs, and U.S. aid', *Bulletin of the Atomic Scientists*, vol. 44, no. 4 (1988), pp. 7-8.

⁴⁶⁴ Quoted in Burston, B. 'Is Israel Secretly Glad Vanunu Spilled Secrets?', *Ha'aretz*, 21 April 2004. Available at: <https://www.haaretz.com/1.4785090>. Last accessed: December 28, 2018.

their rulers, demanding ‘Why don’t you do something against this?’... [Arab leaders] have reconciled themselves to a nuclear Israel for many years. Thus, absurd as it may sound, Vanunu contributed to state security.⁴⁶⁵

Everyone within Israel’s defense and political establishments who understood strategy and who followed what was going on in the Arab world after Vanunu, Pedatzur claims, was secretly glad that Vanunu spilled Israel’s nuclear secrets.

Indeed, recent research indicates that the Israelis knew early on that Vanunu was disclosing information to the *Sunday Times*, but decided not to interfere. Contrary to the belief that Vanunu’s actions took Israel by surprise, Peter Hounam, the *Sunday Times* reporter who first interviewed Vanunu, told the Israeli newspaper *Davar* (‘Word’) already in 1988, “We know for a fact that Israel’s security services knew that Vanunu was giving us information – already when we were debriefing him in Australia, before he arrived in London. But they did nothing”.⁴⁶⁶ According to Hounam, Vanunu had been under constant surveillance during his time in London; however, the Mossad did neither contact Vanunu, nor did it make any effort to prevent him from giving interviews. “I know for certain that if Motti [Vanunu] had been warned that what he was doing was serious in the eyes of the state”, Hounam argued, “he would have reconsidered and perhaps not have gone ahead”.⁴⁶⁷

Furthermore, in September 1986, as the Vanunu story neared publication, Hounam and his colleagues approached the Israeli Embassy in London with Vanunu’s information, offering it a

⁴⁶⁵ Quoted in Ibid.

⁴⁶⁶ Quoted in Raz, A. ‘Did Israel Blow Up the Vanunu Nuclear Whistleblower Affair to Boost its Deterrence?’, *Ha’aretz*, 30 March 2018. Available at: <https://www.haaretz.com/israel-news/.premium.MAGAZINE-did-israel-rig-the-nuclear-whistleblower-affair-to-boost-deterrence-1.5961997>. Last accessed: December 28, 2018.

⁴⁶⁷ Quoted in Ibid.

chance to rebut the allegations. The Israeli Embassy refused to comment on the story, but confirmed that Vanunu had been employed as a technician at the NNRC. This point raises a number of interesting questions. To begin with, Israeli embassies do not have lists of civil servants, still less of NNRC employees. The only institution in Israel that possesses such lists is the Israel Atomic Energy Commission (IAEC), which is subordinate to the Prime Minister's Office (PMO). According to the Israeli nuclear historian Adam Raz, this means "that someone in the PMO confirmed to the embassy that Vanunu had worked in the Dimona reactor – and on top of that, gave the embassy a green light to convey that information to the newspaper".⁴⁶⁸

But why did the Mossad not try to prevent Vanunu from disclosing information to the *Sunday Times*? Why did the Israeli embassy (i.e. the PMO) confirm Vanunu's identity? Vanunu's lawyer, Avigdor Feldman, later stated during his closed-door trial that:

[T]he [Israeli] state's general behavior does not indicate a deep fear... that this report [the *Sunday Times* article] endangers its security. The Israeli Embassy knew about the report in quite a bit of detail some time before its publication. The state took no significant action to prevent publication when it was possible to prevent it. We maintain [that the state] had, if not a desire for these things to be published, at least some sort of tacit acceptance [of the fact] that, actually, if Mr. Vanunu was going to make it public that the state has 200 nuclear warheads, it's not really terrible for this to be published, not terrible for Israel's enemies to see and tremble.⁴⁶⁹

Indeed, it seems that Feldman's remarks about Israel's interest had a factual basis. The American journalist Louis Toscano revealed in 1990 that when then-Prime Minister Shimon Peres learned about Vanunu, he convinced senior Mossad leaders and cabinet colleagues to let him go ahead and abduct him only *after* he had talked to the *Sunday Times*. Apparently, Peres, who was an ardent

⁴⁶⁸ Ibid.

⁴⁶⁹ Quoted in Ibid.

supporter of a policy of open nuclear deterrence, had been thinking that it might be a good idea to let the Arab world know through Vanunu that Israel not only had ordinary A-bombs, but also highly capable thermonuclear weapons.⁴⁷⁰

“So what did Vanunu do after all?” asked Yechiel Horev, head of MALMAB, at the close of the 2004 Knesset hearings on Vanunu’s imminent release from prison. He went on: “What is the meaning of [nuclear] ambiguity?”. Horev proceeded to answer his question with a metaphor:

If you overfill a glass with water, and the water overflows, and the ambiguity disappears, there are positions and views, according to which we might face very severe sanctions. Among other things, it is possible that all sorts of actions will be taken against us, and there will be direct damage to security. Before Vanunu, the water in the glass was low, now only a drop or two are missing for the water to overflow, and we will face sanctions. That is what Vanunu did.⁴⁷¹

Thus, to stay with Horev’s metaphor, Vanunu’s revelations that the Dimona complex was producing large amounts of plutonium, lithium-6, and tritium increased the level of water in Israel’s glass of ambiguity. The heightened water level gave Israel’s nuclear deterrence greater credibility and made it more effective in dissuading states in the region from waging war against Israel. At the same time, however, Vanunu’s disclosures did not overfill the glass (ambiguity did not spill over into certainty) as he failed to prove that Israel had actually produced nuclear or thermonuclear weapons. This enabled Israel to carry on with its ambiguity policy, neither confirming nor denying whether it had nukes. Thus, the view that “it is no longer logically possible to maintain that Israel does not have nuclear weapons” is misguided. So, too, is the claim that “the entire discourse of ambiguity has become obsolete”. Obsolete for whom? Certainly not for Israel;

⁴⁷⁰ See Toscano, *Triple Cross*, pp. 101-10.

⁴⁷¹ Quoted in Ellsberg, D. ‘Vanunu’s Threat to “Ambiguity” and to Israel’s National Security’, 17 April 2005, np. Available at: <http://www.vanunu.com/uscampaign/20050417ellsberg.html>. Last accessed: December 28, 2018.

nor for the United States, Israel's partner in ambiguity. Nuclear ambiguity allows the United States to support Israel despite the fact that it developed nuclear weapons outside of the Nuclear Non-proliferation Treaty (NPT). If it were to be established beyond doubt (if ambiguity were to spill over into certainty) that Israel was a nuclear-armed state, U.S. leaders would be forced (as per domestic U.S. law) to cut foreign military and financial aid to Israel.

5.1.3 The Impact of Vanunu's Revelations in Israel and Abroad

Vanunu's revelations invoked diametrically opposite reactions worldwide.⁴⁷² Outside of Israel, the media portrayed Vanunu as a courageous whistleblower who sacrificed his personal freedom for a higher moral cause.⁴⁷³ The German Nobel literature laureate Günter Grass described Vanunu in a poem as a "role model and hero of our time" who "hoped to serve his country by helping to bring the truth to light".⁴⁷⁴ The global anti-nuclear movement celebrated Vanunu as a hero of global democracy and idolized him as the human embodiment of the opposition to a nuclear-armed world.⁴⁷⁵ During his term of imprisonment, hundreds of leading scientists, technicians, and intellectuals (including many Nobel laureates) signed statements or petitions in Vanunu's support or appeals for his release.⁴⁷⁶ Vanunu was also repeatedly nominated as a candidate for the Nobel Peace Prize.

⁴⁷² See 'Vanunu: traitor or prisoner of conscience?', *The Sydney Morning Herald*, 22 April 2004. Available at: <https://www.smh.com.au/world/middle-east/vanunu-traitor-or-prisoner-of-conscience-20040422-gdis8s.html>. Last accessed: December 28, 2018.

⁴⁷³ See Campbell, D. 'Vanunu: our duty to speak up', *The Guardian*, 02 January 2010. Available at: <https://www.theguardian.com/commentisfree/libertycentral/2010/jan/02/mordechai-vanunu-duty-nuclear-whistleblower>. Last accessed: December 28, 2018.

⁴⁷⁴ Flood, A. 'Günter Grass poem praises nuclear whistleblower Mordechai Vanunu', *The Guardian*, 01 October 2012. Available at: <https://www.theguardian.com/books/2012/oct/01/gunter-grass-poem-praises-mordechai-vanunu>. Last accessed: December 28, 2018.

⁴⁷⁵ Ben-Eliezer, U. & Kemp, A. 'Transnational Social Movements, Civil Society, and a Secret State: The Idea of a Nuclear-free World through Israel's Vanunu Affair', *Social Movement Studies*, vol. 7, no. 2 (2008), p. 158.

⁴⁷⁶ See Farinella, P. & Journe, V. 'Justice for Vanunu', *Bulletin of the Atomic Scientists*, vol. 47, no. 1 (1991), pp. 14-14.

In Israel, however, the situation was very different. The overwhelming majority of Israelis, including most of Vanunu's family, disapproved of Vanunu's actions and considered him as the country's worst traitor. As Aluf Benn put it, "Most of the public loved the leak and hated the leaker: They enthusiastically read his revelations, were happy to hear that Israel had some 200 nuclear weapons, as Vanunu claimed, but also accepted the government's position that presented him as a dangerous traitor".⁴⁷⁷ Like the rest of the Israeli society, Israeli journalists rejected the possibility that Vanunu was ideologically motivated, and described him as a traitor who, as one journalist put it, "endangered the security of Israel at a time when Saddam Hussein's Iraq, Iran's ayatollahs, Libya's Gaddafi and Syria's Assad were making every effort to develop weapons of mass destruction".⁴⁷⁸ Many Israeli news outlets also referred to Vanunu (and continue to do so) as 'nuke spy', even though Vanunu never passed classified nuclear information to any foreign government.⁴⁷⁹ *Yedioth Ahronoth* ('Latest News'), Israel's largest and most widely read newspaper, even blamed Vanunu for delivering information about fabricating a nuclear bomb to Hamas' leadership in prison.⁴⁸⁰ Instead of discussing the content of Vanunu's revelations, Israeli journalists focused on the motivation and personality of Vanunu trying to come up with explanations for why he had betrayed his country. Thus, the window of opportunity that Vanunu might have opened did not lead to a meaningful public discussion about the necessity of a nuclear weapons program in Israel.

⁴⁷⁷ Benn, A. 'Snowden's America, Vanunu's Israel', *Ha'aretz*, 15 July 2013. Available at: <https://www.haaretz.com/opinion/.premium-aluf-benn-snowdens-u-s-vanunus-israel-1.5295567>. Last accessed: December 28, 2018.

⁴⁷⁸ Meotti, G. 'Vanunu, a Western hero', *Ynetnews*, 12 January 2011. Available at: <https://www.ynetnews.com/articles/0,7340,L-4155995,00.html>. Last accessed: January 06, 2019.

⁴⁷⁹ See, for example, Cohen-Friedman, N. 'Nuke spy Vanunu: Revoke my Israeli citizenship', *Ynetnews*, 05 July 2011. Available at: <https://www.ynetnews.com/articles/0,7340,L-4065741,00.html>. Last accessed: January 06, 2019.

⁴⁸⁰ See Harel, Z. 'Vanunu Appears at Court in Case Against Yedioth Ahronoth', *Ha'aretz*, 24 May 2004. Available at: <https://www.haaretz.com/1.4836161>. Last accessed: January 06, 2019.

What explains this reaction? First, we have to keep in mind that by 1986 the Israeli bomb was already a public secret, “that which everybody unofficially knows or suspects, but proof (and therefore knowledge) of which remains elusive”.⁴⁸¹ A poll conducted by Tel Aviv University’s Jaffee Center for Strategic Studies (JCSS) nine months before the publication of Vanunu’s story found that 92 percent of Israelis questioned believed then that Israel possessed nuclear weapons (54 percent were sure that Israel had nukes and 38 percent thought that Israel did but were not certain).⁴⁸² So why did Vanunu think that his revelations would have any effect in Israel if the majority of Israelis already knew that Israel possessed nukes? When Yoel Cohen, an Israeli academic who specializes in mass communication and politics, confronted Vanunu with this question in 2004, the latter replied that:

When I spoke [to the *Sunday Times*], most Israelis may have believed that Israel possessed the Bomb but they did not know for certain. I disclosed that Israel had a larger amount of warheads than earlier estimates – today Israel must have 200 warheads. I revealed exactly what the government was doing. I also disclosed new information about the hydrogen and neutron bombs. Maybe the Israeli public support possession of the simple nuclear bomb, but do not support possessing the hydrogen bomb.

Thus, Vanunu hoped that revealing the exact amount and type of nuclear weapons that Israel was building at Dimona would generate concern among Israelis regarding an Israeli nuclear weapons program that had gone out of control. However, a JCSS poll conducted four months after Vanunu’s revelations found that 78 percent of Israelis questioned supported Israel’s nuclear weapons program and the ambiguity policy that was guarding it.⁴⁸³ Thus, Vanunu’s revelations were

⁴⁸¹ Birchall, C. ‘Aesthetics of the Secret’, *New Formations*, vol. 83 (2014), p. 33.

⁴⁸² Cohen, ‘Vanunu, *The Sunday Times*, and the Dimona question’, p. 428. See also Maoz, Z. ‘The Mixed Blessings of Israel’s Nuclear Policy’, *International Security*, vol. 28, no. 2 (2003), p. 69.

⁴⁸³ Arian, A. *Security Threatened: Surveying Israeli Opinion on War and Peace* (New York: Cambridge University Press, 1995), p. 71.

ineffective because the majority of Israelis (92%) already knew or was suspecting that Israel possessed nukes and because most Israelis (78%) were supporting the Israeli bomb and preferred to keep it shrouded in ambiguity.

In 2004, Yoel Cohen asked Vanunu the following question:

You wanted to change public attitudes, and dismantle Dimona. Do you think that retrospectively you might have played it differently: instead of leaking nuclear secrets to the media to have worked through peace education, to educate about the dangers of Hiroshima and Nagasaki?

Vanunu replied:

After the Israeli public know precisely what is going on inside Dimona, only then can teachers teach against nuclear weapons.⁴⁸⁴

In the following, I examine the case of a small group of Israelis who try to do precisely this: change Israeli attitudes towards the nuclear issue through a long-term campaign that seeks to promote public education in Israel about the dangers of Israel's nuclear weapons program.

5.2 The Israeli Disarmament Movement's Antinuclear Campaign and Its Limits

The Israeli Disarmament Movement (IDM) was established as a Greenpeace project in 2007 and is the first ever Israeli grassroots antinuclear movement. Its main goal is the establishment of a Weapons of Mass Destruction-Free Zone (WMDFZ) in the Middle East. In the following, I analyze the IDM's antinuclear campaign in Israel. The first section examines how the IDM's campaign against the Israeli bomb and its accompanying infrastructure is rationalized and problematized.

⁴⁸⁴ Cohen, *Whistleblowers and the Bomb*, p. 244.

The second section then analyzes which practices, techniques and technologies the IDM employs to steer the Israeli government toward nuclear disarmament. The section focuses, in particular, on the various technologies employed to mobilize a public around the issue of nuclear disarmament.

5.2.1 The Political Rationalities of the IDM's Antinuclear Campaign

In a November 2015 discussion in Tel Aviv, Sharon Dolev, the founder and director of the IDM, explained to me that the movement started as a response to a lack of public conversation about the nuclear issue: “The [Israeli] bomb, the nuclear infrastructure, [and] the ambiguity policy... affect us as a society, but somehow we have learned not to think, talk or ask about these issues”.⁴⁸⁵ Dolev and the IDM oppose each of the items mentioned above and try to change the way the Israeli society thinks about them.

The bomb. Contrary to policy elites, who associate nuclear weapons with the provision of national security through deterrence, members of the IDM believe that Israel's nuclear weapons constitute a source of potential security risks for Israel and the wider region as they might cause a nuclear arms race, and thereby increase the risk of deliberate or accidental nuclear war in the Middle East. “As long as we possess the bomb, it will give other states in the region an incentive to build their own device... This nuclear race will have no winner; at the end, we will all lose”.⁴⁸⁶ For the IDM, the Israeli bomb is also one of the major obstacles towards peace and normalization in the Middle East. This, again, is diametrically opposed to the thinking of the elites in charge of Israel's nuclear program. In a recent article, Ariel Levite, former Principal Deputy Director General for Policy at the Israel Atomic Energy Commission (IAEC), writes that:

⁴⁸⁵ Interview with Sharon Dolev, Director of the Israeli Disarmament Movement (IDM), 23 November 2015.

⁴⁸⁶ Ibid.

...while seeing disarmament (including nuclear disarmament) as a desirable outcome, Israel nevertheless believes that it could and should not be pursued independently. Progress toward nuclear disarmament is clearly seen not only as secondary to attaining other more pressing goals of comprehensive peace and normalization, but is in fact explicitly defined as something that is a byproduct of attaining these goals.⁴⁸⁷

In a parallel fashion, David Danieli, another former IAEC Deputy Director General, contends that “Every country in the region must recognize Israel, sign peace agreements and make security arrangements with it; only then will it be possible to discuss regional nuclear disarmament”.⁴⁸⁸ Thus, for Levite and Danieli, a comprehensive peace must precede any steps toward denuclearization. Those who think otherwise, Levite argues, are “dangerously naïve”.⁴⁸⁹ Dolev is familiar with this argument and calls it the “no peace excuse”. For her, “the lack of peace is not really a serious obstacle to the realization of the vision for a Middle East free of WMD. It is an excuse used by the small group of decision-makers to continue to stall the process [of denuclearizing the Middle East]”. “[P]eace and disarmament”, Dolev contends, “are not dependent on each other; they can take place on parallel tracks, with guarantees from the international community that can provide valuable support. But Israel’s lack of commitment to the process is an obstacle in itself”.⁴⁹⁰

The nuclear infrastructure. While the IDM’s initial motive was solely nuclear weapons disarmament, they also have concerns about accidental, *uncontrollable* disasters that can stem

⁴⁸⁷ Levite, A. E. ‘Global Zero: An Israeli Vision of Realistic Idealism’, *The Washington Quarterly*, vol. 33, no. 2 (2010), p. 160.

⁴⁸⁸ Melman, Y. ‘Israel Is Clinging Dearly to Its Policy of Nuclear Ambiguity’, *Ha’aretz*, 24 November 2011. Available at: <https://www.haaretz.com/1.5212849>. Last accessed: October 12, 2018.

⁴⁸⁹ Levite, ‘Global Zero’, p. 158.

⁴⁹⁰ Dolev, S. ‘A Middle East Free of Weapons of Mass Destruction: Obstacles and Hopes’, *Palestine-Israel Journal of Politics, Economics, and Culture*, vol. 19, no. 12 (2013), np. Available at: <http://www.pij.org/details.php?id=1506>. Last accessed: December 16, 2018.

from Israel's nuclear facilities. Unlike other nuclear-weapon states, Israel has no nuclear power plants and it seems that there are no plans to build such facilities in the near future.⁴⁹¹ Following the severe accidents that occurred at Japan's Fukushima Daiichi Nuclear Power Plant in 2011, Prime Minister Benjamin Netanyahu announced the reconsideration of a plan to set up a nuclear energy facility in the Negev Desert.⁴⁹² A few months later, Dr. Stelian Ghelberg, a member of the steering committee in charge of examining the feasibility of building a nuclear power plant in Israel, stated that "for the next 20-30 years, Israel will not have a nuclear power plant".⁴⁹³ However, Israel operates two 'research' reactors called Israel Research Reactor-1 (IRR-1) and Israel Research Reactor-2 (IRR-2). IRR-1 is a one megawatt 'swimming pool' type reactor which operates at the Soreq Nuclear Research Center (SNRC) at Yavne, south of Tel Aviv. Israel received the reactor in 1955 from the United States under the aegis of the Eisenhower administration's Atoms for Peace Program. IRR-1 is used solely for research purposes (especially in the field of electro-optics), is safeguarded by the International Atomic Energy Agency (IAEA), and is open to the public for group visits and guided tours.⁴⁹⁴ IRR-2 (better known as the Dimona reactor) is a heavy water cooled and moderated, natural uranium-fueled reactor which operates at the Negev Nuclear Research Center (NNRC) near the southern town of Dimona. Although the Israel Atomic Energy Commission (IAEC) claims that "research conducted at the NNRC is designed to broaden the basic knowledge in nuclear sciences and adjacent fields, and to provide the foundation for the

⁴⁹¹ For a brief history of Israel's decades-long failed effort to develop a nuclear power plant, see Rabinowitz, O. 'Nuclear energy and desalination in Israel', *Bulletin of the Atomic Scientists*, vol. 72, no. 1 (2016), pp. 32-38.

⁴⁹² See Rinat, Z. & Ravid, B. 'Netanyahu: Israel 'Rethinking' Nuclear Power Plant in Negev', *Ha'aretz*, 18 March 2011. Available at: <https://www.haaretz.com/1.5138003>. Last accessed: October 12, 2018.

⁴⁹³ Quoted in Barkat, A. 'Israel will not have a nuclear power plant in next 20-30 years', *Globes*, 08 November 2011. Available at: <https://en.globes.co.il/en/article-1000695974>. Last accessed: October 12, 2018.

⁴⁹⁴ See Israel Atomic Energy Commission (IAEC), 'Nuclear Research Center Soreq'. Available at: <http://iaec.gov.il/English/Soreq/Pages/default.aspx>. Last accessed: October 12, 2018.

practical and economic utilization of nuclear energy”,⁴⁹⁵ we know from Vanunu’s revelations that the installation’s true purpose is the production of nuclear materials for use in Israel’s nuclear weapons program. The NNRC also hosts a “national radioactive waste disposal site” for “radioactive waste from hospitals, research institutions, higher education facilities and factories”.⁴⁹⁶ Unlike IRR-1, IRR-2 does neither operate under the inspection regime of the IAEA, nor is it open to the public. Instead, it operates in utmost secrecy far away from the public eye at a remote place somewhere in the Negev Desert (See Figure 5.6).

Figure 5.6 An Aerial Image of the Negev Nuclear Research Center⁴⁹⁷



⁴⁹⁵ Israel Atomic Energy Commission (IAEC), ‘Nuclear Research Center Negev’. Available at: <http://iaec.gov.il/English/NRCN/Pages/default.aspx>. Last accessed: October 12, 2018.

⁴⁹⁶ IAEC, ‘Nuclear Research Center Negev’.

⁴⁹⁷ Source: Al Masdar News: <https://www.almasdarnews.com/article/israel-has-115-nuclear-warheads-read-more-httpwww-haaretz-comisrael-news1-687448/>. Last accessed: October 21, 2018. Edited by Ali Diskaya.

Dolev and the IDM see the SNRC and the NNRC not as high-tech research facilities that support Israel's technological and military power, but rather as environmental hazards that are colonizing the region's future with nuclear waste. The aging Dimona reactor is particularly troublesome for the IDM since it is operating without international supervision. "Without oversight", Dolev argues, "there can be accidents not reported, radiation leaks, problems with the storage of the radioactive waste, and so on".⁴⁹⁸ When asked in 2010 whether he is able to say with certainty that the Dimona plant is safe, former IAEA Deputy Director Danieli responded saying:

Israel's nuclear facilities in Nahal Soreq and Dimona are in good hands. We have a nuclear safety commission that reports directly to the prime minister. We observe all IAEA safety requirements, regulations and instructions. We are members of the IAEA safety committees and we scrupulously uphold all the standards applied by the most advanced countries in the field. We have knowledge and cooperation with other countries on the issue of nuclear safety.⁴⁹⁹

This does not mean, of course, that Dolev's concerns are unfounded. As I have mentioned in the previous chapter, a recent ultrasound examination by a group of IAEA scientists has revealed that the aging aluminum core of the Dimona reactor is plagued by 1,537 defects and flaws.⁵⁰⁰ The Dimona plant is also only about 30 kilometers from the Syrian-African Rift, a well-known earthquake zone. Finally, considering the fact that Israel is geographically small, "a single nuclear accident could, in theory, immediately pollute and affect the entire country or large parts of it,

⁴⁹⁸ Quoted in 'For activist, Israeli taboo about nuclear issues endangers health', *AsiaNews.it*, 26 December 2017. Available at: <http://www.asianews.it/news-en/For-activist.-Israeli-taboo-about-nuclear-issues-endangers-health-41883.html>. Last accessed: December 16, 2018.

⁴⁹⁹ Quoted in Melman, Y. 'Interview / Atomic Energy Official David Danieli: A Nuclear Weapons-free Middle East?', *Ha'aretz*, 28 September 2010. Available at: <https://www.haaretz.com/1.5118508>. Last accessed: October 12, 2018.

⁵⁰⁰ See Levinson, C. 'Israel's Dimona Nuclear Reactor Plagued by 1,537 Defects, Scientists Say', *Ha'aretz*, 26 April 2016. Available at: <https://www.haaretz.com/israel-news/.premium-1.716312>. Last accessed: February 19, 2018.

poisoning underground water sources with radioactive pollution, and contaminating residential and agricultural lands with radioactive fallout”.⁵⁰¹

The nuclear ambiguity policy. Members of the IDM reject the argument that Israel’s policy of nuclear ambiguity managed to weaken motivation for the (further) nuclearization of the Middle East. “Israel’s practice of hiding in the bunker of ambiguity”, Dolev contends, “is perceived as a threat and not as a gesture of non-violence or as an absence of an intended threat”.⁵⁰² According to Dolev, the Israeli bomb is pushing surrounding countries to develop similar arms despite Israel’s reluctance to ‘introduce’ nukes into the Middle East. For the IDM, the only way to prevent a regional nuclear arms race is to establish a WMDFZ in the Middle East.

Accordingly, the IDM demands that Israel gives up its nuclear weapons, joins the NPT as a non-nuclear weapon state (NNWS), and puts both of its nuclear reactors under international supervision by the IAEA.

5.2.2 The Practices, Techniques, and Technologies of the IDM’s Campaign Against the Israeli Bomb

But how can the IDM reach its goals, if it has no direct influence on the actions of those who are empowered to govern the nuclear issue in Israel (the prime minister and, to a certain degree, nuclear and security elites from the IAEC and MALMAB). “Lacking such influence”, Nortje Marres argues, “indirectly affected actors must get organized into a public if they are to address

⁵⁰¹ Rabinowitz, ‘Nuclear energy and desalination in Israel’, p. 35.

⁵⁰² Dolev, S. ‘Creating an Anti-Nuclear Movement in Israel’, *Palestine-Israel Journal of Politics, Economics, and Culture*, vol. 16, no. 34 (2010), np. Available at: <http://www.pij.org/details.php?id=1262>. Last accessed: December 16, 2018.

the problems ensuing from these actions”. By doing so, the indirectly affected actors can “generate... ‘pressure’, which can then be directed at specific instances, to induce shifts in their habits, policies, regulations, commitments”.⁵⁰³ Indeed, this seems to be exactly the strategy that the IDM is pursuing. As Dolev put it:

Without public debate, decision-makers face no pressure and no questions when the decisions are made about the repercussions of those decisions. No one will have to suffer the consequences and be liable before the law, at least not at the public level, because the public — through the media — will not hold anyone accountable.

It is to be hoped that, if Israeli citizens knew about [the dangers of Israel’s nuclear weapons program], and if journalists felt comfortable enough to talk about it, there would be growing pressure on decision-makers, not necessarily pressure to [change nuclear policy], but pressure at least to have a discussion and to provide answers. Such pressure would create an extremely important public discourse, because the lack of discussion enables the repetition of fixed and habitual behavior.⁵⁰⁴

Hence, to generate pressure on decision-makers the IDM seeks to promote public education in Israel about the dangers of Israel’s nuclear weapons program:

[Israelis need to learn not only about] the dangers of nuclear weapons [and] the various possibilities for disarmament... but also about crucial issues such as the dangers of radiation; the need for radiation-monitoring for people living near the reactor, like the residents of the city of Dimona; radioactive waste burial; and the absence in Israel of independent monitoring of proper waste disposal or of radiation levels in the city of Dimona.⁵⁰⁵

However, in the case of Israel, this is better said than done. One of the main obstacles, Dolev argues, is lack of information:

⁵⁰³ Marres, N. ‘Issues Spark a Public into Being, a Key but often Forgotten Point of the Lippmann-Dewey Debate’, in Latour, B. & Weibel, P. (eds.), *Making Things Public: Atmospheres of Democracy* (Cambridge, MA: MIT Press, 2005), p. 213 & 216.

⁵⁰⁴ Dolev, ‘A Middle East Free of Weapons of Mass Destruction’.

⁵⁰⁵ Dolev, ‘Creating an Anti-Nuclear Movement in Israel’.

As social activists, we are used to knowing our subject matter. In fact, when we act on an issue, we typically do so because we feel we understand it, among other reasons. When the subject matter is nuclear, whether civilian or military, any information here is close to non-existent. Material in Hebrew is hard to find, and information in English on the Internet is overwhelming and difficult to sift through for relevance.⁵⁰⁶

In order to bypass this obstacle, Dolev argues, the IDM is “constantly translating information materials on the dangers posed by nuclear weapons and about the alternative paths that we can take. Our translations and publications are printed and handed to politicians, media outlets and shared to the public through the new media”.⁵⁰⁷ However, in our discussion Dolev complained that meetings with journalists have not resulted in a larger number of them following the subject. Indeed, according to Dolev, Israeli journalists refuse to write about the topic of nuclear disarmament. Although by law Israelis are free to discuss anything related to the nuclear issue by quoting foreign sources, Dolev argues, in practice there are still some taboo topics that cannot be discussed in Israel’s nuclear public sphere. One of these taboo topics, Dolev claims, is nuclear disarmament. “There is no discussion about the need for nuclear weapons in Israel, the dangers they present to the region, the various possibilities for disarmament, and so on”.⁵⁰⁸ According to an (anonymous) IDM member, “The Israeli public discussion on disarmament issues is narrowed down to the Iranian issue and framed [in a way] that does not mention the Israeli arsenal or the role Israel should take on the international disarmament efforts”.⁵⁰⁹

⁵⁰⁶ Ibid.

⁵⁰⁷ Ibid.

⁵⁰⁸ Interview with Dolev, 23 November 2015.

⁵⁰⁹ Quoted in Schell, B. ‘Israeli Disarmament Movement Steers Through Nuclear Ambiguity’, *IDN-InDepthNews*, 27 December 2017. Available at: <https://www.indepthnews.net/index.php/armaments/nuclear-weapons/1589-israeli-disarmament-movement-steers-through-nuclear-ambiguity>. Last accessed: December 16, 2018.

Indeed, the mainstream media in Israel even refuse to cover the IDM's campaign against the Israeli bomb. For example, the Israeli media all but ignored the 2017 Nobel Peace Prize ceremony in honor of the International Campaign to Abolish Nuclear Weapons (ICAN), a global coalition of antinuclear non-governmental organizations (NGOs), including the IDM. And those Israeli media outlets who did cover the event, did not mention that the IDM was part of ICAN.⁵¹⁰ To the Israeli human rights activist Yael Marom this came as a surprise considering the fact that “the politicians and the media in Israel so often seek out any Jewish or Israeli connection to Nobel laureates, and celebrate whenever a Jew is recognized by the Nobel committee”.⁵¹¹ For Dolev, however, the media blackout was less surprising. Asked how she would explain the Israeli media's silence on the Nobel Peace Prize ceremony, Dolev suggested to take a step back to before the announcement, when she was participating in a panel discussion at the United Nations entitled ‘A Draft Treaty for a WMD Free Zone in the Middle East: Time to Envisage the Practical’.⁵¹² According to Dolev, this panel discussion, which took place one month before the 2017 Nobel Peace Prize ceremony, was completely ignored by Israeli politicians and journalists. “If I were speaking in the United Nations about human rights violations in the occupied territories”, Dolev said, “I would have been on the front page of the newspapers, and all the ministers would be attacking me”. She continued,

⁵¹⁰ See Galey, P. ‘Anti-nuclear campaign ICAN wins Nobel Peace Prize’, *The Times of Israel*, 06 October 2017. Available at: <https://www.timesofisrael.com/anti-nuclear-campaigners-ican-wins-nobel-peace-prize/>. Last accessed: December 16, 2018; and ‘Nuclear Disarmament Group ICAN Wins 2017 Nobel Peace Prize’, *Ha'aretz*, 06 October 2017. Available at: <https://www.haaretz.com/world-news/nuclear-disarmament-group-ican-wins-2017-nobel-peace-prize-1.5455926>. Last accessed: December 16, 2018.

⁵¹¹ Marom, Y. ‘We will establish a nuclear-free zone in the Middle East’, *+972 Magazine*, 25 December 2017. Available at: <https://972mag.com/we-will-establish-a-nuclear-free-zone-in-the-middle-east-nobel-peace-prize/131901/>. Last accessed: December 16, 2018.

⁵¹² See United Nations Office for Disarmament Affairs (UNODA), ‘A Draft Treaty for a WMD Free Zone in the Middle East: Time to Envisage the Practical’, 12 October 2017. Available at: <https://www.un.org/disarmament/update/wmdfz-in-middle-east/>. Last accessed: December 16, 2018.

But here I am, speaking to the UN General Assembly about the Israeli nuclear program and the ways to disarm it, and no one is criticizing me — no one is calling me a traitor for daring to speak about the issue. The ambiguousness works in all directions. It has always been about ignoring us.⁵¹³

Dolev's assertions and experience is in line with one of the central findings of the previous chapter, namely that nuclear disarmament remains the only topic that is not being discussed in Israel's nuclear public sphere. Indeed, in the course of researching this dissertation, I did not come across a single article in the Israeli media or in academic journals that is discussing the issue of nuclear disarmament in any meaningful way. As I have mentioned in chapter four, the main issue discussed in Israel's nuclear public sphere is nuclear strategy: whether or not Israel should give up its nuclear ambiguity policy and adopt a strategy of open nuclear deterrence instead. Hence, while Israeli journalists and academics, the main protagonists in Israel's nuclear public sphere, seem to disagree on the issue of nuclear ambiguity and try to publicly talk it out, they all seem to (silently) agree on the issue of nuclear disarmament. As a result, the issue of nuclear strategy becomes more and more visible in public discourse, while the issue of nuclear disarmament in general, and the IDM's campaign against the Israeli bomb and its accompanying infrastructure in particular, remain invisible.

As such, the practices of the IDM might be best understood as attempts to form a 'counterpublic':

Counterpublics emerge as a kind of public within a public sphere conceived as a multiplicity. They illuminate the differential power relations among diverse publics of a multiple public sphere. Counterpublics signal that some publics develop not simply as one among a constellation of discursive entities, but as explicitly articulated alternatives to wider publics that exclude the interests of potential participants. Counterpublics in turn reconnect with the communicative flows of a multiple public sphere.⁵¹⁴

⁵¹³ Quoted in Marom, 'We will establish a nuclear-free zone in the Middle East'.

⁵¹⁴ Asen, R. 'Seeking the "Counter" in Counterpublics', *Communication Theory*, vol. 10, no. 4 (2000), p. 425.

According to Jeffrey Wimmer, counterpublics seek to bring their positions—which they feel are being marginalized—into the mass media by means of alternative media (e.g., alternative press, free radio stations, community media) and public actions.⁵¹⁵

Alternative media. However, in Israel even the alternative media seems to be reluctant to cover the IDM's antinuclear campaign. The only alternative Israeli media of which I am aware that is giving a voice to the IDM and other supporters of a WMDFZ in the Middle East⁵¹⁶ is *+972 Magazine*, a blog-based web magazine that is jointly owned by a group of Israeli journalists, bloggers, and photographers who are committed to human rights and freedom of information. Dolev has also published two academic articles about the promises and perils of forming an antinuclear movement in Israel and establishing a WMDFZ in the Middle East in the *Palestine-Israel Journal of Politics, Economics, and Culture*. Additionally, the IDM shares its translations and publications on the dangers of nuclear weapons to the Israeli public through the new media (i.e., the IDM website, Facebook, Twitter, etc.).

Public actions. In order to reach the mainstream media, without which the formation of a counterpublic is not possible, members of the IDM resort to provocative activities such as stripping at a conference in front of Israeli politicians while calling for the Middle East to be stripped of WMD, placing giant notes calling for a nuclear-free world at the Western Wall site in Jerusalem's

⁵¹⁵ Wimmer, J. 'Counterpublic', in Mazzoleni, G. et al. (eds.), *The International Encyclopedia of Political Communication*, Vol. 1 (New York: Wiley-Blackwell, 2016), p. 235.

⁵¹⁶ See, for example, Pillar, P. R. 'The road to nuclear disarmament runs through Israel-Palestine', *+972 Magazine*, 28 June 2018. Available at: <https://972mag.com/the-road-to-regional-nuclear-disarmament-runs-through-israel-palestine/136466/>. Last accessed: December 16, 2018; and Meir, S. 'Working toward a nuclear weapons free Mideast', *+972 Magazine*, 25 May 2016. Available at: <https://972mag.com/working-toward-a-nuclear-weapons-free-mideast/119585/>. Last accessed: December 16, 2018.

Old City (following the religious tradition of inserting notes with prayers or wishes in the wall crevices), or enacting a massive ‘death scene’ in front of the Israeli Ministry of Defense and calling for ‘No More Hiroshima, No More Nagasaki’ (See Figure 5.7).⁵¹⁷

⁵¹⁷ Interview with Dolev, 23 November 2015. See also Dolev, S. ‘Fighting Nukes in Israel is an Uphill Battle’, *The Palestine Chronicle*, 26 March 2013. Available at: <http://www.palestinechronicle.com/fighting-nukes-in-israel-is-an-uphill-battle/>. Last accessed: December 16, 2018.

Figure 5.7 Members of the IDM enacting ‘death scene’ in front of the Israeli Ministry of Defense⁵¹⁸



However, in their campaign against the Israeli bomb and its accompanying infrastructure, the IDM also employs more traditional techniques of protest such as the mass march. Dolev described to me one of her organization’s creative campaigns in 2012, ‘Don’t Bomb. Talk!’, which took to the streets with signs, placards, and banners each time Prime Minister Netanyahu made public pronouncements about Israel taking pre-emptive military action against Iran’s nuclear program (See Figure 5.8). Instead of bombing Iranian nuclear facilities, the campaign called on Netanyahu to join the talks for a Middle East free of WMD as a preventive measure against the Iranian bomb. Thus, like their activist colleagues in other nuclear-armed democracies, members of the IDM protest on Israel’s streets in order to raise attention to their cause and recruit supporters. However, unlike their colleagues in the West, members of the IDM do not only have problems recruiting

⁵¹⁸ Source: IDM Homepage: http://disarmament.org.il/english/?page_id=61. Last accessed: October 16, 2017.

supporters, but they are also constantly being silenced by their fellow citizens the moment they try to raise the nuclear issue in public. “Fear is the foremost enemy of the anti-nuclear struggle in Israel”, Dolev argues.⁵¹⁹ We are treated as traitors and people keep telling us that “just talking about the nuclear issue is a life-threatening blow to state security... The perception is that [we] oppose the state in any case and are, therefore, willing to expose it to existential threats”.⁵²⁰ Indeed, Israel’s nuclear issue falls under a category Michael Taussig calls the ‘public secret’, which he defines as “that which is generally known, but cannot be articulated”.⁵²¹ The public secret (“knowing what not to know”), Taussig argues, is the most powerful form of social knowledge: “Knowing it is essential to its power, equal to the denial. Not being able to say anything is likewise testimony to its power”.⁵²² Everyone in Israel ‘knows’ or suspects that Israel has nuclear weapons. However, Israeli’s do not want to know more about their country’s nuclear weapons program and prefer to keep it opaque. Accordingly, Israelis do not ask about the Israeli bomb and silence anyone who tries to raise the nuclear issue in public.

Figure 5.8 Members of the IDM protesting against plan to bomb Iranian nuclear facilities⁵²³



⁵¹⁹ Dolev, ‘Fighting Nukes in Israel is an Uphill Battle’.

⁵²⁰ Dolev, ‘Creating an Anti-Nuclear Movement in Israel’.

⁵²¹ Taussig, M. *Defacement: Public Secrecy and the Labor of the Negative* (Stanford, CA: Stanford University Press, 1999), p. 5.

⁵²² Taussig, *Defacement*, p. 6.

⁵²³ Source: IDM Homepage: http://disarmament.org.il/english/?page_id=61. Last accessed: October 16, 2017.

In this sense, Israel is not at all like other nuclear-armed democracies, like the United States, the United Kingdom, or France, where people do not only openly and often loudly speak their mind about any range of nuclear issues, but also try to shape the nuclear policies of their respective states by campaigning against them. It is important to note, however, that the Israeli case is not considered to be unique because activists here failed to influence nuclear policy whereas in other nuclear-armed democracies they have been successful. Antinuclear movements in *all* the nuclear-armed democracies ultimately failed to (radically) change the nuclear policies of their respective states. However, these movements managed to recruit an impressive amount of supporters and organized large antinuclear demonstrations and protests with hundreds of thousands of people in attendance. In February 2016, for example, tens of thousands of people assembled in London to protest against the renewal of Britain's Trident nuclear weapon system. The demonstration, which was organized by the Campaign for Disarmament, was Britain's biggest anti-nuclear weapons rally since 1983, when 300,000 gathered in London's Hyde Park to demonstrate against the deployment of U.S. cruise missiles at Greenham Common, Berkshire.⁵²⁴ However, similar attempts by the IDM in Israel have been resisted by the Israeli society.

Hence, the Israeli case is unique because here members of disarmament movements do not only have problems to recruit supporters, but are also constantly being silenced by their fellow citizens in the moment they want to raise the nuclear issue in public. As Dolev put it:

Campaigning against nuclear weapons is a hard job everywhere in the world...What makes it a bit harder in Israel, is that people think we are not supposed to talk about the Israeli bomb. It is not illegal [to talk about the Israeli bomb], but everybody thinks it is... If it would be illegal to talk about nukes, we could simply fight the law, but we don't have to fight a law, we have to fight a belief. And the belief

⁵²⁴ See Townsend, M. 'Trident rally is Britain's biggest anti-nuclear march in a generation', *The Guardian*, 27 February 2016. Available at: <https://www.theguardian.com/world/2016/feb/27/cnd-rally-anti-nuclear-demonstration-trident-london>. Last accessed: December 16, 2018.

is that because of this ‘thing’ that we don’t talk about... we still exist. That’s the common belief. But even stronger than this, is the belief that by not thinking about it, this ‘thing’, not talking about it, not criticizing it, we are keeping Israel safe. How do you campaign against that?⁵²⁵

One way to campaign against this ‘thing’ under ‘that’ circumstances, Dolev argues, is to let others speak for it. In September 2012, for example, the IDM invited a group of four survivors of the Hiroshima A-bomb attack to Israel. The Hiroshima survivors (*Hibakusha*, in Japanese) spoke at several public events where they shared their personal stories from the day of the bombing and life after the bomb. “The *Hibakusha* shared their experience and joined our call for regional talks [on a WMDFZ in the Middle East]”, Dolev said. “We used their visit to educate about the catastrophic humanitarian costs of a limited nuclear war, and joined their call for ‘No More Hiroshima, No More Nagasaki’”.⁵²⁶ The initiative was a success in the sense that Israelis who attended the public events carefully listened to what the *Hibakusha* had to say about the dangers of nuclear weapons and the possibilities for disarmament. Indeed, in this case, it was the “Hiroshima survivors [who] silenced Israelis with their personal tales of the bomb”, as one Israeli newspaper put it.⁵²⁷ The *Hibakusha* did not say anything about nuclear weapons that members of the IDM did not (try to) mention countless times before. The reason why Israelis listened to the *Hibakusha*, and what gave their accounts more credibility, was the fact that they had experienced the catastrophic effects of nuclear warfare. Thus, using the *Hibakusha* as mediator, the IDM was able to educate their target audience about the dangers of nuclear weapons without risking to be silenced.

⁵²⁵ Dolev, S. ‘Sharon Dolev and the Israeli Disarmament Movement’, Panel Discussion at the SOAS University of London, 26 February 2016. Recording available at: <https://www.soas.ac.uk/cisd/events/26feb2016-sharon-dolev-and-the-israeli-disarmament-movement-.html>. Last accessed: December 16, 2018.

⁵²⁶ Dolev, ‘Fighting Nukes in Israel is an Uphill Battle’.

⁵²⁷ Shmulovich, M. ‘Hiroshima survivors silence Israelis with their personal tales of the bomb that “keeps killing”’, *Times of Israel*, 16 September 2012. Available at: <https://www.timesofisrael.com/hiroshima-survivors-silence-israelis-with-personal-tales-of-the-bomb-that-keeps-killing/>. Last accessed: December 16, 2018.

These small successes notwithstanding, the IDM's antinuclear campaign in Israel remains an "uphill battle".⁵²⁸ The participatory norms regulating discourse in Israel's nuclear public sphere (yes to nuke talk, no to anti-nuke talk) continue to restrict discursive engagement and undermine the interests of antinuclear groups such as the IDM. In order to bring their positions into the mass media, members of the IDM resort to public actions like the mass march or more provocative activities such as enacting a death scene in front of the Israeli Ministry of Defense. However, during most of these public actions members of the IDM are silenced by their fellow citizens.

5.3 Conclusion

Over his years working at the Dimona nuclear complex, Vanunu became convinced that Israel's nuclear weapons constituted a source of potential security risks for Israel and the wider Middle East as they might cause a nuclear arms race, and thereby increase the risk of deliberate or accidental nuclear war in the Middle East. Vanunu was also concerned about the safety of the Dimona reactor, fearing that a strong earthquake in the region may crack the reactor, causing radioactive leakage that would result in the death of millions. In 1986, Vanunu decided to leak Israel's nuclear secrets to the London *Sunday Times* in the hope that his revelations would generate concern among Israelis regarding Israel's nuclear weapons program and lead to public discussion about the necessity of such a program in Israel. However, the overwhelming majority of Israelis disapproved of Vanunu's actions and considered him as the country's worst traitor. Like the rest of the Israeli society, Israeli journalists rejected the possibility that Vanunu was ideologically motivated, and described him as a dangerous traitor. Instead of discussing the content of Vanunu's revelations, Israeli journalists focused on the motivation and personality of Vanunu trying to come

⁵²⁸ Dolev, 'Fighting Nukes in Israel is an Uphill Battle'.

up with explanations for why he had betrayed his country. Thus, the window of opportunity that Vanunu might have opened did not lead to a meaningful public discussion about the necessity of a nuclear weapons program in Israel. Public opinion polls conducted before and after the Vanunu Affair show that Vanunu's revelations were ineffective because the majority of Israelis (92%) already knew or was suspecting that Israel possessed nukes and because most Israelis (78%) were supporting the Israeli bomb and preferred to keep it shrouded in ambiguity.

Today, more than 30 years after the Vanunu Affair, the IDM, Israel's first grassroots antinuclear movement, still tries to bring about fundamental change in Israel. Since 2007, the IDM tries to change Israeli attitudes towards the nuclear issue through a long-term campaign that seeks to promote public education in Israel about the dangers of Israel's nuclear weapons program. However, in their campaign against the Israeli bomb, the IDM has to deal with the same problems like Vanunu. The Israeli media refuses to cover the topic of nuclear disarmament in general, and the IDM's campaign against the Israeli bomb and its accompanying infrastructure in particular. In order to bring their positions into the mass media, members of the IDM resort to public actions like the mass march or more provocative activities such as enacting a death scene in front of the Israeli Ministry of Defense. However, during most of these public actions members of the IDM are silenced by their fellow citizens.

CONCLUSION

The main aim of this thesis was to explore how Israel maintains its exceptional nuclear policy both at home and abroad. In chapter two, I have analyzed the workings of the global nuclear nonproliferation regime from an ANT perspective. I have showed that the NWS employed three intersement devices in order to incentivize states to forgo nuclear weapons and join the NPT as NNWS: (1) they offered to assist collaborating states in acquiring civilian nuclear technology and materials; (2) they agreed to pursue nuclear disarmament; and (3) they offered extended nuclear deterrence to close allies that did not possess nukes. When intersement was not enough to ‘convince’ states to enroll in the NPT regime, the regime-builders applied compulsory power in the form of (1) economic sanctions, (2) coercive diplomacy, and (3) military action. This mix of intersement and compulsory power was very successful: 191 states signed the NPT making it the most successful arms control and disarmament agreement ever.

However, Israel is one of three states that has never signed the NPT. In chapter three, I have examined why and how Israel resisted being integrated into the global nuclear nonproliferation regime. The main reason Israel decided in the early 1950s to develop a nuclear weapons program was to increase national security through nuclear deterrence. Israeli leaders were convinced that only the bomb would deter Arab states from efforts to destroy Israel and ensure that no other *Shoah* could ever happen again to the Jewish people. The United States discovered the Dimona construction site already in 1958; however, it refrained from openly confronting Israel over Dimona, and instead adopted a cautious approach, which enabled Israel to complete construction of the basic facilities in Dimona sometime around 1960-61. United States’ nonproliferation policy towards Israel changed radically when John F. Kennedy was sworn into office in January 1961.

Right from the start of his presidency, Kennedy pushed for inspections of the Dimona nuclear complex. The Israelis initially refused to allow inspections of their nuclear facilities; however, when Kennedy threatened to withhold American military and financial support to Israel, the Israelis agreed to inspections by a group of U.S. experts. However, through a range of deception measures Israel managed to continue to work on its nuclear weapons program even in spite of such inspections, and by the time of the Six-Day War, in June 1967, managed to secretly cross the nuclear weapons threshold. Nevertheless, Israel had to publicly announce, one way or the other, that it had acquired nuclear weapons to make them effective deterrents. This is because a nuclear capability so secret that its potential enemies do not suspect its existence loses its value as deterrent. However, publicly declaring that it had acquired nukes, Israel would not only risk a nuclear arms race with its Arab neighbors, but also invite outside interference by the (embryonic) nonproliferation regime (in the form of economic sanctions, loss of U.S. economic and military support, etc.). Israeli policy makers reacted to this communication dilemma by adopting a policy of strategic nuclear ambiguity. On the one hand, they were indirectly hinting at the existence of a nuclear arsenal through a series of leaks and veiled statements, the spread of rumors, and other political actions (e.g., refusal to sign the NPT). However, when directly asked about Israel's nuclear capabilities, Israeli leaders would insist that "Israel will not be the first country to introduce nuclear weapons into the Middle East", which is tantamount to Israel neither confirming nor denying whether it possesses nuclear weapons. Nuclear ambiguity has provided Israel with the best of all possible worlds: the advantages of nuclear deterrence to protect against existential threats in an anarchic world (esp. against its 'hostile' Arab neighbors and a potentially nuclear-armed Iran), but almost none of the potential drawbacks of possessing nuclear weapons, such as economic sanctions from the NPT regime.

However, in chapter four I have showed that Israeli elites in charge of the country's nuclear program were not satisfied with merely official ambiguity on nuclear affairs. They believed that all Israelis, not only government officials, had to be part of the country's nuclear ambiguity policy for it to be effective at the regional and international levels. The real challenge, therefore, was fashioning a national Israeli discourse on nuclear matters that was in line with the country's official nuclear ambiguity policy. Chapter four has shown that Israel's nuclear bureaucracy (IAEC, MALMAB, Censora) is fashioning and upholding the desired national nuclear discourse primarily through control of the Israeli media. To do this, it does not (only) rely on top-down military censorship but (also) on a range of 'governmental technologies' through which it seeks to coopt the Israeli media and 'responsibilize' journalists.

Chapter five has examined two rare cases of resistance against the Israeli bomb and the ambiguity policy that is guarding it. The first part of the chapter analyzed the case of Mordechai Vanunu, a former Dimona worker who in 1986 revealed details of Israel's nuclear weapons program to the London Sunday Times. Vanunu hoped that his revelations would generate concern among Israelis regarding Israel's nuclear weapons program and lead to public discussion about the necessity of such a program in Israel. However, the overwhelming majority of Israelis disapproved of Vanunu's actions and considered him as the country's worst traitor. Like the rest of the Israeli society, Israeli journalists rejected the possibility that Vanunu was ideologically motivated, and described him as a dangerous traitor. Instead of discussing the content of Vanunu's revelations, Israeli journalists focused on the motivation and personality of Vanunu trying to come up with explanations for why he had betrayed his country. Thus, the window of opportunity that Vanunu might have opened did

not lead to a meaningful public discussion about the necessity of a nuclear weapons program in Israel. Public opinion polls conducted before and after the Vanunu Affair show that Vanunu's revelations were ineffective because the majority of Israelis (92%) already knew or was suspecting that Israel possessed nukes and because most Israelis (78%) were supporting the Israeli bomb and preferred to keep it shrouded in ambiguity.

Today, more than 30 years after the Vanunu Affair, the IDM, Israel's first grassroots antinuclear movement, still tries to bring about fundamental change in Israel. Since 2007, the IDM tries to change Israeli attitudes towards the nuclear issue through a long-term campaign that seeks to promote public education in Israel about the dangers of Israel's nuclear weapons program. However, in their campaign against the Israeli bomb, the IDM has to deal with the same problems like Vanunu. The Israeli media refuses to cover the IDM's campaign against the Israeli bomb and its accompanying infrastructure. In order to bring their positions into the mass media, members of the IDM resort to public actions like the mass march or more provocative activities such as enacting a death scene in front of the Israeli Ministry of Defense. However, during most of these public actions members of the IDM are silenced by their fellow citizens.

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Interviews

- Conversation with Mordechai Vanunu, former nuclear technician at the Negev Nuclear Research Center (NNRC), 05 April 2017. Please note that this was not a formal interview. I met Mr. Vanunu randomly in a coffee shop in Jerusalem where we had a short conversation about, amongst other things, the nuclear topic.
- Interview with Adam Raz, nuclear historian, 04 January 2016.
- Interview with Aluf Benn, Editor-in-Chief of *Ha'aretz* newspaper, 30 November 2015.
- Interview with Ariel Levite, former Principal Deputy Director General for Policy at the Israel Atomic Energy Commission (IAEC), 20 December 2015.
- Interview with Sharon Dolev, Director of the Israeli Disarmament Movement (IDM), 23 November 2015.
- Interview with Yossi Melman, senior security and intelligence analyst for *The Jerusalem Post*, 10 December 2015.