2 Leaders' national identity conceptions and nuclear choices

In Chapter 1, I questioned why the nuclear proliferation literature generally takes state demand for nuclear weapons as practically a given, when in fact the acquisition of the bomb represents a leap in the dark on many dimensions. I argued that rather than asking, "Why are there so few nuclear weapons states?" we instead need to ask, "Why are there any at all?" But this is hardly a rhetorical question. Some leaders have indeed decided to endow their states with the bomb. What is more, in spite of the immense difficulties of making a clear cost-benefit calculation on this matter, leaders have often displayed breathtaking certitude in the rightness of their choices. How could this be? This chapter provides a detailed account of how, as indicated in Chapter 1, leaders' conceptions of their nation's identity (what I will call their "national identity conceptions" or NICs) drive their choices for or against the bomb. Most leaders' NICs do not lend themselves to embarking on such a perilous adventure. But others' NICs do produce a preference - and indeed, an emotional need - to reach for that instrument of unlimited destruction.

The chapter is organized as follows. The second part establishes the plausibility of the idea that "big decisions" such as the choice to go nuclear are likely to stem from leaders' NICs. The third part develops a more precise description of the NIC concept and lays out a typology of NICs. The fourth part first discusses the general process of NIC-driven decisionmaking, then identifies the emotional correlates of each NIC type and the behavioral consequences of those emotions, and finally connects these broad considerations to the particular case of nuclear decisions. The last part reviews some of the potential alternative hypotheses that were mentioned in the Introduction, explains the selection of country cases, and then places the specific question of this study in the context of the overall phenomenon of nuclear proliferation.

The decision to go nuclear: a big decision

The decision to acquire nuclear weapons is a big decision. This is to state the obvious – but it has some non-obvious ramifications. In particular, political scientists from various theoretical vantage points have found that big decisions are likely to stem from something other than a straightforward material cost–benefit calculation. Adopting a rational choice perspective, Dennis Chong argues that when relevant information is highly contradictory or unavailable, and a decisionmaker cannot simply wait for sufficient clarifying information to flow in – conditions that certainly apply to the case of nuclear proliferation – the resulting decisions will stem primarily from what Chong calls "dispositional" factors, such as the decisionmaker's core values. Meanwhile, drawing on cognitive psychology, the "operational code" literature comes to a very similar conclusion. Ole Holsti lays out five "decisional settings" in which what he labels a decisionmaker's basic "beliefs" have been found to have the greatest direct impact on policy:

- 1. Situations that contain highly ambiguous components and are thus open to a variety of interpretations.
- 2. Non-routine situations that require more than the application of standard operating procedures and decision rules.
- 3. Situations that require decisions at the pinnacle of the government hierarchy by leaders who are relatively free from organizational and other constraints.
- 4. Responses to events that are unanticipated or contain an element of surprise.
- 5. Long-range policy planning, a task that inherently involves considerable uncertainty.²

The typical context of decisions to build nuclear weapons reflects at least *four* of the above "decisional settings" (the sometime exception being point number 4).

¹ Dennis Chong, Rational Lives: Norms and Values in Politics and Society (Chicago: University of Chicago Press, 2000). The rational choice theorist George Tsebelis has also noted that "actions taken in noniterative situations by individual decision makers (such as in crisis situations) are not necessarily well-suited for rational choice predictions." George Tsebelis, Nested Games: Rational Choice in Comparative Politics (Berkeley: University of California Press, 1990), p. 38, cited in Roger Petersen, Understanding Ethnic Violence: Fear, Hatred, and Resentment in Twentieth-Century Eastern Europe (Cambridge: Cambridge University Press, 2002), p. 34.

Ole Holsti, "Foreign Policy Formation Viewed Cognitively," in Robert Axelrod, ed., Structure of Decision (Princeton: Princeton University Press, 1976, pp. 18–54). See also Alexander L. George, "The Causal Nexus between Cognitive Beliefs and Decision-Making Behavior: the 'Operational Code' Belief System," in Lawrence S. Falkowski, ed., Psychological Models in International Politics (Boulder, CO: Westview Press, 1979, pp. 95–124).

In short, the decision to acquire the bomb is almost an ideal-typical example of a big decision, one which – if it is taken at all – will be based in what Chong calls "dispositional factors" or what Holsti calls the "beliefs" of the decisionmaker. The precise dispositional factors/beliefs that are relevant to a particular big decision may differ according to the arena in which the decision is located. In the case of the decision to go nuclear, a decision clearly located in the arena of high international politics, the relevant factors are to be found in the leader's national identity conception (NIC).³

The national identity conception (NIC): definition and types

The concept of the "national identity conception"

As previously stated, the key independent variable in my causal argument about decisions to go nuclear is the leader's national identity conception, or NIC. The precise nature of the leader's NIC will largely determine whether or not he or she will favor the state's acquisition of nuclear weapons. What is more, the leader's NIC is not only seminal to his or her nuclear preference; it also produces an emotional process of nuclear decisionmaking that stands in stark contrast to the more typical process of cost–benefit calculation. So just what is an NIC? It is an individual's understanding of the nation's identity – his or her sense of what the nation naturally stands for and of how high it naturally stands, in comparison to others in the international arena. The paragraphs that follow elaborate on the key elements of this first-cut definition.

The NIC is an "individual" understanding. Most of the recent literature on nations and nationalism is dedicated to establishing that national identities are social facts, grounded in intersubjective understandings. Since national identities are social-structural phenomena, constructivist applications of the national identity variable to foreign policy choice have rightly tended to focus on how it provides a "logic of appropriateness" that renders certain policy options simply "inconceivable" but

³ Here I am admittedly skimming lightly over some difficult issues regarding metadecisions about what arena a specific decision is perceived to relate to. For a treatment of these issues, see Donald A. Sylvan and James F. Voss, eds., *Problem Representation in Foreign Policy Decision Making* (Cambridge: Cambridge University Press, 1998).

⁴ See Anthony D. Smith, *Theories of Nationalism*, 2nd ed. (New York: Holmes and Meier Publishers, 1983).

leaves others open.⁵ The insight that intersubjectively held national identities can render certain options inconceivable is an important one, but it is also limited. In particular, it does not allow us to use the identity variable to explain the specific policy choices that actually *are* made. To do this for the specific case of nuclear weapons decisions, I argue that we must drop down below the level of national identity as a social fact and instead look at what the leader has adopted as his or her specific interpretation, or "conception," of the national identity. What I am calling NICs are individual, or *subjective*, sets of choices about how to interpret the collective symbols and memories that are common to all in the nation, but often highly multivalenced in their potential meanings and significance.⁶

How do these NICs come about? Intellectuals and identity entrepreneurs are constantly developing new national identity conceptions and marketing them to the rest of society. The future national leader will probably be exposed to various such conceptions as a youth and, over time and for various motivations, will draw on these to develop a subjective conception of the nation's identity. Most often, the leader will simply have chosen from among the mainstream conceptions available in society. But sometimes the leader is in fact less an NIC consumer than an NIC producer. For instance, Chapter 3 discusses the ideas of the first Indian prime minister, Jawaharlal Nehru, whose "Nehruvian" conception about Indian identity remained dominant among the Indian leadership into the 1990s. In the end, precisely how the leader developed his or her NIC is not directly relevant to the primary goal of this book, which is to explain nuclear policy choices. What matters for the purposes of this study is that the leader arrives in power with a stable NIC upon which to draw when facing the big decision of going or not going nuclear.

The NIC is an "identity" conception as opposed to a mere perception of contemporary reality. There is a rich international relations literature on the important behavioral consequences of international perceptions. This literature usefully confronts the standard political science narrative of perfectly rational calculators responding to objective contemporary reality. But even so, the threat perception literature often amounts to a simple tweaking of the standard narrative, replacing rational calculators with

⁵ See Stephen Saideman, "Thinking Theoretically about Identity and Foreign Policy," in Shibley Telhami and Michael Barnett, eds., *Identity and Foreign Policy in the Middle East* (Ithaca, NY: Cornell University Press, 2002), esp. pp. 169–70.

⁶ The importance of the subjective, as opposed to the intersubjective, level of identity is notably explored by in Jane Mansbridge and Aldon Morris, eds., *Oppositional Consciousness: The Subjective Roots of Social Protest* (Chicago: University of Chicago Press, 2001).

⁷ The seminal work is Robert Jervis, *Perception and Misperception in International Politics* (Princeton: Princeton University Press, 1976).

cognitive misers, and perfect information with biased assessment. To explain big decisions where even a semblance of cost-benefit calculation is difficult if not impossible, we need to move beyond mere contemporary perception. As noted above, a leader's national identity conception does move beyond contemporary perception, though it may color such perceptions. It is a sense of what the nation *naturally* stands for and how high it *naturally* stands. The sense of what is natural for the nation allows the leader, even when calculation is difficult or impossible, to choose – as an act of self-expression.

The distinction being drawn here between an identity conception and a mere contemporary perception can be grasped through a consideration of the opening paragraph of Charles de Gaulle's *Mémoires de Guerre*, one of the most famous passages in autobiographical literature. De Gaulle writes: "Instinctively I have the feeling that Providence has created [France] either for complete successes or for exemplary misfortunes. If, in spite of this, mediocrity shows in her acts and deeds, it strikes me as an absurd anomaly, to be imputed to the faults of Frenchmen, not to the genius of the land. . . . In short, to my mind, France cannot be France without greatness." The thought process here is subtle. De Gaulle claims he can certainly see it when France falls short, but this does not affect his "instinctive feeling" about France's true nature. In his inimitable words, France cannot be France without greatness. De Gaulle's NIC, therefore, helps him to set a metric for judging the nation's efforts today and for setting its goals for tomorrow.

The NIC reflects an ongoing process of "self-other comparison." How do we answer the basic questions of identity: what we stand for, and how high we stand? One way of doing so is to adopt a discrete "role" – a behavioral pattern that conforms to the expectations and needs of the overall social system. Applying this notion to the domain of world politics, scholars have defined various "national role conceptions," all of which derive from the nation's perceived function in the international system. Such an outside-in, deductive approach may be how some individuals provide

⁸ Charles de Gaulle, *War Memoirs, Vol. 1: The Call to Honour 1940–1942*, trans. Jonathan Griffin (New York: The Viking Press, 1955), p. 3.

⁹ Ralph Linton, "Status and Role," reprinted in Paul Bohannon and Mark Glazer, eds., High Points in Anthropology, 2nd ed. (New York: McGraw Hill, 1988), pp. 186–198.

¹⁰ K. J. Holsti, "National Role Conceptions in the Study of Foreign Policy," *International Studies Quarterly*, Vol. 14 (1970), pp. 233–309. Note that this outside-in, deductive approach is also how IR scholars have defined many other important concepts on how "ideas" affect foreign policy, concepts such as "strategic culture," "foreign policy belief system," and "operational code." Seminal contributions to this wider literature include Alastair Iain Johnston, "Thinking about Strategic Culture," *International Security*, Vol. 19, No. 4 (Spring 1995), pp. 32–64; Deborah Larson, "The Role of Belief Systems and Schemas in Foreign Policy Making," *Political Psychology*, Vol. 15, No. 1 (1994); and

themselves with answers to the key questions of national identity. But in general, the international relations constructivist literature's tendency to conflate "identity" with "role" needs to be rethought. 11 Many people who develop a conception of national identity do so from the ground up, through a never-ending process of self-comparison that they make between their nation and others. The notion that self-comparison is crucial to identity has become standard in critical social theory, through the notion of "the Other," and in social psychology. ¹² In social psychology, outgroups that serve as the primary basis for ingroup self-definition are termed "key comparison others." It is the identification of similarities and differences (real or imagined) between "us" and "them" that clarifies the sense of who we are. It is important to emphasize that not all external actors are key others for the purpose of self-comparison. The psychological approach's appreciation of the specificity of the key comparison other explains why people can use self-other comparison to provide themselves with very clear answers to the basic questions of identity.

Having established in general what is meant by a "national identity conception" or NIC, we can now proceed to build a typology of specific NICs, because as we shall see, different NICs produce different impulses on the nuclear issue.

Typology of national identity conceptions

The previous section defined the NIC as an individual's understanding of the nation's identity – his or her sense of what the nation naturally stands for and of how high it naturally stands in comparison to others in the international arena. Those two dimensions, "what the nation naturally stands for" and "how high the nation naturally stands," correspond closely to what social psychologists have identified as the two primary

Alexander George, "The 'Operational Code': A Neglected Approach to the Study of Political Leaders and Decision Making," *International Studies Quarterly*, Vol. 13 (June 1969), pp. 190–222. Most works on "enemy images" are in this vein as well, but others come closer to a concept that parallels my notion of "identity." For an excellent example of the latter, see Richard K. Herrmann and Michael P. Fischerkeller, "Beyond the Enemy Image and Spiral Model: Cognitive-Strategic Research After the Cold War," *International Organization*, Vol. 49 (1995), pp. 415–450.

¹¹ For a parallel discussion of this point, see Ted Hopf, *Social Construction of International Politics: Identities and Foreign Policies, Moscow, 1955 and 1999* (Ithaca, NY: Cornell University Press, 2002).

¹² Bertrand Badie and Marc Sadoun, eds., L'autre: Etudes réunies pour Alfred Grosser (Paris: Presses de la fondation des sciences politiques, 1996); Roger Brown, Social Psychology, 2nd ed. (New York: The Free Press, 1985).

¹³ Brown, Social Psychology, esp. p. 576. In my handling of the term, the "key comparison other" need not be another specific nation; it can be a set of other nations, such as the "Communist bloc," and it can even be the set of all other nations, the "foreigners."

dimensions of interpersonal social comparison: the dimension of "solidarity" and the dimension of "status." 14 (They also correspond more loosely to the two classic components of the analysis of foreign policy choice: "intentions" and "capabilities.") What sorts of basic positions along these two dimensions can an NIC exhibit?

The solidarity dimension. The key question for the first or "solidarity" dimension of self-definition is whether "we" and "they" naturally stand for similar or different interests and values. This can be conceived as a horizontal dimension of self-other comparison. Sometimes it is suggested that identity conceptions are necessarily built on black-white "us versus them" dichotomies. But, in fact, as Jane Mansbridge and other contributors to the social movements literature have noted, a division of the world into "us and them" should not be taken to be synonymous with a feeling of "us against them." ¹⁵ Indeed, what Mansbridge terms the "oppositional consciousness" of "us against them" is in fact a relatively rare phenomenon.¹⁶ Social psychologists find that the sense of "us against them" is much less likely to emerge if both we and they are perceived to be nested within wider, "transcendent" identity groupings. Such a perception provides a sense of basic commonality that undercuts the tendency toward stark black-white dichotomization. 17

So, along this first, "solidarity" dimension of national self-definition, I distinguish between "oppositional," or starkly dichotomizing identity

¹⁴ Kenneth D. Locke, "Status and Solidarity in Social Comparison: Agentic and Communal Values and Vertical and Horizontal Directions," Journal of Personality and Social Psychology, Vol. 84, No. 3 (March 2003), pp. 619-631.

¹⁵ Jane Mansbridge, "Complicating Oppositional Consciousness," in Mansbridge and Morris, eds., Oppositional Consciousness, p. 239. See also Joan Cocks, The Oppositional Imagination: Feminism, Critique and Political Theory (London: Routledge, 1989), esp. Introduction, "Things in Two's Are Sometimes, but Not Always, Dichotomies," pp. 1-22. A work of IR that strongly makes this point is Hopf, Social Construction of International Politics, esp. p. 263.

¹⁷ The original insight here was developed in Muzafer Sherif, "Superordinate Goals in the Reduction of Intergroup Conflict," American Journal of Sociology, Vol. 63, No. 4 (1958), pp. 349-356. The specific notion of a "transcendent identity" has been most fully developed by Herbert Kelman; see for instance his "The Interdependence of Israeli and Palestinian Identities: The Role of the Other in Existential Conflicts," Journal of

Social Issues, Vol. 55, No. 3 (1999), pp. 581-600.

¹⁶ Note that in highlighting the notion of "consciousness," Mansbridge is explicitly adopting an *individual* level of analysis – a choice parallel to the one made in this book. In her work, "consciousness" is defined as the "ideas and feelings of an individual," as opposed to "culture" which is defined as "the customs, habits, values, and focal concerns of a social group." While Mansbridge admits that an "oppositional culture" could in theory exist, she finds culture typically too variegated to produce clear signals about how individuals should behave. Therefore, though culture certainly forms the backdrop for consciousness, any explanation for group action must in the end focus – as the volume's subtitle suggests - on its subjective roots. Mansbridge, "Complicating Oppositional Consciousness," esp. pp. 242-243.

conceptions on the one hand, and other identity conceptions that nest the us—them distinction within a broader, transcendent identity conception. This distinction should not be taken to be synonymous with a distinction between a "competitive" or "cooperative" spirit. A competitive spirit vis-à-vis the "other" can still flourish even when the existence of a transcendent identity is recognized. There is an analogy here to team sports, where the competitive spirit exists side by side with the spirit of "sportsmanlike" play. This is why the international Olympic movement, for all its vigorous promotion of fierce competition between national representatives, can legitimately claim to be promoting international comity. To take another example, Liah Greenfeld has analyzed in depth how what one might term sportsmanlike national identities came to compete vigorously, and often mutually beneficially, on the terrain of wealth accumulation. In sum, some leaders hold oppositional NICs, while others hold sportsmanlike NICs.

The status dimension. The key question for the second or "status" dimension of self-definition is how high "we" stand relative to "them" in the international pecking order: are we naturally their equal (if not their superior), or will we simply never measure up? This can be understood as the vertical dimension of self-other comparison, as opposed to the first, horizontal dimension. The vertical dimension of self-other comparison is surprisingly often ignored in IR writing on identity, for instance in the field's many half-baked applications of social psychology's social identity theory. But it is central to other identity scholars' thinking. For instance, Mansbridge notes that oppositional consciousness is not sufficient to produce a predisposition toward conflict with the dominant group. She writes that for idle dreams of toppling the other to turn into concrete action toward that end, oppositional consciousness must also be complemented by a belief in the potential "efficacy" of taking on the other group in a trial of strength. The sense of group efficacy, Mansbridge

¹⁸ As Robert Simon writes, "After all . . . if victory is the primary goal, one need simply schedule vastly inferior opponents." Robert L. Simon, *Fair Play: The Ethics of Sport*, 2nd ed. (Boulder, CO: Westview Press, 2004), p. 53.

¹⁹ Liah Greenfeld, *The Spirit of Capitalism: Nationalism and Economic Growth* (Cambridge, MA: Harvard University Press, 2001). Note that the term "sportsmanlike" is mine, not Greenfeld's.

²⁰ For more on the use and abuse of social identity theory in the international relations discipline, see Jacques E. C. Hymans, "Applying Social Identity Theory to the Study of International Politics: A Caution and an Agenda," paper presented to the International Studies Association conference, New Orleans, Louisiana, March 2002.

Mansbridge, "Complicating Oppositional Consciousness," p. 241. The psychological literature on self-efficacy makes many quite parallel points – and indeed it served as my initial inspiration. But in that literature self-efficacy feelings are thought to vary widely depending on the particular task at hand, whereas here we are emphasizing overall efficacy

writes, comes not only from a perception of contemporary openings in the political opportunity structure, but more profoundly from a sense of group "history" – which is inextricable from its identity.²²

I define an NIC that gives rise to a sense of international "efficacy" – the sense that the nation can hold its head high in dealings with its key comparison other(s) – as a "nationalist" NIC. 23 Some readers may find this assertion surprising: are not all national leaders "nationalist" by definition? Not if we accept the definition of nationalism offered by the Routledge Dictionary of Politics: "the political belief that some group of people represents a natural community which should live under one political system, be independent of others and, often, has the right to demand equal standing in the world order with others."24 Those who would treat all national leaders as "nationalists," particularly with respect to foreign policy, are ignoring or denying the last part of the definition – the right to equal standing.²⁵ For in fact, not all national leaders are convinced that their nations could or even should hold equal status with their key comparison others. One of the primary contributions of postcolonial studies is the notion of the "subaltern," whose basic meaning can be grasped through a consideration of its etymology: sub + alter, "below + other." Most work in "subaltern studies" has been dedicated to giving voice to the speechless and powerless on the bottom of the social scale, but some scholars have usefully tweaked this concept to identify a class of "subaltern states" in the international system. Such states are not voiceless as

feelings. See Albert Bandura, "Exercise of Personal Agency Through the Self-Efficacy Mechanism," in Ralf Schwarzer, ed., *Self-Efficacy: Thought Control of Action* (Washington, DC: Hemisphere Publishing Corp., 1992), pp. 3–38.

Mansbridge, "Complicating Oppositional Consciousness," p. 241. Mansbridge's notions of "oppositional consciousness" and "efficacy" resemble Donald Horowitz's basic typology of interethnic competition, which places, on one axis, the degree of perceived identity conflict (akin to "opposition"), and on the other axis, the degree of perceived stability of rank ordering (akin to "efficacy"). Donald Horowitz, Ethnic Groups in Conflict (Berkeley: University of California Press, 1985).

²³ As Benedict Anderson has commented, the term "nationalism" should not be confused with "xenophobia," even though the two sometimes go together (Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationlism*, London: Verso, 1991). The distinction between the two is made even clearer when one considers the model presented in this chapter. Nationalism is to be found along the dimension of status, while xenophobia (a rough parallel to what I am calling oppositional NICs) is to be found along the dimension of solidarity.

²⁴ David Robertson, *The Routledge Dictionary of Politics* (London: Routledge, 2003), p. 331. Anthony Smith seconds this definition, writing that nationalism properly understood promotes not only affection for one's national community, but also *ambition* for it. Smith,

Theories of Nationalism, pp. 169-174.

The relative downplaying of the international dimension of the definition of nationalism is even evident in the small international relations literature on the subject; see for instance Stephen Van Evera, "Hypotheses on Nationalism and War," *International Security*, Vol. 18, No. 4 (Spring 1994), pp. 5–39.

	Solidarity dimension		
Status dimension	Us and them (nested in transcendent identity)	Us against them (black–white dichotomy)	
We are naturally their equals, if not their superiors	Sportsmanlike nationalist	Oppositional nationalist	
We are naturally below them	Sportsmanlike subaltern	Oppositional subaltern	

Table 2.1 Four ideal-typical national identity conceptions (NICs)

subaltern members of domestic society are, but they know their place all the same. Indeed, subaltern state leaders, while enjoying the trappings of independent statehood, typically still express a negative national self-image that in many cases is an internalization of the image ascribed to their nation by the dominant powers.²⁶ In short, some national leaders hold nationalist NICs, while others hold subaltern NICs.

Crossing the two dimensions We have now covered the two primary dimensions of national self-definition. By crossing them, we can identify four ideal-typical NICs: oppositional nationalist; sportsmanlike nationalist; oppositional subaltern; and sportsmanlike subaltern. Table 2.1 shows how these four ideal-typical NICs stand in relation to each other. As the case studies will show, all four of these NIC types can actually exist in the real world. It is wrong to think that an identity conception that is nationalist, or that is subaltern, must also be oppositional.²⁷

From NICs to nuclear decisions

The generic pathway from NICs to choice

Each of the four ideal-typical NICs produces distinct cognitive and emotional effects, which in turn generate particular action tendencies on the nuclear issue. But before we can look at the specific impacts of certain

²⁶ See, for instance, Fernando Coronil, "Listening to the Subaltern: Postcolonial Studies and the Poetics of Neocolonial States," in Laura Chrisman and Benita Parry, eds., Postcolonial Theory and Criticism (Cambridge: D. S. Brewer, 2000), pp. 37–55. For an earlier identification of the same basic phenomenon without the jargon, see Albert O. Hirschman, A Bias for Hope: Essays on Development and Latin America (Boulder, CO: Westview Press, 1985).

²⁷ See the deconstruction of the "subalterns are necessarily oppositional" assumption in Bob Hodge and Vijay Mishra, *Dark Side of the Dream: Australian Literature and the Post-colonial Mind* (Sydney: Allen and Unwin, 1991).

NICs, we must first tackle the broader question of how NICs in general can impact foreign policy choice, for the model of identity-driven decisionmaking developed in this book differs from other models. As previously noted, the tendency in other works on identity and foreign policy is to argue that identity takes certain policy options off the table by rendering them "inconceivable." But, drawing on a wide range of literatures on identity, memory, emotions, and choice – from neuroscience to psychology to the humanities – we can make much more robust claims for the power of individual leaders' national identity conceptions as drivers of their biggest foreign policy decisions.

Why should we expect an NIC to drive, as opposed to simply constraining, an individual leader's foreign policy decisionmaking? The first step to appreciating this possibility is to recognize the key contribution of "self-categorization theory" (which subsumes the findings of "social identity theory"): its discovery that individuals contain multiple levels of self.²⁸ In other words, individuals do not always and only proceed on the basis of their personal self-interest, as many recent political science studies assume. Rather, certain environmental contexts will activate different levels of self – e.g., the family level, the professional level, the national level – each of which is just as psychologically real and emotionally central for the individual as any other. This existence of multiple levels of self can explain some of the altruistic behavior that has been documented between parents and children, for instance, or among fellow soldiers on the battlefield. National leaders are likely often to find themselves in situations which will activate their national level of self, and in particular this is likely when they are engaged in significant interactions with the "key comparison others" that are central to national self-definition. In spite of the rampant contemporary cynicism about the motivations of national leaders, there is in fact ample evidence that they are indeed capable of thinking and acting in accordance with their perception of the national interest, which stems in turn from their NIC.²⁹

NICs, when activated, drive choice via the recall of emotional memories. Ernest Renan was the first scholar to identify collective memory as the raw material for national identity.³⁰ As I have defined them here,

²⁸ The seminal text is John C. Turner with Michael A. Hogg, Penelope J. Oakes, Stephen D. Reicher, and Margaret S. Wetherell, Rediscovering the Social Group: A Self-Categorization Theory (Oxford: Basil Blackwell, 1987).

²⁹ Barton Bernstein, "Understanding Decisionmaking, US Foreign Policy, and the Cuban Missile Crisis: A Review Essay," International Security, Vol. 25, No. 1 (Summer 2000), esp. pp. 162. But note that while I am arguing that leaders are capable of thinking and acting in accordance with their NIC, I am not arguing that they always do so. The theory advanced in this chapter is most certainly not a "theory of everything." ³⁰ Ernest Renan, "Qu'est-ce qu'une nation?" reprinted in John Hutchinson and Anthony

D. Smith, Nationalism (New York: Oxford University Press), 1994, pp. 17-29.

national identity conceptions are individuals' particular interpretations of the nation's identity, but these interpretations still rely on the raw material of collective memory, and that raw material is often emotionally very raw indeed. People do not have to have been present to be stirred by tales of national tragedy and triumph, and indeed the emotional impact can be even more powerful when the story is learned than when it has been lived.³¹

We can turn to the literature on the psychology of memory to understand the effects of emotional memories on political choice – a topic to whose importance the political science literature is beginning to reawaken.³² First of all, when the leader perceives the nation to be interacting with the key comparison other that plays a central role in the identity narrative, and especially when those interactions concern core issues of national survival, NIC-linked emotional memories rush back into his or her consciousness. Once they have been recalled, there are two primary pathways via which these emotional memories can impact choice: a cognitive and an emotional pathway. 33 Along the cognitive pathway, NIC-linked emotional memories often warp the processing of new information to keep it in conformity with the individual's (unconscious) desire to maintain a stable identity conception.³⁴ Note that because NIC-linked emotional memories tend to be more salient and sharper than other memories, they are more important in shaping perceptions of the nation's contemporary prospects. Along the emotional pathway,

³¹ See Stephen P. Rosen, War and Human Nature (Princeton: Princeton University Press, 2005), p. 52. See also Claude Digeon, La crise allemande de la pensée française 1870–1914 (Paris: Presses Universitaires de France, 1959) which carefully demonstrates the increasing emotional impact of the war of 1870 on succeeding generations of French intellectual elites, an impact that was felt most of all by a generation that had hardly even been alive when the war occurred.

See, for instance, Donald L. Horowitz, The Deadly Ethnic Riot (Berkeley: University of California Press, 2001); Roger D. Petersen, Understanding Ethnic Violence: Fear, Hatred, and Resentment in Twentieth-Century Eastern Europe (Cambridge: Cambridge University Press, 2002); Neta C. Crawford, "The Passion of World Politics: Propositions on Emotion and Emotional Relationships," International Security, Vol. 24, No. 4 (Spring 2000), pp. 116–156. Earlier works that considered emotions in the context of international politics include David A. Welch, Justice and the Genesis of War (Cambridge: Cambridge University Press, 1993), Ralph K. White, ed., Psychology and the Prevention of Nuclear War: A Book of Readings (New York: NYU Press, 1986), and Richard Ned Lebow, Between Peace and War: The Nature of International Crisis (Baltimore, MD: Johns Hopkins University Press, 1981).

³³ Though these two pathways can be held analytically distinct, in practice they are both occurring at the same time in the same brain, and each can have important reciprocal effects on the other. See Daniel L. Schacter, Searching for Memory: The Brain, the Mind, and the Past (New York: Basic Books, 1996).

³⁴ For more on this phenomenon of "motivated bias," see Richard K. Herrmann, *Perceptions and Behavior in Soviet Foreign Policy* (Pittsburgh: University of Pittsburgh Press, 1985).

one of the more significant findings of the recent neuroscientific literature on the brain is that the recall of emotional memories is accompanied by the *reactivation of past emotions*. In other words, it is not only more likely that an emotional memory will be recalled than other memories; it is also typical that when the memory returns, so too does the emotion. For instance, recalling the memory of a fearful event reignites the original feeling of fear, often with little or no decay over time.³⁵ Emotions can affect not only how people understand a situation, but also what they want to get out of the situation in the first place, as well as their willingness to act in pursuit of those desires without much prior calculation.³⁶ Given the above-noted basic unpredictability of the effects of nuclear weapons acquisition, it makes sense that this emotional pathway should loom especially large in the explanatory theory of this book.

Note that because the emotions we are referring to are rooted in the NIC they have a stable source, and therefore the model here avoids some of the typical problems with using emotions to predict political choice – namely their presumed unpredictability and short duration. We all experience many stray emotions and memories throughout each day, but it is the persistence and recurrence of NIC-linked emotional memories that makes them particularly relevant to understanding decisionmaking.³⁷ Indeed, this scientific discovery of the reactivation of past emotions may hold the key to unlocking the puzzle of the special intensity of much intergroup conflict.

In conclusion, when the leader perceives the nation to be interacting with a key comparison other over something significant, a set of NIC-linked emotional memories will flood back into the leader's mind, producing new emotions and cognitions that in turn generate a certain action tendency. The next logical step, therefore, is to determine the emotional correlates of specific types of NICs, and what these mean for choice.

NIC-linked emotions and their behavioral tendencies

We can now specify the emotional correlates of the four ideal-typical NICs and the effects they have on choice. The basic claims made here are that fear is the emotional correlate of both types of oppositional NICs and that pride is the emotional correlate of both types of nationalist NICs.

³⁵ Joseph LeDoux, The Emotional Brain: The Mysterious Underpinnings of Emotional Life (New York: Touchstone, 1998), esp. p. 203.

This is a modest appropriation of the much wider critique of traditional rationalist models in Antonio Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain* (New York: G. P. Putnam, 1994).

³⁷ Thanks to Barry O'Neill for suggesting this point.

As we shall see, the activation of fear and/or pride in the decisionmaker has substantial consequences for his or her behavior, not only via effects on information and beliefs, but also via effects on the more fundamental level of desires.³⁸

In developing the links between specific types of NICs and behavior, the theory presented here aspires to cross-cultural generalizability. An increasing body of literature from across the social sciences has made the point that "culture matters" to the nature of group goals, values, and interpretations of external reality.³⁹ The theoretical framework of this book is compatible with the less extreme versions of the culturalist strand. It admits that different cultures may be more or less congenial environments for the development of certain types of NICs; but it insists that each particular type of NIC, once established in an individual, will have essentially the same emotional and ultimate behavioral consequences. This stance finds strong empirical support from mainstream psychological research.⁴⁰

Oppositional NICs and fear I have defined "oppositional" NICs as being based on a stark black—white dichotomization of "us against them." It is reasonable to expect that an individual holding an oppositional type of NIC would feel fear when involved in significant interactions with "them." Like all emotions, the precise definition of fear is the subject of debate, but one could do worse than the basic dictionary definition: fear is a feeling of agitation and anxiety caused by the (perceived) presence or imminence of danger. "Danger" here must be interpreted broadly to mean the possibility not only of physical but also emotional or psychological harm. Indeed, much identity literature has found that fear of the other is not limited to expectations of physical harm. 42

What are the consequences of fear for cognition and ultimately behavior? The IR literature often uses the word "fear" to dramatic effect, but it has rarely attempted to delineate precisely what fear is or what it

³⁸ Thanks to Roger Petersen for his insights on this point.

³⁹ Gert Hofstede, Culture's Consequences: International Differences in Work-Related Values (Beverly Hills, CA: Sage Publications, 1980); Lawrence E. Harrison and Samuel P. Huntington, eds., Culture Matters: How Values Shape Human Progress (New York: Basic Books, 2000).

⁴⁰ Klaus R. Scherer, "The Role of Culture in Emotion-Antecedent Appraisal," *Journal of Personality and Social Psychology*, Vol. 73, No. 5 (November 1997), pp. 902–22.

⁴¹ This definition fits with the appraisal theory of emotions. See Klaus R. Scherer et al., eds., Appraisal Processes in Emotion: Theory, Methods, Research (New York: Oxford University Press, 2001).

⁴² This has been a theme in the literature ever since the pioneering work of Simmel on the notion of the "Stranger." See Kurt Wolff, ed., *The Sociology of Georg Simmel* (New York: Free Press, 1950).

does. 43 The implicit tendency in some of the IR literature has been to argue that fear and anxiety, for instance in a crisis situation, focus the mind and thus actually produce better-calculated responses to external stimuli than if they had not been present. 44 Some research in the field of American politics has shown that the very moderate levels of fear induced by campaign advertising can increase the decisionmaker's alertness, thus leading to higher decisionmaking performance. 45 But contemporary work in neuroscience and psychology has found that any substantial amount of fear will have more drawbacks than benefits for cognitive processing performance. Moreover, once they are activated, even completely unfounded fears are devilishly persistent. 46

In particular, fear has several effects on the decisionmaker: on the *perception of the level of threat*, on the *level of cognitive complexity* with which the decisionmaker operates, on the *felt urgency to act*, and on the *ultimate goal* sought by that action. I consider each of these points in turn; later I will explicitly draw the links between these general points and the specific matter of nuclear decisionmaking.

Higher threat assessment.⁴⁷ Fear tends to create, on the cognitive level, a predisposition toward high threat perception, whose effects are well known in the IR literature.⁴⁸ There can be many mechanisms by which fear leads to higher threat estimates, and indeed often exaggeratedly high ones. One such mechanism is that the fearing individual has a tendency to

44 An argument like this one can be found in Barry Posen, The Sources of Military Doctrine: France, Britain and Germany between the World Wars (Ithaca, NY: Cornell University Press, 1984). Crawford, "The Passion of Politics" also mentions these arguments.

⁴⁵ Ted A. Brader, "Campaigning for Hearts and Minds: How Campaign Ads Use Emotion and Information to Sway the Electorate," Ph.D. dissertation, Harvard University, 1999.

46 "Telling an acrophobic that no one has ever accidentally fallen off the Empire State Building and that he will be just fine if he goes to the top, or forcing him to go up there to prove the point, does not help, and can even make the fear of heights worse rather than better" (LeDoux, *The Emotional Brain*, p. 236).

⁴⁷ I use this term as it is used in the policymaking world: a "threat assessment" is an estimate of the other side's capacity to do us harm, if we do nothing. Such threat assessments are then *followed* by recommendations of measures to take in order to counter the threat, thus producing a "net assessment."

⁴⁸ See, for instance, Ole Holsti, "Crisis Decision Making," in Philip Tetlock et al., eds., Behavior, Society, and Nuclear War, Vol. I (New York: Oxford University Press, 1989), pp. 8–84; Raymond Cohen, "Threat Perception in International Crisis," Political Science Quarterly, Vol. 93, No. 1 (Spring 1978), pp. 93–107. For more on the fear-threat connection, see Carroll Izard, The Psychology of Emotions (New York: Plenum Press, 1991), p. 284.

⁴³ For instance, Barry Buzan's People, States, and Fear: The National Security Problem in International Relations (Brighton, UK: Wheatsheaf, 1983) never defines the word "fear." One recent work that offers an interesting exploration of the consequences of fear is Neta C. Crawford, Argument and Change in World Politics: Ethics, Decolonization, and Humanitarian Intervention (Cambridge: Cambridge University Press, 2002), esp. pp. 26–7.

develop a sort of tunnel vision $vis-\grave{a}-vis$ the threatening stimulus. By narrowly focusing on the perceived source of the threat, there is a tendency to ascribe to it overwhelming significance and to react in kind. ⁴⁹

Lower cognitive complexity. "Cognitive complexity" is the ability to make new or subtle distinctions when confronted with new information – an ability that in turn makes the individual more receptive to new information. Fear has been shown to lead to lower cognitive complexity. Concrete effects of lower cognitive complexity include a further inflation in threat assessments (because of an inability to see ambiguity or nuance in the other's actions and pronouncements); a conflation of different types of threat, lumping threats to status together with threats to life and limb; and simplistic ideas about the utility of different instruments for dealing with the perceived threat. For instance, a leader operating under lowered cognitive complexity may consider military power to be a universally fungible resource like money, leading to the erroneous conclusion that the more destructive power the state amasses, the more secure it will be. 53

Greater urgency to act.⁵⁴ The psychologist Kim Witte writes that a "heightened level of fear and threat motivates people to take some kind of action – any action."⁵⁵ This demand for action leads to haste in the decisionmaking process. A hasty process in turn tends to produce an even heavier reliance on stereotypes, and failures to complete the search for relevant information about the situation or to digest the relevant information that is at hand, in addition to producing quick final action.

⁴⁹ Crawford, "The Passion of World Politics" makes this point in relation to how fear might affect nuclear deterrence stability on p. 147. For the scientific basis for my claims, see Izard, *The Psychology of Emotions*, p. 312. See also Edward J. Lawler and Shane R. Thye, "Bringing Emotions into Social Exchange Theory," *Annual Review of Sociology*, Vol. 25 (1999), p. 232.

⁵⁰ The definition is borrowed from Janice Gross Stein, "Political Learning by Doing: Gorbachev as Uncommitted Thinker and Motivated Learner," *International Organization*, Vol. 48, No. 2 (Spring 1994), p. 165.

⁵¹ One reason for this is that the experience of fear diverts mental energy that would otherwise have been available for cognition. The relevant literature is cited in Lawler and Thye, "Bringing Emotions into Social Exchange Theory," p. 230.

⁵² See Richard W. Cottam, Foreign Policy Motivation: A General Theory and a Case Study (Pittsburgh: University of Pittsburgh Press, 1977).

⁵³ A careful consideration of the various simplifications that power analysis is subject to is David A. Baldwin, "Power Analysis and World Politics: New Trends versus Old Tendencies," World Politics, Vol. 31, No. 2 (January 1979), pp. 161–194. For the ambiguities of "power" and nuclear weapons, see Robert Jervis, "International Primacy: Is the Game Worth the Candle?" International Security, Vol. 17, No. 4 (Spring 1993), pp. 52–67.

⁵⁴ I would like to thank Stephen P. Rosen for pointing out this dimension.

⁵⁵ Kim Witte, "Fear as Motivator, Fear as Inhibitor: Using the Extended Parallel Process Model to Explain Fear Appeal Successes and Failures," in Peter A. Andersen and Laura K. Guerrero, eds., Handbook of Communication and Emotion: Research, Theory, Applications, and Contexts (San Diego: Academic Press, 1998), p. 428.

Ultimate goals: decreasing the danger or decreasing the fear? As the experience of fear is physically uncomfortable and mentally oppressive, the urge to decrease the fear – in other words, trying to calm down – can become as important to the individual as the urge to decrease the danger. This is the most significant of all the behavioral consequences of the fear emotion, for the behaviors that decrease fear are not always danger-decreasing as well. The urge to decrease the fear can be seen at the root of many seemingly irrational responses to threat, from the "ostrich" approach of simply sticking one's head in the sand, to witch hunts and the appeal to protective deities, or to the acquisition of totems of power. The importance of the experiments of the experimen

The examples in the preceding sentence give just a hint of the incredible diversity of the potential behavioral responses to the experience of fear. In the past, psychologists believed that a standard type of fearful behavior would occur involuntarily in response to a conditioned stimulus. But today, the psychological consensus is that although fear creates an *urge* to act defensively, that urge might be expressed in myriad ways.⁵⁸ The wellknown basic distinction in fear responses is between "fight" and "flight." In other words, some choose to defy the fear-producing object while others try simply to hide from or evade it. What explains these different choices? To understand this, we need to turn to intervening variables. As Kim Witte and others have argued, the crucial intervening step between fear and behavior is pride. 59 In a nutshell, pride in the face of fear leads to defiance, while a lack of pride in the face of fear leads to avoidance. This two-step model of fear and then pride is akin to the bureaucratic process of intelligence analysis: first, a "threat assessment" is developed, which identifies the dangers if we do nothing; then, a "net assessment" is developed, which identifies the degree to which we can do something to forestall the dangers. But pride even in the absence of fear has significant behavioral consequences, which can be termed self-assertion.

Nationalist NICs and pride The importance of pride as a switching mechanism between two very different responses to fear naturally

⁵⁶ Witte, "Fear as Motivator," p. 430.

⁵⁷ For many examples of fear-driven "irrational" behavior, see Jean Delumeau, Rassurer et protéger: le sentiment de sécurité dans l'Occident d'autrefois (Paris: Fayard, 1989).

⁵⁸ Jerome Kagan, *Three Seductive Ideas* (Cambridge, MA: Harvard University Press, 1998), p. 22.

Witte, "Fear as Motivator"; Jervis, Perception and Misperception in International Politics, esp. pp. 372–378, and Richard Nadeau, Richard G. Niemi, and Timothy Amato, "Emotions, Issue Importance and Political Learning," American Journal of Political Science, Vol. 39, No. 3 (August 1995), pp. 558–574. Note that because the literature on pride per se is rather thin, in this section I am also relying on the literatures on related phenomena such as "self-efficacy" and "self-esteem."

leads to a consideration of the second, status dimension of NICs. Along this dimension, I have defined "nationalist" NICs as being based on a basic sense of international efficacy, or in other words, faith in the nation's natural ability to hold its head high in relation to its key comparison other(s). Given this definition, it is hardly a stretch to expect that the nationalist would feel *pride* when involved in significant interactions with those others. Indeed, the linkage of nationalism with pride is almost a truism, but, as in the case of fear, the IR literature has tended to use the word more than it has investigated its true meaning.

The dictionary definition of pride has two key elements: it is both a general sense of one's proper dignity and value, and a specific pleasure or satisfaction taken from (actual or expected) achievement or possession. ⁶⁰ The feeling of national pride has several effects on the decisionmaker: on perceptions of the nation's relative potential power; on perceptions of the nation's ability to avoid mistakes or accidents; on the felt importance of autonomous action; and on the ultimate goals sought by that action. I consider each of these in turn.

Higher relative potential power perceptions. Feelings of pride enhance the nationalist's sense of the nation's "natural" capability, if it exerts itself, to affect others' behavior. ⁶¹ Pride may lead to "exaggerated" perceptions of how high in power and status the nation can hope to rise, but the extra effort these perceptions encourage can often turn such "exaggerated" self-perceptions into self-fulfilling prophecies. Indeed, it is important to note that pride is generally associated with greater effort, not with standing pat. ⁶²

Illusions of control. Feelings of pride also give rise to a sense that we are not mistake- or accident-prone. This is what psychologists call "illusions of control." Such illusions short-circuit searches for information about potential unintended consequences of a given decision, and they also produce inattention to the details of policy implementation. These points are pithily summarized in the biblical phrase, "Pride goeth before a fall." (Such illusions are crucially important for understanding decisions

⁶⁰ Jon Elster prefers to separate "pride," a feeling derived from a specific action, from "pridefulness," a generalized sense of self-worth. Jon Elster, Strong Feelings: Emotion, Addiction, and Human Behavior (Cambridge, MA: MIT Press, 1999), p. 22. For another discussion of definitions, see also Donald L. Nathanson, Shame and Pride: Affect, Sex, and the Birth of the Self (New York: Norton, 1992), pp. 83–86.

⁶¹ By contrast, the extreme lack of pride produces "depression," a condition in which people do not believe that they can do anything to change others' behavior toward them.

Here I am extrapolating from findings on the effects of personal pride to group pride.
 Julie K. Norem and Nancy Canto, "Cognitive Strategies, Coping, and Perceptions of Competence," in Robert J. Sternberg and John Kolligan, Jr., eds., Competence Considered (New Haven: Yale University Press, 1990), pp. 192–193.

to build nuclear weapons, given the catastrophic potential of nuclear "normal accidents.") 64

The need to act autonomously. High pride also affects preferences over strategies by making people want to do on their own what they think they can do on their own. In other words, it produces positive utility from the act of "standing alone," even if the ultimate material objective of that act could be more easily or more fully achieved by cooperation. Indeed, for the prideful, to receive assistance can even be a worse blow than whatever harm that assistance averted. As the great African-American abolitionist Frederick Douglass put it:

The American people have always been anxious to know what they shall do with us. . . . Do nothing with us! If the apples will not remain on the tree of their own strength, if they are worm-eaten at the core, if they are early ripe and disposed to fall, let them fall! I am not for tying or fastening them on the tree in any way, except by nature's plan, and if they will not stay there, let them fall. And if the negro cannot stand on his own legs, let him fall also. All I ask is give him a chance to stand on his own legs!⁶⁵

Douglass' acute sense of racial pride led him to desire the experience of autonomy, even if there turned out to be some material price to pay for it.

Ultimate goals: impressing others or ourselves? Pride is addictive. It feels good, and yet such feelings are hard to sustain and therefore require constant reinforcement. This desire is all the more acute in many nationalists, who often proceed from a conviction about the nation's "natural" place in the sun as opposed to its perceived actual place in the gutter. The nationalist's quest to prove himself right can thus be as much directed inward, to reinforce his own ideas, as outward, to impress others. Indeed, Robert Jervis has suggested that weapons procurement decisions may often result as much from the desire to bolster self-confidence as from any other motivation.

⁶⁴ For a catalogue of these dangers, see Scott D. Sagan, *The Limits of Safety: Organizations*, *Accidents, and Nuclear Weapons* (Princeton: Princeton University Press, 1993).

⁶⁵ Frederick Douglass, "What the Black Man Wants: Speech at the Annual Meeting of the Massachusetts Anti-Slavery Society at Boston (April 1865)," in Carlos E. Cortés, Arlin I. Ginsburg, Alan W. F. Green, and James A. Joseph, eds., *Three Perspectives on Ethnicity: Blacks, Chicanos, and Native Americans* (New York: G. P. Putnam's Sons, 1976), p. 93.

Michael Lewis argues that global feelings of pride (which he terms "hubris") are difficult to sustain and therefore require constant reinforcement. Michael Lewis, "Self-conscious Emotions: Pride, Shame, and Guilt," in M. Lewis and J. Haviland, eds., *Handbook of Emotions* (New York: Guilford, 1993), pp. 623–636.

⁶⁷ Robert Jervis, The Meaning of the Nuclear Revolution (Ithaca, NY: Cornell University Press, 1989), p. 214.

Hypotheses on NICs and nuclear choices

What nuclear decisions are likely to arise out of the cauldron of NIC-driven emotions? Here, I first show why oppositional nationalist leaders – who experience the combined emotions of fear and pride – are likely to be highly motivated for nuclear weapons acquisition, while leaders with other types of NICs are not likely to be so motivated. I then spell out each NIC type's likely preferences on ancillary nuclear policy choices.

NICs and the choice on the bomb Why are oppositional nationalist leaders likely to seek nuclear weapons? All of the psychological mechanisms mentioned above combine to produce this result. The "opposition" in oppositional nationalism generates feelings of fear in confrontations with the key comparison other (no other "other" will do). Fear produces a higher threat assessment, which motivates a serious commitment to enhance the nation's defenses. It also produces a greater urgency to act, to do something significant to improve the security situation. Fear also lowers cognitive complexity, blurring the perceived lines between destructive force and political-military power, and therefore making having the bomb seem more advantageous. Finally, to the goal of decreasing the danger it adds the goal of decreasing the fear, which can be achieved through acquisition of symbols of power – and there is no symbol of power more powerful than a nuclear bomb. Then, in the two-step process of threat assessment followed by net assessment, after the "opposition"-generated fear comes "nationalism"-generated pride. Pride produces higher potential capability perceptions, which lead to the sense that we can in fact build our own credible nuclear deterrent. It produces "illusions of control," which dissolve anxieties about unintended consequences such as nuclear accidents. Pride also creates a preference for undertaking autonomous action, such as self-help through nuclear proliferation, even if other solutions to the nation's security problems are available. And, finally, to the goal of cowing others it adds the goal of impressing ourselves – a goal that can hardly be better achieved than through the terrible beauty of a homemade mushroom cloud.

In short, the operations of fear and pride together point the oppositional nationalist leader strongly in the direction of seeking the bomb. Indeed, as I have stressed, the action of these emotions produces more than mere *ceteris paribus* policy preferences. The argument of this book is not only about decisional outcomes; it is also about decisionmaking *processes*. The oppositional nationalist leader, operating under the emotional impulsions of fear and pride, is not likely to tarry long before taking the nuclear leap in the dark. For the oppositional nationalist leader, the decision to acquire

nuclear weapons is not only a means to the end of getting them; it is also an end in itself, a matter of self-expression. This decision, as the product of a rush of emotions, is likely also to be a *hasty* decision – in other words, a decision that comes without serious prior calculation. In the leader's haste to choose for the bomb, other policy alternatives are likely to have been simply brushed aside, as are questions about how to prepare to manage the additional technical hurdles, political storms and bureaucratic headaches that inevitably come in the bomb's wake.

The oppositional nationalist's emotional impulsions in this direction are so strong that the mere arrival in power of such a leader is practically a sufficient condition to spark a decision to build the bomb, assuming a few other basic conditions apply. These conditions are the following. First, the state should have at least some experience in the nuclear field. This experience, however, need not have been extensive; a leader's decision certainly need not wait for a stockpile of plutonium or enriched uranium sufficient for a bomb to be accumulated. Second, the state should be engaged in reasonably intense interactions with the key comparison other. These interactions are what sets off the activation of the NIC, emotional memories, and so forth. Third, the leader should have a fair degree of control over the state apparatus. Interestingly, this condition does not tend to be as restrictive as one might assume. Domestic nuclear institutions have tended to be centralized under the control of the top leader, even in generally relatively decentralized polities. This gives a degree of latitude even to those leaders who might normally find themselves quite constrained by a Cabinet or a Congress, for instance. However, this and the other conditions do suggest that we should see more oppositional nationalist leaders than nuclear weapons states.

Other NICs, lacking the mixture of fear and pride, are not likely to motivate leaders to seek the "absolute weapon." Leaders holding oppositional subaltern NICs would certainly deeply desire the protection they consider the bomb to provide, but they would lack the self-assurance required to "go nuclear" themselves: they would worry about whether their state could actually develop a secure second-strike capability, whether they could rule out the possibility of "normal accidents," whether moving down this path would cause their allies to abandon them, and so on. Meanwhile, leaders holding sportsmanlike nationalist NICs might feel supremely confident that they could ride out the storm that acquiring the bomb would create, but they would see no need to brew that storm. And while they might perceive some potential international status benefits from the acquisition of nuclear weapons, they should choose to forgo

⁶⁸ For more on decisions without calculations, see Rosen, War and Human Nature.

those benefits in light of the potential provocation that acquisition would represent to their rivals. ⁶⁹ Indeed, they might even argue that the nation would reap greater status benefits from nuclear abstention. Finally, leaders holding sportsmanlike subaltern NICs would lack either the motivation or the certitude required to take such a dramatic step as building the bomb.

It is important to reiterate that the distinction I am making here is not between "crazy" oppositional nationalists and "sensible" others. Everyone is operating in the same informational vacuum and is therefore reduced to turning this issue into a matter of individual self-expression. Indeed, it is necessary to recall that leaders' NICs may take different shapes vis-à-vis different key comparison others. Oppositional nationalism is not generally a character trait; it is an individual's understanding of the nation in comparison to a certain key comparison other. This raises the question, which of these self-other relationships is more likely to matter most to a leader's nuclear policy choices? The answer stems from the relative level of psychological motivation that each NIC creates. The basic rule of thumb here is that fear creates more motivation than pride, which in turn produces more motivation than the lack of fear or the lack of pride. So in the case where an individual has various NICs toward different external actors, the order of importance of these self-definitions for nuclear policy is as follows: oppositional nationalism (fear + pride) >oppositional subaltern (fear alone) > sportsmanlike nationalism (pride alone) > sportsmanlike subaltern (neither emotion).

Implications of NICs for ancillary nuclear policy questions What of ancillary nuclear policy questions, such as whether or not to seek nuclear technological autonomy for the nation, whether or not to resist the discriminatory international non-proliferation regime, and whether or not to seek a nuclear "umbrella" from a superpower? The theoretical framework presented in this chapter can speak to these issues as well, with one important caveat. Ancillary nuclear decisions are less revolutionary – less "big" – than the decision to acquire the bomb itself. Therefore the policies states adopt on these matters are probably more apt to be understood through conventional political science analysis. For instance, they may be downstream results of the basic choice of whether or not to get the bomb; or they can result from run-of-the-mill political considerations; or they

One can cook up hypothetical situations in which a sportsmanlike nationalist state leader is confronted with an overwhelming objective threat, a combination that produces a kind of counterfeit of the emotional effects of oppositional nationalism. But it is very rare to find threats that are so overwhelming that they brook literally no debate about their nature.

NIC type	Go for bomb?	Pursue nuclear technological autonomy?	Resist non-proliferation regime?	Seek superpower nuclear guarantees?
Oppositional nationalist	Likely	Likely	Likely	Ambiguous to likely
Oppositional subaltern	Unlikely	Unlikely	Unlikely	Likely
Sportsmanlike nationalist	Unlikely	Likely	Likely	Unlikely
Sportsmanlike subaltern	Unlikely	Unlikely	Unlikely	Ambiguous to unlikely

Table 2.2 Leaders' NICs and likely nuclear policy preferences

can simply result from good old-fashioned cost-benefit analysis. Still, it is worthwhile listing the basic tendencies to which different NICs give rise on these ancillary nuclear policy questions, and Table 2.2 does so.

Below I explain the origins of these basic tendencies one NIC at a time. Oppositional nationalist NICs. Oppositional nationalists want the bomb. In line with this overall goal, they should generally promote advancement of indigenous nuclear technology and reject the nuclear non-proliferation regime. However, some oppositional nationalists might see taking other steps on these ancillary matters as better promoting the overall goal of getting the bomb. For instance, they may view joining the international non-proliferation regime as the quickest way to acquire the relevant technology necessary for an indigenous bomb effort. In that case, they will indeed want to join the regime. The oppositional nationalist's likely stance on the matter of nuclear guarantees is even more ambiguous. On the one hand, oppositional nationalists are likely to be desperate for some protection against the perceived threat, but on the other hand, they are likely to want to avoid falling under a superpower's tutelage. This simultaneous demand for and resentment of a superpower's assistance is plainly in evidence, for instance, in Maoist China's relationship with the Soviet Union in the late 1950s. 70 In the final analysis, as fear is a stronger motivator than pride, the oppositional nationalist will probably accept the umbrella as a quick fix to pressing security problems, while still continuing work on the long-term preferred solution of an independently held nuclear deterrent. Indeed, if the leader plays his cards right (as Mao did), the period

⁷⁰ See John Wilson Lewis and Xue Litai, China Builds the Bomb (Stanford: Stanford University Press, 1988), esp. p. 221.

of superpower tute lage may in fact hasten the development of indigenous technical capabilities. $^{71}\,$

Sportsmanlike nationalist NICs. Given their tendency not to fear their key comparison others, sportsmanlike nationalists should not seek nuclear weapons. They should also reject accepting a superpower "nuclear umbrella," seeing no great security need for one and fearing that accepting it would cause them to fall under the superpower's tutelage. But at the same time, sportsmanlike nationalists may well be interested in building a significant nuclear technology infrastructure, for both the "productive" goal of boosting national development and the "self-expressive" goal of increasing their nation's international prestige. For these same reasons of self-expression, they may well also resist the non-proliferation regime because of its discriminatory character of dividing the world into nuclear "haves" and "have-nots" (they could, however, probably swallow non-discriminatory, universal nuclear disarmament measures). 72 When inflamed by heavy-handed international pressures, sportsmanlike nationalists' pride should lead to a particular emphasis on the self-expressive elements of their nuclear policy stance.

The above hypotheses for sportsmanlike nationalists are quite novel in the proliferation literature. They provide a theoretical justification for the oft-heard (and oft-mocked) claim by various states that their rejection of the NPT and/or buildup of nuclear technology does not indicate that they harbor nuclear weapons ambitions. Such choices, of course, leave the door open to an eventual nuclear weapons drive, and sportsmanlike nationalists will be aware of that fact. But the awareness that the door is open should not be equated with a desire to walk through it. As stressed in Chapter 1, the proliferation literature has time and again been mistaken to extrapolate nuclear postures from technical potential. Indeed, if sportsmanlike nationalists believe that their stances on the NPT or on building up nuclear technology are in fact seriously threatening to trap them in a conflict spiral that ultimately leads to nuclear proliferation, they will likely moderate those stances.

Oppositional subaltern NICs. Given their lack of belief in their nation's capacity to muster a credible deterrent, oppositional subaltern leaders

⁷¹ The fact that the nuclear umbrella can potentially serve as a proliferation incubator again tips the scales slightly in favor of the oppositional nationalist's acceptance of superpower tutelage. But it need not serve this function. Thanks to Andy Kennedy for this insight.

The strength with which such policies are maintained, however, may vary according to the overall historical context. In the first decades of the "nuclear era," nuclear energy was seen as the key to the future, so the discriminatory provisions of the NPT were felt much more keenly than they are today, when nuclear energy is increasingly becoming tarred as a technological dead end.

should not seek to acquire nuclear weapons. However, oppositional subalterns will certainly be motivated to find some solution to their sense of insecurity. The most seductive policy in their eyes is likely to be the option of hiding underneath someone else's nuclear umbrella. Indeed, even having received a superpower nuclear guarantee, they are likely to be perennially unsatisfied by what they see as its low credibility, and so they will be constantly pleading for a renewed and tightened guarantee. Heanwhile, oppositional subaltern leaders should consider rejecting the NPT or to developing such nuclear technology on their own as bold stances that are simply beyond their nation's capacities. In any case they will subject their stances on such issues to the overriding priority of maintaining the good relations with the superpower that provides them with the nuclear guarantee. The most selection of the superpower of the provides them with the nuclear guarantee.

Sportsmanlike subaltern NICs. Lacking either sufficient motivation or gumption, sportsmanlike subaltern NICs should make no decision to acquire nuclear weapons. Moreover, they should not go out of their way to seek a nuclear umbrella, and if they happen to enjoy the protection of one they should be satisfied by a low level of credibility – indeed, they may worry that its credibility is too high. They should also see no reason to develop a level of nuclear technology beyond what would be economically efficient or to stay outside the NPT. Indeed, they will strongly favor the creation of formal international institutions like the NPT regime that provide them with certain rights that are perhaps incommensurate with their perceived material power potential.

Theory-testing and contextualization

The theory has been advanced and the hypotheses enumerated. There remain two unanswered theoretical questions. First, the question of

As a small caveat to this general rule, one could imagine that oppositional subaltern states might on occasion indulge in some fear-driven paroxysm of self-defeating behavior, akin to the peasant riots that the parallel mentality in the domestic context sometimes produces. See James C. Scott, Weapons of the Weak: Everyday Forms of Peasant Resistance

(New Haven: Yale University Press, 1985).

This phenomenon was very much in evidence among many Western European states during the Cold War, but it is not the straight realist behavior that it is often portrayed to be. For just as acquisition of nuclear weapons can provoke as well as deter, so too does increasing the credibility of extended deterrence over a certain threshold. By seeking the umbrella, a state can end up increasing its importance as a target. For instance, French governments in the 1950s clearly understood that they could have too much of a good thing. They accepted the US nuclear umbrella against the Soviets but did not want to become a priority target of Soviet nuclear attack, so they never allowed US nuclear weapons to be placed on French soil. See Olivier Pottier, "Les armes nucléaires américaines en France," Cahiers du Centre d'Etudes d'Histoire de la Défense, No. 8 (1998), pp. 35–60, and Chapter 4 of this book.

theory testing: how can we know if the theory advanced here is right? Second, the question of the theory's relevance: even if the theory were proven right, how much would this help us to understand the overall issue of nuclear proliferation? This section tackles these questions in turn.

Testing the theory

Any serious effort at understanding nuclear proliferation soon confronts the unfortunate fact that our basic information set on the nuclear histories of countries other than the United States and the United Kingdom is generally very poor. There are many books on proliferation around the world, but as stated earlier, most tend to focus on nuclear capacities instead of on nuclear intentions – and then confuse the two. The literature is also notorious for exhibiting a double standard in its treatments of "Northern" and "Southern" states. 75 Most tellingly, given the objectives of this project, the literature tends to rely heavily on outsiders' assessments – often by US government agencies - rather than on careful study of internal state documents or in-depth interviews with those who were directly involved. Such an arm's length approach to data-gathering is a sure formula for recycling the old conventional wisdom in perpetuity. The only way to break the cycle is to select a few country cases and to do intensive field research there. That is what I have done. Moreover, it should be noted that the nature of the theory being tested here – its focus on leaders as individuals and on their nuclear decisionmaking processes rather than merely on the decisional outcomes – also recommends such an in-depth research approach.

This study focuses on four country cases – Argentina, Australia, France, and India. The hope is that the theory could eventually be applied to many other cases of proliferation and non-proliferation, but with a careful selection of four cases it can nevertheless be subjected to a serious test. The cases were selected according to three considerations. First, for the purpose of ensuring variation on the dependent variable, it was necessary to select a mix of nuclear and non-nuclear (but

⁷⁵ The Northern bias of works on proliferation has been often noted, especially by scholars from other world regions. The point is strongly made in Martin Van Creveld, *Nuclear Proliferation and the Future of Conflict* (New York: The Free Press, 1993).

Peter Hall has noted that the in-depth, process-tracing strategy utilized in this book is typically at its most effective with a small-n comparative research design of three or four cases, while the marginal returns of having more than four cases are generally small. Peter A. Hall, "Aligning Ontology and Methodology in Comparative Research," in James Mahoney and Dietrich Rueschemeyer, eds., Comparative Historical Analysis in the Social Sciences (Cambridge: Cambridge University Press, 2003), pp. 373–404.

Built the bomb

"Northern" state

France
(first reactor online: 1940s; decision for bomb: 1950s)

"Southern" state

Built the bomb

Australia
(first reactor online: 1950s)
no decision for bomb)

Argentina
(first reactor online: 1950s; (first reactor online: 1950s;

no decision for bomb)

Table 2.3 Case selection criteria (overall criterion: possibility of adequate access to inside information)

decision for bomb: 1990s)

evidently nuclear-capable) states.⁷⁷ Second, for the purpose of testing the theory's claims to generality, it was necessary to select a mix of countries from both the North and the South, and countries whose moments of truth on nuclear weapons occurred at different junctures of the nuclear era. Finally, for the purpose of adequate access to information, it was necessary to select countries whose nuclear moments of truth lay somewhat in the past, and whose societies are open enough today to maximize the chances that the facts of the case could be ascertained.⁷⁸ How the four selected cases selected respond to these criteria can be visualized in Table 2.3.

The mix of selected cases also turns out to be valuable from the perspective of *competitive* theory testing. As mentioned in Chapter 1, until now the proliferation literature has, broadly speaking, offered four general hypotheses on why states might choose to acquire nuclear weapons. These are the following:

- Techno-centrism: the gradual advancement of a state's technical nuclear capacities inexorably leads to the eventual production of nuclear weapons.
- Defensive realism: a state facing a more powerful regional adversary will seek to "equalize" the security situation through the acquisition of nuclear weapons.⁷⁹

Note, however, that only in-depth field research could determine whether or not the non-nuclear states had actually witnessed a decision to go nuclear that had simply never been implemented.

79 Some variants of defensive realism would claim that proliferation would occur unless the state could procure a credible nuclear guarantee from a superpower protector; others would claim that this would occur regardless of the availability of a guarantee. I disagree

This stricture tends to weight the case selection away from the "rogue regimes" that are the typical focus of the proliferation literature. This is not necessarily a bad thing. Indeed, more open societies represent "hard tests" for the leader-centric theory developed here; if it works on those cases, we may reasonably assume that it would also work on the tyrannies like North Korea or Libya that garner the lion's share of the literature's attention.

Country	Technocentric hypothesis: State has developed latent nuclear capacity? ^a	Realist hypothesis: State is facing a superior regional power?	Norms hypothesis: State is a pretender for regional or great power status?	Bureaucratic politics hypothesis: State has well-placed nuclear bureaucracy?	Year of decision to go nuclear
Argentina	Yes: 1961	Yes (Brazil, UK)	Yes	Yes (until 1990s)	None
Australia	Yes: 1961	Yes (China)	No	Yes (until 1970s)	None
France	Yes: 1950	Yes (USSR)	Yes	Yes	1954
India	Yes: 1958	Yes (China)	Yes	Yes	1998^{b}

Table 2.4 The cases vs. commonly asserted explanations for the bomb

Notes: estimates of the variables are drawn from the book's case study chapters.

- International norms: a state seeking international prestige, for instance one that pretends to regional leadership or great power status, will seek nuclear weapons as a membership ticket to the most exclusive international club.
- Bureaucratic politics: a self-interested nuclear bureaucracy with sufficient political clout and direct access to the top leader will impose its preference for nuclear weapons on the rest of the state.

None of these traditional perspectives easily explains the pattern of proliferation outcomes of the four cases, as Table 2.4 demonstrates.

As the table shows, all four countries had ample means and – if we buy in to the standard perspectives – plenty of reasons to "go nuclear." Therefore, not surprisingly, US government documents reveal significant, long-standing suspicions about each country's nuclear intentions. For instance, as early as the late 1940s the US government accused Argentina of seeking nuclear weapons. Moreover, a secret 1963 study by Secretary of Defense Robert S. McNamara listed Australia among eight states likely to acquire nuclear weapons in the next decade in the absence of a global

with both variants. For instance, the four country cases reviewed in this book show no correlation between having a strong alliance partner and nuclear abstention. For instance, even though it was non-aligned, indeed diplomatically isolated in the 1970s and 1980s, Argentina did not go nuclear; meanwhile, even though France was a very close US ally in the 1950s, it did go nuclear.

⁸⁰ Regis Cabral, "The Interaction of Science and Diplomacy: The United States, Latin America and Nuclear Energy, 1945–1955," Ph.D. dissertation, University of Chicago, 1986.

^a As estimated by the latent capacity model used in Figure 1.1.

^b The coding of 1998 as the definitive Indian decision for the bomb is not unquestionable (see Chapter 7).

test ban (which in fact never materialized). ⁸¹ Yet of the four country cases selected, only France and India did end up building the bomb. Moreover, as the case studies will demonstrate, even the French and Indian stories do not conform well to the conventional models. For one thing, neither state saw decisions to acquire nuclear weapons occurring quickly after it reached an adequate level of technical capacity: France waited several years, and India waited several decades before finally taking the ultimate nuclear plunge. Overall, the closer one gets to these cases, and the more one focuses on the questions of why, when, and how decisions on the bomb were made, the less one finds traditional explanatory variables such as those listed in Table 2.4 to be satisfactory. The case study chapters demonstrate that the theory introduced in this book performs far better than the alternatives, although it, too, does not anticipate all the twists and turns in the four countries' nuclear histories.

Placing decisions for nuclear weapons in context

This study is primarily geared to explain decisions by top political leaders to acquire nuclear weapons. It is important to reiterate that such decisions are not synonymous with the actual acquisition of the bomb itself. Depending on how far the state has come technically, such acquisition may occur between a few days and several years after the political decision has been taken. Indeed, the state may never get its bomb. Dedicated efforts to acquire nuclear weapons may founder at the stage of implementation for various reasons. To take the most obvious example, a political decision may never be realized because of technical failure on the part of nuclear scientists and engineers. But other variables on the levels of bureaucratic, domestic, and international politics may well also intervene to knock a nuclear weapons program off the course on which a top leader originally set it. Nevertheless, the top-down political decision to go nuclear is the most significant, and indeed unavoidable, step along the way to the acquisition of nuclear weapons.

Such top-down political decisions are significant in no small measure because of the tremendous momentum they create toward actual acquisition. One can identify both a psychological and institutional rationale for the power of top-down political decisions to spawn actual nuclear weapons. The psychological rationale is based in "escalation of commitment" theory. This theory sees decisionmakers as eager to protect their

⁸¹ The others were China, Sweden, India, Japan, South Africa, West Germany, and Israel. Robert S. McNamara, secret memorandum to President John F. Kennedy, "The Diffusion of Nuclear Weapons With and Without a Test Ban Agreement," February 12, 1963, accessed through National Security Archive, document no. NP00941.

self-esteem and therefore likely to become ever more certain of the correctness of their decisions on complex, consequential questions after they make them – even in the face of mounting evidence to the contrary.⁸² Therefore they become determined to finish what they started. Moreover, given that this type of decision engages the entire "national self," other decisionmakers and the public at large should also be subject to the forces of escalation of commitment – a kind of "rally round the flag" effect. Meanwhile, the institutional rationale for the power of the initial nuclear decision is a straightforward bureaucratic momentum argument. Although bureaucracies require initial direction, once they are given that direction they tend to move of their own accord. This momentum can be understood either from a classical Weberian perspective on bureaucracies as almost pathologically devoted to the implementation of political will, or from a more modern perspective on bureaucracies as stakeholders. The bureaucratic head of steam generated by the initial decision may often prove strong enough even to overpower later political leaders who wish to undo their predecessors' choice. In short, it may be hard to make a nuclear decision, but once that decision has been made, for both institutional and psychological reasons it is also hard – though not impossible – to unmake it.

Top-down nuclear decisions may have a good chance of ending up bearing fruit, but are they really necessary for nuclear weapons proliferation? The answer to this question depends to some extent on one's definition of proliferation. Few would contest the notion that top-down political direction is necessary to endow a state with a bona fide nuclear weapons arsenal – the traditional definition of nuclear proliferation. But a sizeable portion of the proliferation literature in recent years has begun to

⁸² For a balanced assessment of this theory as against the alternative "control theory," which is related to more conventional ideas about policy "learning," see Charles F. Hermann, Robert S. Billings, and Robert Litchfield, "Escalation or Modification: Responding to Negative Feedback in Sequential Decision Making," paper presented to the Fifth National Conference on Public Management Research, George Bush School of Government and Public Service, December 3–4, 1999, http://www-bushschool.tamu.edu/pubman/papers/1999/ Hermann99.pdf.

⁸³ Why? Because, although we colloquially speak of nuclear "bombs," in fact what we are discussing here are highly complex weapons systems, which integrate a nuclear explosive device with other technologies such as missiles. Moreover, these weapons systems, if they are ever to be employed in battle, require extensive testing and training by those charged with firing them. The combination of technologies, plus the element of human familiarity with those technologies, simply cannot be achieved without top-down direction. Without such efforts, even a fully fabricated bomb core is not an "instrument of attack or defense in combat" (the dictionary definition of a weapon) – it is simply a menace to those in its vicinity. My thinking on this issue has been aided by Christopher S. Parker, "New Weapons for Old Problems: Conventional Proliferation and Military Effectiveness in Developing States," *International Security*, Vol. 23, No. 4 (1999), pp. 119–147.

contend that this traditional definition of proliferation is too restrictive. For Benjamin Frankel and Avner Cohen, for instance, a state that has developed the various pieces of the nuclear puzzle, even if it has not put them all together yet, can be considered to have a virtual or "opaque" nuclear arsenal, which carries with it some of the same strategic consequences as an actual one (an example would be the case of Israel).⁸⁴ Cohen and Frankel's argument is a provocative one. But, in fact, keeping one's arsenal virtual is not just a "stylistic" choice, as Cohen and Frankel assert.85 For instance, two of Cohen and Frankel's examples of opaque or virtual nuclear arsenals in the 1980s and 1990s were India and Pakistan. If moving from virtual to actual nuclear arsenals were truly a mere stylistic choice, then the 1998 decisions by both countries to "come out" as nuclear powers should not have rocked the South Asian region nearly as much as they clearly did (see Chapter 7 for more on this). To take another example, one of the more radical arms control proposals bandied about in Washington today is for the existing nuclear powers to unmake their arsenals and to retain them only in a virtual state.86 No one doubts that this would represent an enormous strategic revolution. But if going from actual to virtual arsenals is such a big step, then going from virtual to actual arsenals must also be a big step, not a mere stylistic choice. In short, the simple fact is that whether or not we admit the strategic relevance of virtual or opaque nuclear arsenals, the distinction between "having" and "not having" nuclear weapons still stands, and therefore the dichotomous "yes-no" decision on nuclear weapons still remains a crucially important one for us to understand. And as this chapter has argued, the key variable for understanding why some say "yes" and others say "no" is the nature of the leader's NIC.

⁸⁴ Avner Cohen and Benjamin Frankel, "Opaque Nuclear Proliferation," in Benjamin Frankel, ed., *Opaque Nuclear Proliferation: Methodological and Policy Implications* (London: Frank Cass, 1991), pp. 14–44. For a generally positive summary and critique see Michel Fortmann, "The Other Side of Midnight: Opaque Proliferation Revisited," *International Journal*, Vol. 48 (Winter 1992–93), pp. 151–175.

⁸⁵ Cohen and Frankel, "Opaque Nuclear Proliferation," p. 23. For more on the South Asian case, see Chapter 7.

⁸⁶ Michael J. Mazarr, Nuclear Weapons in a Transformed World: The Challenge of Virtual Nuclear Arsenals (New York: St. Martin's Press, 1997).