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The unbearable lightness of luck: Three sources of overconfidence in the manageability of nuclear crises

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Abstract

Overconfidence in the controllability of nuclear weapons creates danger. The passing of the last elite witness of the most dangerous nuclear crisis, that is, the ‘Cuban Missile Crisis’, and the current Trump administration only make this more salient. In this context, this article reviews the scholarly literature about the limits of predictability and controllability of nuclear crises and investigates three failures of learning from them. Given that France displays in particularly acute form some of the sources of overconfidence in the controllability of nuclear crises that can be found in other nuclear armed states, this article offers the first study of the French experience and evolving interpretation of the Cuban missile crisis in comparative perspective, based on untapped primary material. In security studies, this article makes three contributions. First, the publication and interpretation of primary sources is a contribution in itself given the frequent misconceptions about nuclear dynamics due to theory-driven extrapolations. Second, it challenges a widespread assumption of automaticity linking a fear-induced deterrent effect and the presence of nuclear weapons. Third, empirically, this article studies part of a regime of valuation of nuclear weapons. It finally outlines a research agenda to take luck seriously in security studies.

Keywords

Cuban Missile Crisis; France; Fear; Learning; Luck; Nuclear Weapons

Introduction

On 25 November 2016, Fidel Castro died. He was the last surviving elite participant in the 1962 nuclear crisis, widely regarded as the closest humanity ever came to nuclear war. With his passing we have lost a direct link with the experience of very intense fear of imminent nuclear war, and with the learning of the crucial role of luck in preserving the world from nuclear devastation. From now on, our interpretation of the danger of the most dangerous crisis in the history of the nuclear age is radically detached from direct experience at the highest levels of decision-making.

At the same time, all nuclear weapons states are developing vast programmes to enhance their nuclear weapons capabilities, tensions between Russia and the West remain high, and the current US president is suspected by some to be more prone to using nuclear weapons in anger than any of his predecessors.¹ In such a context, this article offers a broader investigation of our beliefs about the

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¹ Ten former nuclear launch officers wrote an open letter to *The Washington Post* prior to the election explaining that: ‘The pressures the system places on that one person are staggering and require enormous composure,

ability to control nuclear weapons and manage nuclear crises based on a study of the so-called 'Cuban Missile Crisis' (hereafter referred to as the Crisis).

This crisis, which today is widely considered to be the closest mankind has ever come to nuclear war, is an essential case study for assessing the fear-inducing effects of nuclear weapons and understanding the possibility of nuclear learning.²

'Learning' in this context means learning from history, and it assumes that the interpretation of key events in the nuclear age plays a decisive role in the behaviour of policymakers in crisis situations.³ My understanding of learning is based on the three following premises. First, I accept the assumption that national experience is a major source of learning.⁴ Second, I accept the finding of the literature portraying overconfidence as a source of increased risks.⁵ Third, I assume that shared international learning about the limits of controllability of nuclear weapons is an important precondition for more informed nuclear decision-making and public deliberations on the subject.⁶ As a consequence of these three premises, I regard the absence of learning, or forms of memory that systematically deny the role of luck and promote overconfidence, as contributing to nuclear danger.⁷ The fact that learning is rare does not make its absence any less problematic or puzzling.

The core puzzle of this article is the following: the latest assessment of the Crisis emphasises the underestimation of the danger at the time, the limits of control over nuclear weapons, and the role of luck in the peaceful outcome of the Crisis. However, not all policy and scholarly communities have

judgment, restraint and diplomatic skill. Donald Trump does not have these leadership qualities.' Available at: {<https://assets.documentcloud.org/documents/3141707/Read-the-letter-from-former-nuclear-launch.pdf>} accessed 26 November 2016; Bruce Blair, 'Trump and the nuclear keys', *New York Times* (12 October 2016), available at: {http://www.nytimes.com/2016/10/12/opinion/trump-and-the-nuclear-keys.html?_r=1}.

² Hans Kristensen and Robert Norris, 'The Cuban Missile Crisis: a nuclear order of battle, October and November 1962', *Bulletin of the Atomic Scientists*, 68:6 (2012), p. 2, Don Munton, 'Hits and myths: the essence, the puzzles and the Missile Crisis', *International Relations*, 26:3 (2012), p. 305; Jean-Yves Haine, *Les Etats-Unis ont-ils besoin d'alliés?* (Paris: Payot, 2004), p. 203; James Hershberg, 'The Cuban Missile Crisis', in Melvyn Leffler and Odd Arne Westad (eds), *The Cambridge History of the Cold War, Volume II: Crises and Détente* (Cambridge: Cambridge University Press, 2010), p. 65. Paul Nitze considered the Berlin crisis as even more dangerous and Ray S. Cline is one of those in the US who maintains that the danger of the Cuban missile crisis was overestimated and, overall, quite minimal. Both of those judgements were formulated before the key discoveries of the 1990s reviewed in Section 1. Ray S. Cline, 'The Cuban Missile Crisis', *Foreign Affairs*, 68:4 (1989). Thanks to Leopoldo Nuti for directing me to this article.

³ Yuen Foong Khong, *Analogies at War: Korea, Munich, Dien Bien Phu, and the Vietnam Decisions of 1965* (Princeton: Princeton University Press, 1992); Richard Neustadt and Ernest R. May, *Thinking in Time: The Uses of History for Decision Makers* (New York: Free Press, 1988); Robert Jervis, *Perception and Misperception in International Politics* (Princeton: Princeton University Press, 1976), ch. 6.

⁴ Jervis, *Perception and Misperception in International Politics*, ch. 6.

⁵ Dominic Johnson links overconfidence to the breakout of war in *Overconfidence and War: The Havoc and Glory of Positive Illusions* (Cambridge, MA: Harvard University Press, 2004). In the realm of computer safety, Donald McKenzie showed that: 'The safer a system is believed to be, the more catastrophic the accidents to which it is subject.' Donald McKenzie, 'Computer-related accidental death: an empirical exploration', *Science and Public Policy*, 24:1 (1994), p. 246. This notion has been applied to nuclear weapons by Eric Schlosser in *Command and Control* (New York: Allen Lane, 2013), p. 313.

⁶ Jeffrey W. Knopf, 'The concept of nuclear learning', *Nonproliferation Review*, 19:1 (2012), p. 81 and 'The importance of international learning', *Review of International Studies*, 29:2 (2003).

⁷ Pioneering work here would include Richard Ned Lebow, *Nuclear Crisis Management: A Dangerous Illusion* (Ithaca: Cornell University Press, 1987).

taken these insights seriously. The unbearable lightness of luck seems constantly to escape the learning process.⁸ This article explores three reasons for this failure to learn, focusing on ideational factors. I do not deny the role of institutional and bureaucratic dynamics in the entrenchment of representations related to nuclear weapons, which will be explored in a subsequent essay, but I do not analyse them here. Staying at the level of ideas emphasises the responsibility of scholars and analysts to work in the name of avoiding overconfidence without waiting for structural or institutional change.⁹

Forms of learning that promote overconfidence have been documented across national cases. In India and Pakistan, as Russel Leng and S. Paul Kapur have noted: ‘the learning that has occurred has been largely dysfunctional and dangerously hawkish’.¹⁰ In the US, Pulitzer Prize winner and longtime analyst of US nuclear weapons policy Richard Rhodes similarly observed: ‘despite several close calls, ... no one in authority believes the damned things will go off, and so everyone wants to play with them, like treasure hunters wallowing in a vault of golden coins laced with guardian scorpions, like children discovering the loaded gun their parents thoughtlessly neglected to lock away.’¹¹ By contrast with the US and the UK, the other two nuclear-armed NATO states, France has received relatively little attention. Drawing on unexploited primary sources to illuminate this less-known case, the following article identifies and explains the limits to French nuclear learning.

In this context, France is a relevant case for two reasons. First, as Beatrice Heuser eloquently showed: ‘while nuclear weapons also have a metaphysical dimension for other nuclear powers, it is most developed in France’.¹² France displays in particularly acute form some of the sources of overconfidence in the controllability of nuclear crises that can be found in other nuclear armed states. If official representatives of all nuclear weapons states tend to portray themselves as responsible custodians of their nuclear arsenals, the French stand out for their public display of confidence in the perfect safety record of their nuclear arsenal. On 1 May 2015, French Ambassador Jean-Yves Simon-Michel stated before the Main Committee I of the Nonproliferation Treaty Review Conference that: ‘There is no risk of the [French nuclear] weapons being used non-intentionally.’ Two weeks before, he had given a tour of the Luxeuil Air Force base and its former weapons storage facilities. He added that the visitors ‘will have seen [this] for themselves’.¹³ This article treats such public confidence in control over nuclear weapons as part of a puzzle, and analyses how such a statement has become possible and acceptable. Second, there is only very limited scholarship on the French experience and memory of the Crisis. In terms of historiography, most of the scholarship on the Crisis still tells the story of a bipolar confrontation and ignores the perspective and agency of actors other than the US and USSR, Cuba included.¹⁴

⁸ Daniel Kahneman describes how heuristic biases lead us to overconfidence as denial of the role of luck in *Thinking Fast and Slow* (New York: Penguin, 2011), part III.

⁹ On the responsibility of scholars focusing on nuclear weapons issues, see Benoît Pelopidas, ‘Nuclear weapons scholarship as a case of self-censorship in security studies’, *Journal of Global Security Studies*, 1:4 (2016), pp. 326–36.

¹⁰ S. Paul Kapur, ‘Revisionist ambitions, conventional capabilities and nuclear instability: Why nuclear South Asia is not like Cold War Europe’, in Scott Sagan (ed.), *Inside Nuclear South Asia* (Stanford: Stanford University Press, 2009), p. 202, quoting Russell Leng in part.

¹¹ Richard Rhodes, ‘Absolute power’, *New York Times Sunday Book Review* (21 March 2014).

¹² Beatrice Heuser, *Nuclear Mentalities? Strategies and Beliefs in Britain, France and the FRG* (London: Palgrave, 1998), p. 75.

¹³ Jean-Yves Simon-Michel, statement at the Main Committee I, 2015 NPT Review conference, available at: {http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/npt/revcon2015/statements/1May_France.pdf} accessed 16 May 2016, pp. 3–4.

¹⁴ This literature is too abundant to quote here. James Hershberg distinguishes three waves in the scholarship on the Crisis and sees the emergence of a body of work trying to analyse it as a global event. The first wave

What limited literature does exist on France is not available in English and ignores most of the primary and secondary sources analysed in this article: recently published memoirs, declassified archival material, testimonies of former policymakers and high-level military personnel, representations of the Crisis in the French media, specialised military and intellectual publications, and high school textbooks.¹⁵ Overall, little has been written on the memory of key episodes in the nuclear age in France and their impact on French thinking about nuclear safety, security and possible nuclear futures.¹⁶

In addressing the puzzle of how the discoveries about the role of luck in the outcome of the Crisis, never adequately refuted, have not been integrated in the accepted body of knowledge about nuclear history and policy, this article makes three contributions. First, the focus on new French primary sources is relevant to security studies as well as policymaking circles given frequent misconceptions about nuclear dynamics. Nuclear security studies scholars too often make unwarranted theory-driven extrapolations based on few or no primary sources, and latent assumptions about a common narrative of the danger, causes and consequences of the ‘most dangerous crisis of the nuclear age’ are widespread in Western nuclear policy circles.¹⁷ Second, and consequently, the article tackles a widespread assumption of automaticity linking the presence of nuclear weapons to a fear-induced deterrent effect. Vipin Narang labelled this as ‘an existential bias’ in the literature on deterrence, focused on the acquisition of nuclear weapons as the only meaningful threshold, a bias that Daniel Deudney locates in the tradition of

focused on the US and a second one including a Soviet and Cuban perspective. Christian Ostermann and James Hershberg (eds), ‘The global Cuban Missile Crisis at 50: New evidence from behind the Iron, Bamboo, and Sugarcane Curtains, and beyond’, *Cold War International History Project Bulletin*, 17/18 (2012), p. 7. One of the efforts from the ‘third wave’ is Renata Keller’s ‘Latin American Cuban Missile Crisis’, *Diplomatic History*, 39:2 (2015). However, publications around the 50th anniversary of the Crisis show that the ‘first wave’ remains hegemonic. Sheldon Stern, *The Cuban Missile Crisis in American Memory: Myths and Realities* (Stanford: Stanford University Press, 2012); David Coleman, *The Fourteenth Day: JFK and the Aftermath of the Cuban Missile Crisis* (New York: W. W. Norton, 2012); and David Gibson, *Talk at the Brink: Deliberation and Decision during the Cuban Missile Crisis* (Princeton: Princeton University Press, 2012). Exceptions and early calls for going beyond the first two waves are Jutta Weldes and Mark Laffey, ‘Decolonizing the Cuban Missile Crisis’, *International Studies Quarterly*, 52:3 (2008).

¹⁵ Publications in French not taken into account by the existing scholarship on the Crisis in English include: Alain Joxe, ‘La crise de Cuba: entraînement contrôlé vers la dissuasion réciproque’, *Stratégie*, 1 (summer 1964); Alain Joxe, *Socialisme et crise nucléaire* (Paris: L’Herne, 1973); Claude Delmas, *Cuba: De la révolution à la crise des fusées* (Brussels: Complexe, 2006 [orig. pub. 1982]), pp. 119–64; Gabriel Robin, *La crise de Cuba: Du mythe à l’histoire* (Paris: IFRI/Economica, 1984); Manuela Semidei, *Kennedy et la révolution cubaine: Un apprentissage politique?* (Paris: Julliard, 1972); Vincent Touze, *Missiles et décisions: Kennedy, Khrouchchev et Castro et la crise de Cuba d’octobre 1962* (Paris: André Versailles, 2012); Maurice Vaisse (ed.), *L’Europe et la crise des missiles de Cuba* (Paris: Armand Colin, 1993); Maurice Vaisse, ‘France et la crise de Cuba’, *Histoire, Economie et Société*, 13:1 (1994). In 2006, an entry on the Crisis in Claire Andrieu, Philippe Braud and Guillaume Piketty (eds), *Dictionnaire de Gaulle* (Paris: Bouquins, 2006).

¹⁶ This is compatible with the fruitful agenda of memory studies, both in IR and international history. See Patrick Finney, ‘The ubiquitous presence of the past? Collective memory and international history’, *The International History Review*, 36:3 (2014). For the connection between interpretations of the past and expectations of possible futures, see Benoît Pelopidas, ‘The oracles of proliferation’, *Nonproliferation Review*, 18:1 (2011), pp. 300–1, 308–9 and Pelopidas, ‘Nuclear weapons scholarship’.

¹⁷ On the former, see Vipin Narang, ‘The Use and Abuse of Large-n Methods in Nuclear Studies’, *Forum H-Diplo/ISSF 2* (2014), available at: {<http://issforum.org/ISSF/PDF/ISSF-Forum-2.pdf>} accessed 16 May 2016 and Benoît Pelopidas, ‘Renunciation: Reversal and rollback’, in Joseph Pilat and Nathan Busch (eds), *Routledge Handbook of Nuclear Proliferation and Policy* (London: Routledge, 2015).

'automatic deterrence statism' in the literature on nuclear weapons policy.¹⁸ Indeed, this assumption crosses the policy divide over the desirability of nuclear disarmament. On the anti-disarmament side, Susan Martin recently summarised the issue in the following terms: 'nuclear weapons cannot be stripped of their values as a strategic deterrent' since '[their] strategic deterrent capability ... stems from their material characteristics'.¹⁹ As James Lebovic aptly summarises, in this tradition, the deterrent effect does not come from rational calculation but from fear: 'the existential deterrent acquires its power from the non rational world of fear'.²⁰ On the pro-disarmament side, proponents of 'virtual nuclear deterrence' or 'weaponless deterrence' have to subscribe to an even more radical version of this idea for their concept to make sense. In their case, the weapons do not even need to be assembled in order to deter, their existence and the fear that they trigger need only exist in the mind of the deterred.²¹ In other words, whether it is for deterrence or disarmament, the mere presence of nuclear weapons (physical or virtual) is expected to inspire fear on account of their destructive capacity; such a dynamic, if granted, would clearly constrain the scope for re-evaluation of these weapons. In other words, the value of nuclear weapons would be irreducibly determined by the physics of nuclear devastation and unaffected by social and political factors. Given the position of France in the middle of the expected European battlefield for the coming nuclear war of the 1960s, if it turns out that the French experience and memory of the Crisis were largely unmarked by fear, this widely-held assumption of the automaticity of the effect of the presence of nuclear weapons will be opened to further challenge. As a consequence, the valuation of nuclear weapons will be reassessed as a socially and historically constructed process, irreducible to destructive capacity alone.²² Third, empirically, this study of the French case responds to Nick Ritchie's invitation to study 'regimes of value' of nuclear weapons beyond his foundational case study of the UK.²³ It also contributes to a growing literature on nuclear fear and atomic anxiety that has not documented the French experience in detail or consulted French-language primary sources.²⁴

The rest of this article is divided in five parts. I first review the most recent literature on the Crisis, with evidence showing that the situation was indeed extremely dangerous and that its peaceful outcome cannot be reduced to successful, fully informed crisis-management. Nuclear weapons use was avoided in the autumn of 1962 not through restraint on the part of President Kennedy and the Soviet leadership only, but as a result of decisions made by individual nuclear operators, under conditions of incomplete or incorrect information. I then identify three reasons for why this interpretation, strengthened over the past three decades and never persuasively refuted, has still not been fully incorporated in scholarship and public discourse: rhetorical practices of epistemic and practical inconsistencies that acknowledge the role of luck but do not treat it adequately and bring it back

¹⁸ Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton: Princeton University Press, 2014), p. 3; Daniel Deudney, *Bounding Power: Republican Security Theory from the Polis to the Global Village* (Princeton: Princeton University Press, 2007), p. 246.

¹⁹ Susan Martin, 'The continuing value of nuclear weapons: a structural realist analysis', *Contemporary Security Policy*, 34:1 (2013), pp. 188, 174.

²⁰ James Lebovic, *Deadly Dilemmas: Deterrence in US Nuclear Strategy* (New York: Columbia University Press, 1990), p. 193.

²¹ Contemporary proponents of virtual nuclear deterrence include Sidney Drell and Raymond Jeanloz, 'Nuclear deterrence in a world without deterrence', in George Shultz, Sidney Drell, James Goodby (eds), *Deterrence: Its Past and its Future* (Stanford: Hoover Institution Press, 2011). Pioneering works are Michael Mazarr, 'Virtual nuclear arsenals', *Survival*, 37:3 (1995) and Jonathan Schell, *The Abolition* (New York: Knopf, 1984).

²² Nick Ritchie, 'Valuing and devaluing nuclear weapons', *Contemporary Security Policy*, 34:1 (2013).

²³ *Ibid.*, p. 166.

²⁴ Spencer Weart, *The Rise of Nuclear Fear* (Harvard: Harvard University Press, 2012); Frank Sauer, *Atomic Anxiety: Deterrence, Taboo and the Non-Use of U.S. Nuclear Weapons* (London: Palgrave MacMillan, 2015).

within the realm of controllability; a disciplinary rejection of counterfactual thinking as a legitimate scholarly practice and the memory of an idiosyncratic experience of the Crisis exempt of fear. It is historically inaccurate and politically unwise, I argue, to expect that analysts' post-facto confirmation of the danger confronted at the time will entail a corresponding learning process on the part of policymakers and the public, and I conclude by outlining the implications of this point for the scholarship in history and security studies.

The latest assessment of the possibility of nuclear use during the Cuban Missile Crisis

Even though discussion over the dangers of the Crisis continues, scholarship from the last three decades has reached compelling conclusions about the role of luck in its outcome, contingent on limited information, misperceptions, the limits of safety and presidential command and control over nuclear weapons, as well as the potential of accidents. As a 2015 literature review concluded, 'had everyone stopped researching ... the crisis in the 1980s our awareness of the risks of nuclear war would be greatly diminished. If we had chosen to draw the lessons on the basis of our knowledge, we would almost certainly have drawn the wrong lessons.'²⁵

First, the limits of political leaders' knowledge about nuclear weapons during the Crisis have been exposed. For example, the Kennedy administration massively underestimated the number of Soviet troops in Cuba, ignored that they arguably could fire tactical weapons based in Cuba, and that Castro was actively pushing the Soviets to be more aggressive.²⁶ Excomm members, we now know, were not informed when the head of Strategic Air Command (SAC), General Thomas Power, took the unprecedented decision to place American nuclear forces on Defense Condition 2. One of those missiles was even launched for a test flight from Vandenberg Air Force base, in California, on 26 October 1962 at 4 am, as planned before the Crisis, without the president knowing about it.²⁷

Second, and consequently, command and control problems also have to be taken into account, so that complete presidential control cannot be taken for granted. As Scott Sagan wrote twenty years ago, in a classic account:

Many serious safety problems, which could have resulted in an accidental or unauthorized detonation or a serious provocation to the Soviet government, occurred during the crisis. None of these incidents led to inadvertent escalation or an accidental war. All of them, however, had the potential to do so. President Kennedy may well have been prudent. He did *not*, however, have unchallenged final control over U.S. nuclear weapons.²⁸

²⁵ Len Scott, 'The only thing to look forward to's the past', in Len Scott and R. Gerald Hughes, *The Cuban Missile Crisis: Critical Reappraisal* (London: Routledge, 2015), p. 225.

²⁶ On the evening of 27 October 1962, Castro thought that a US invasion of Cuba was imminent. Therefore, he sent a cable to Khrushchev asking for a Soviet nuclear strike if the United States attacked Cuba. James G. Blight and David Welch, *On the Brink: Americans and Soviets Reexamine the Cuban Missile Crisis* (New York: Hill & Wang, 1989), p. 109; Raymond Garthoff, *Reflections on the Cuban Missile Crisis* (Washington, DC: Brookings Institution Press, 1989), p. 62; Svetlana Savranskaya and Thomas Blanton, with Anna Melyakova (eds), 'New Evidence on Tactical Nuclear Weapons – 59 Days in Cuba', National Security Archive Electronic Briefing Book (11 December 2013), available at: {<http://nsarchive.gwu.edu/NSAEBB/NSAEBB449/>} accessed 23 May 2016.

²⁷ Scott Sagan, *The Limits of Safety: Organizations, Accidents and Nuclear Weapons* (Princeton: Princeton University Press, 1993), pp. 79–80.

²⁸ *Ibid.*, p. 116.

For example, during the night of 26–7 October 1962, at the height of the Crisis, an American U-2 strayed into Soviet air space over the Arctic. Soviet fighter jets scrambled to intercept the U-2 while F-102 interceptors were sent to escort it home and prevent the Soviet MIGs from freely entering US airspace. Given the circumstances, the F-102s' conventional air-to-air missiles had been replaced with nuclear-tipped ones and their pilots could decide to use nuclear weapons: 'the interceptors at Galena were armed with the nuclear Falcon air-to-air missiles and, under existing safety rules, were authorized to carry the weapons in full readiness condition in any "active air defense" mission.'²⁹ Fortunately, the spy plane turned back and the Soviet jets held their fire.³⁰ On the Soviet side, a similar problem of the delegation of the authority to use nuclear weapons occurred.³¹ Moreover, it is now well established that President Kennedy was often in a minority in opposing military action against Cuba during the 13 days of the Crisis (to follow the American periodisation).³² A usual interpretation of the Crisis assuming complete control from the two leaders might find this comforting: his ability to resist Excomm pressure shows that he would never have used force, let alone nuclear weapons, during the Crisis.³³ However, finding confidence in the president's consistency is in itself problematic. It neglects, for instance, Kennedy's severe illness, dependence on steroids, and reliance on competing medical opinions and treatments from doctors with whom he did not share what the others were prescribing him, which might have affected his judgement.³⁴

Third, the most recent research shows that weapons safety was very rudimentary at the time. For instance, in the early 1960s NATO weapon handlers pulled the arming wires out of a Mark 7 nuclear warhead while they were unloading it from a plane. 'When the wires were pulled, the arming sequence began – and if the X-Unit charged, a Mark 7 could be detonated by its radar, by its barometric switches, by its timer or by falling just a few feet from a plane and landing on

²⁹ Ibid., p. 137.

³⁰ Ibid., pp. 135–8.

³¹ Michael Dobbs, *One Minute to Midnight: Kennedy, Khrushchev, and Castro on the Brink of Nuclear War* (New York: Knopf, 2008), pp. 303ff.

³² Stern, *The Cuban Missile Crisis in American Memory*.

³³ Ibid., pp. 157, 163.

³⁴ Rose McDermott, 'The politics of presidential medical care: the case of John F. Kennedy', *Politics and Life Sciences*, 33:2 (2014), p. 85 and Rose McDermott, *Presidential Leadership, Illness and Decision Making* (Cambridge: Cambridge University Press, 2008), pp. 118–56. I am aware of the literature suggesting that Kennedy's treatment did not affect his judgement; see Robert Gilbert, *The Mortal Presidency: Illness and Anguish in the White House* (New York: Fordham University Press, 1998); Bert Park, *Ailing, Aging, Addicted: Studies in Compromised Leadership* (Lexington: University Press of Kentucky, 1993); and Robert Dallek, *John F. Kennedy: An Unfinished Life 1917–1963* (New York: Little, Brown and Company, 2003). However, these findings are contradicted by some of Kennedy's own commentary and his brother's (see McDermott, *Presidential Leadership*). Whether or not Kennedy's judgement was actually impaired or not, the point remains that betting on the consistency of a man who relies on large quantities of medication with potential psychotropic side effects and on competing treatments by doctors who do not know what the other treatments are is a very risky bet. Dr Eugene Cohen, Kennedy's long-term endocrinologist, warned JFK against the dubious practices of one of his doctors, Dr Jacobson, nicknamed Dr Feelgood, who would in 1975 be denied his authorisation to practice medicine, as early as November 1961. He wrote: 'You cannot be permitted to receive therapy from irresponsible doctors like M.J. who by forms of stimulating injections offer some temporary help to neurotic or mentally ill individuals ... this therapy conditions one's needs almost like a narcotic, [and] is not for responsible individuals who at any split second may have to decide the fate of the universe.' Quoted in Laurence Leamer, 'A Kennedy historian assesses the Dallek disclosures', *Boston Globe* (2 November 2002). Luckily, Dr Jacobson, who gave amphetamines to the president, stopped visiting the White House before the Cuban Missile Crisis, according to Rose McDermott and based on George Buckley record of the injections the President received in 1962–3. See McDermott, *Presidential Leadership*, p. 120.

a runway.³⁵ In Italy, a few months before the Crisis, Jupiter missiles were hit by lightning four times, ‘some of their thermal batteries fired, and in two of the warheads, tritium gas was released into their cores’ and may have boosted a nuclear detonation.³⁶ One of the missiles rolled down a hill.³⁷ So, beyond the command and control problem outlined above, the safety of the weapons was very problematic at the time and accidental detonation of NATO weapons could have happened during the Crisis.

Fourth, those possibilities of accidents and miscalculations could have increased the danger of the Crisis in an indirect fashion, by degrading the common knowledge of the unacceptability of nuclear war that arguably kept the two leaders away from the brink: they could have led one of the two to think that nuclear war was imminent. As a result, one can reasonably claim that the danger of war was higher than leaders thought at the time.³⁸ In 2015, Len Scott reviewed the latest developments in the scholarship about the Crisis on this point and concluded: ‘the emphasis on contingency and unacknowledged risk has accelerated with more evidence. Better understanding of the role of misperceptions, miscalculations and mistakes ... suggests that the risk of nuclear war was greater than thought by decision-makers at the time and by commentators subsequently.’³⁹ Similarly, Réachbha FitzGerald concluded a 2007 review of the literature with the idea that: ‘recent research into the operational aspects of the crisis has revealed that both the US and the Soviet leaderships had less knowledge and control over their military than they or anybody else realized.’⁴⁰ The consensus even goes beyond the literature in English and extends to the award-winning 2014 volume in Italian by Leonardo Campus, *I Sei Giorni Che Sconvolsero Il Mondo (The Six Days that Shook the World)*.⁴¹

Taken together, all those elements about the limits of controllability and predictability of the Crisis point to a role played by luck in its outcome. In 1994, Len Scott and Steve Smith already observed,

there is now ample evidence that the fact that the crisis did not lead to nuclear war was due, in large part, to good luck. In our view this is a most important finding since it undermines the claims of those who think that nuclear crises can be safely managed and that command and control systems will work as they are meant to work.⁴²

Dean Acheson proposed this interpretation as early as 1969. He attributed the outcome of the Crisis to ‘plain dumb luck’, and other key participants would come to share this view after a handful of oral history conferences conducted by James Blight and his colleagues.⁴³ Among them were

³⁵ Schlosser, *Command and Control*, p. 261, based on interviews with weapon designer Harold Agnew.

³⁶ *Ibid.*, p. 329.

³⁷ Deborah Sorrenti, *L’Italia nella Guerra fredda: La storia dei missili Jupiter 1957–1963* (Roma: Edizioni Associate, 2003), pp. 63, 79. For UK examples, see Schlosser, *Command and Control*, p. 262.

³⁸ David Holloway, ‘Pathways to nuclear war between the US and the Soviet Union in October 1962’, in Benoît Pelopidas (ed.), *Global Nuclear Vulnerability: 1962 as the Inaugural Crisis?* (book manuscript under review).

³⁹ Scott, ‘The only thing to look forward to’s the past’, pp. 241–2.

⁴⁰ Réachbha FitzGerald, ‘Historians and the Cuban Missile Crisis: the evidence-interpretation relationship as seen through differing interpretations of the Crisis settlement’, *Irish Studies in International Affairs*, 18 (2007), p. 202.

⁴¹ Leonardo Campus, *I Sei Giorni che sconvolsero il mondo: La crisi dei missili di Cuba e le sue percezioni internazionali* (Florence: Le Monnier, 2014), pp. 123–40. The book won the 2015 Friuli Storia award.

⁴² Len Scott and Steve Smith, ‘Lessons of October: Historians, political scientists, policy-makers and the Cuban Missile Crisis’, *International Affairs*, 70:4 (1994), p. 683. At the end of the 1990s, while reviewing works published during this decade, Melvyn Leffler concluded similarly that they: ‘highlight contingency and inadvertence’. Melvyn Laffer, ‘What do we “now know” ?’, *The American History Review*, 104:2 (1999), p. 501.

⁴³ Dean Acheson, ‘Dean Acheson’s version of Robert Kennedy’s version of the Cuban missile affair’, *Esquire* (February 1969), p. 76; for McNamara, see Eroll Morris, *The Fog of War* (Columbia Tristar, 2003); for

former US Secretary of Defense Robert McNamara and Nikolai S. Leonov, KGB head of Cuban Affairs at the time. This view is now supported by the scholarly evidence presented above and explicitly endorsed by Scott Sagan, who writes that: ‘there was an element of *good luck* involved in avoiding accidental war in October 1962’.⁴⁴ This cannot be reduced to good management. Twenty years later, Campbell Craig raises important objections against Sagan’s work, but still fundamentally agrees with this point.⁴⁵

In a nutshell, then, even if one cannot know for sure what would have followed the first nuclear strike, the scholarship of the last three decades shows that the Crisis was much more dangerous than leaders thought at the time. Problems of limited or false information, misperceptions, limits of safety and presidential command and control over nuclear weapons as well as accidents susceptible to create the impression that war was imminent, could all have led to inadvertent escalation. A narrative of control cannot fully account for the peaceful outcome of the Crisis and the part played by luck.

Reasserting control by practical and epistemic inconsistencies

After those discoveries, the few voices who still want to argue that the dangers of the Crisis were manageable can only do so via an inconsistency: they at first claim to acknowledge the limits of safety and controllability of nuclear weapons and the unpredictability of all pathways to nuclear war, but they then either reduce the realm of what was possible to what is measurable, or reintroduce the idea of manageability as the inevitable outcome of policy-relevant research. In the first case, which I characterise as an epistemic inconsistency, the risk frame makes it impossible to account for the limits of control and safety identified above or for the role of luck, in particular if luck is defined as an effect of unquantifiable uncertainty.⁴⁶ In the second case, which I characterise as a practical inconsistency, the role of luck and the limits of controllability will be denied in practice so that acknowledging them will not lead to a questioning of managerialism as an approach of nuclear crises on epistemological, ethical, or political grounds.⁴⁷

John Lewis Gaddis is perhaps the most explicit practitioner of the epistemic inconsistency view in English-language literature. He writes:

Just how close [we came to nuclear war], though, remains at issue. ... The tendency afterwards was to lower the *odds*. Hawks found it inconceivable that *Khrushchev* would have used nuclear weapons to defend Cuba in the face of such overwhelming American superiority.

Leonov, see Thomas S. Blanton and James G. Blight, ‘A conversation in Havana’, *Arms Control Today*, 32:9 (2002), p. 7.

⁴⁴ Sagan, *The Limits of Safety*, p. 154; also p. 155.

⁴⁵ Campbell Craig, ‘Testing Organisation Man: the Cuban Missile Crisis and *The Limits of Safety*’, *International Relations*, 26:3 (2012), p. 293; also Campbell Craig, ‘Reform or revolution: Scott Sagan’s *Limits of Safety* and its contemporary implications’, in Scott and Hughes, *The Cuban Missile Crisis*, p. 104.

⁴⁶ On the difficulties of some of this scholarship to properly account for luck, see Benoît Pelopidas, ‘We all lost the Cuban Missile Crisis’, in Scott and Hughes, *The Cuban Missile Crisis*, pp. 173ff and ‘The book that leaves nothing to chance’, unpublished manuscript.

⁴⁷ Patrick Porter’s excellent essay on ‘Taking uncertainty seriously’ shows good examples of this inconsistency between the theoretical acknowledgement of limits of knowledge of the future and planning practices which still assume the possibility of such knowledge. Patrick Porter, ‘Taking uncertainty seriously: Classical realism and national security’, *European Journal of International Security*, 1:2 (2016).

Doves insisted that whatever the numerical balance Kennedy would never have authorized an invasion of the island. ... *Calculating risks* retrospectively is almost as difficult as trying to anticipate them: in any complex system so many things can go wrong that it is difficult to know what might – or might not have. A reasonable place to start, though, is with those in command.⁴⁸

As this quote suggests, this is not only the place where Gaddis's analysis starts but also where it ends, even though he claims otherwise. In focusing on the two leaders, Gaddis renders the findings about the limits of leaders' controls about the weapons, the possibility of pre-delegation of use as well as accidental explosions due to the limits of safety, invisible. By emphasising calculable risks and probabilities, he cannot account for unquantifiable pathways to disaster, also called possibilities. Lee Clarke perfectly identified the problem when he wrote: 'We need to think in terms of chances and odds and likelihoods. But we shouldn't concentrate so much on probabilities that we forget the possibilities.'⁴⁹

A similar reduction of the unquantifiable/unknowable to the impossible as a result of an approach in terms of risk assessment can be found in Vincent Touze's otherwise remarkable study of the Crisis. Commenting on Sagan's scenarios for potential accidents, he confesses: 'it is true that the developments are very technical and one is not able to forge an opinion'.⁵⁰ As a result, he neglects them entirely as inconsequential. Instead of suspending judgement or acknowledging the limits of what can be known, he even goes so far as to treat possible accidents as only having a confirming effect on previously observed trends: 'all the incidents would only have had one single ... effect anyway: to confirm US resolve and lead the USSR to give up.'⁵¹ The game-theoretic literature on brinkmanship based on risk thinking that has taken the Crisis as a textbook case is a typical example of this inability to grasp the unbearable lightness of luck; it also treats the unquantifiable as impossible and therefore negligible.⁵² This intellectual move illustrates that, as Mary Douglas aptly wrote, 'risk is not a thing, it's a way of thinking'.⁵³ Most important, this way of thinking is oriented towards a desire for control and faith in that control.⁵⁴ This implication of risk thinking is most obvious in a research memorandum for RAND, published in 1960 in which the founding father of risk-based nuclear strategy, Thomas Schelling, writes about 'a controlled loss of control'.⁵⁵ As I have argued elsewhere, Schelling's legacy of conflating uncertainty and risk in *Strategy of Conflict* has produced the illusion that risk thinking was able to capture uncertainty and luck. The effect of this illusion has been unduly to reassert control.

⁴⁸ John Lewis Gaddis, *We Now Know: Rethinking Cold War History* (Oxford: Oxford University Press, 1997), pp. 269–70, emphasis added.

⁴⁹ Lee Clarke, *Worst Cases* (Chicago: University of Chicago Press, 2010), p. 41.

⁵⁰ Touze, *Missiles et décisions*, p. 631, my translation.

⁵¹ *Ibid.*, p. 639, my translation. Like Gaddis, he ends up focusing on leaders only. In his case, Kennedy only (p. 639).

⁵² See, for example, Robert Dodge, *Schelling's Game Theory: How to Make Decisions* (Oxford: Oxford University Press, 2012), ch. 12; Avinash Dixit, Susan Skeath, and David Reiley, *Games of Strategy* (New York: W. W. Norton, 2015), ch. 14.

⁵³ Mary Douglas, 'Risk and danger', in Mary Douglas, *Risk and Blame: Essays in Cultural Theory* (London: Routledge, 1994 [orig. pub. 1992]), p. 44.

⁵⁴ Esther Eidinow, *Luck, Fate and Fortune: Antiquity and its Legacy* (Oxford: Oxford University Press, 2011), p. 158.

⁵⁵ Thomas Schelling, 'The Role of Theory in the Study of Conflict', RAND Research Memorandum, RM-2515-PR (13 January 1960), p. 28, cited in Marc Trachtenberg, 'Strategic thinking in America 1952–1966', *Political Science Quarterly*, 104:2 (1989), p. 311.

Such epistemic inconsistency is frequently displayed in the limited literature in French on the subject. In most other cases, the role of luck is acknowledged in theory but its implications and the questions it would raise are immediately denied at the same time, via its reincorporation in a narrative of control. For instance, Marie-Hélène Labbé, who writes that ‘for a week, the world came close to apocalypse’⁵⁶ in her two-page treatment of the Crisis, notes that ‘later revelations nuanced the idealized image of a perfectly managed crisis’ and recognises the pressure Castro put on Khrushchev to be more aggressive towards the US. However, she ends up underplaying the role of luck in the outcome of the Crisis: the ‘*risk* [of use of nuclear weapons] ... was omnipresent but *controlled* during the Cold War’.⁵⁷ Similarly, the 2014 *Livre noir du nucléaire militaire* accepts that the 1962 crisis is the closest humanity came to nuclear war and that it could have been triggered without political approval, but concludes by looking at the controllable side of the problem, suggesting that the two leaders should have learned from it that small nuclear arsenals are enough to deter.⁵⁸ This conclusion obviously ignores the episodes mentioned above in which the peaceful outcome of the Crisis is not reducible to a success of deterrence, notably because it resulted from a decision taken out of false information or because the exact cause of the behaviour is not well established.

Beyond the epistemic inconsistency, scholarship can escape the unbearable lightness of luck without actually refuting it by a form of practical inconsistency. Graham Allison and Philip Zelikow’s 1999 revised edition of the classic but highly criticised *Essence of Decision* exemplifies this tendency. They ostensibly accept normal accident theory, that is, the idea that tightly coupled and interactively complex systems like nuclear weapons will inevitably lead to accidents, yet they conclude with a recommendation in terms of manageability which is at odds with the theory or would at best assume that another disaster will happen before the nuclear one, which would make it less significant.⁵⁹ They conclude that ‘the potential for dysfunctionality exists and must be managed’,⁶⁰ when the key insight of normal accident theory is that systemic accidents in complex and tightly coupled systems *cannot* be managed away. This is clear in Scott Sagan’s summary in 2004: ‘scholars in the “normal accidents theory” school have argued that organizations that exhibit both high degrees of interactive complexity and tightly coupled operations will suffer serious accidents *despite* their efforts to maintain high reliability and safety.’⁶¹

Former member of the latest two commissions on the French *Livre blanc sur la défense et la sécurité nationale* (white book on defense and national security) Bruno Tertrais displays a similar form of

⁵⁶ Marie Héléne Labbé, *Le Risque Nucléaire* (Paris: Presses de Sciences Po, 2003), p. 21, my translation.

⁵⁷ Ibid., pp. 21, 34, emphasis added. Labbé mentions the risk of accidental nuclear war, but only in relation to India and Pakistan (p. 23) and states that ‘nuclear proliferation is the primary cause of [nuclear risk]’ (p. 13).

⁵⁸ Jacques Villain, *Le livre noir du nucléaire militaire* (Paris: Fayard, 2014), pp. 96–7, 201. The exact same lesson was emphasised three decades earlier and before the discoveries about limits of safety and control during the Crisis in *L’aventure de la bombe, De Gaulle et la dissuasion nucléaire, proceedings of a conference of the Fondation Charles de Gaulle* (Paris: Plon, 1985), p. 185. An exception is Georges-Henri Soutou in his public lecture at the Académie des Sciences Morales et Politiques (6 June 2011), available at: http://www.asmp.fr/travaux/communications/2011_06_06_soutou.htm accessed 16 May 2016.

⁵⁹ This latter point is developed in Pelopidas, ‘Nuclear weapons scholarship’.

⁶⁰ Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis*, 2nd edn (New York: Longman, 1999), pp. 159–60, p. 160.

⁶¹ Scott Sagan, ‘The problem of redundancy problem: Why more nuclear security forces may produce less nuclear security’, *Risk Analysis*, 24:4 (2004), p. 937; Charles Perrow, *Normal Accidents: Leaving with High Risk Technologies* (Princeton: Princeton University Press, 1984), p. 304.

practical inconsistency. Nuclear crises have to remain manageable, so he starts his short analysis of the risk of nuclear escalation in history by deliberately setting aside the case of the Crisis. He can therefore conclude that: ‘there does not seem to be any example when nuclear weapons have been really “close” to being employed’.⁶² A similarly inconsistent reluctance to acknowledge the role of luck is observable in the writings of the late French nuclear strategist and policy adviser Thérèse Delpech. Given that she recognises Cuba as ‘the most dangerous nuclear crisis so far’ and accepts the widest variety of dangers, it is very revealing that she ends up hedging her acknowledgement of the role of luck in the outcome of the Crisis. She accepts that: ‘during the second peak [of the Crisis, on 27 October], a nuclear war was almost launched on more than one occasion’⁶³ and recognises that escalation was possible during the blockade.⁶⁴ She also recognises the lack of information and existence of misperceptions on both sides, and acknowledges that the short-range atomic weapons in Cuba could have been fired.⁶⁵ Finally, she agrees with the highest assessment of the risk of nuclear retaliation and writes that: ‘if those weapons had been fired at U.S. troops, the United States would have retaliated with nuclear weapons’.⁶⁶ Building on Nikolai Leonov’s testimony mentioned above, she concludes, reluctantly and with a caveat that: ‘Luck may have played a part as well.’⁶⁷ This is a foregone conclusion: for practical purposes, nuclear crises have to be managed, so they have to be manageable even if this conclusion depends on an inconsistent double operation of obfuscating the role of luck without being able to disprove it.⁶⁸

Reasserting control by rejecting counterfactual thinking

In this section, I focus on rejection of counterfactual thinking as an epistemological hurdle that has led French scholarship away from a full acknowledgement of the danger of the Crisis. This rejection of counterfactual thinking seems to be a disciplinary limitation of diplomatic history, which has had a particularly strong influence on scholars of the Crisis in France.

A recent debate in *Security Studies* between a diplomatic historian and his political scientist colleague illustrates the reluctance of diplomatic historians vis-à-vis counterfactual thinking. Frank Gavin,

⁶² Bruno Tertrais, ‘In Defense of Deterrence: The Relevance, Morality and Cost-Effectiveness of Nuclear Weapons’ (Paris: IFRI, Proliferation Papers, 2011), p. 27. He considers the risk of escalation as coming from the Soviet Union only: that avoids the episode of the US F-102s described above as well as the limits of safety and of command and control on the US side during the Crisis. This is interesting given that the most complete study in French makes the exact opposite assumption. Vincent Touze writes that: ‘any American attack would have led to Soviet retaliations’ and as a result focuses on Kennedy’s decisions. (Touze, *Missiles et décisions* pp. 639, my translation.)

⁶³ Thérèse Delpech, *Nuclear Deterrence in the Twenty First Century: Lessons from the Cold War for a New Era of Strategic Piracy* (Santa Monica: RAND Corporation 2012), p. 57. This study has been translated into French and published by Odile Jacob in 2013.

⁶⁴ Delpech, *Nuclear Deterrence in the Twenty First Century*, p. 69.

⁶⁵ Ibid. She had written about those issues in a previous essay: *Savage Century: Back to Barbarism* (New York: Carnegie Endowment for International Peace, 2007), pp. 171–2.

⁶⁶ Ibid., p. 69.

⁶⁷ Ibid., p. 10. Exceptions which fully recognise the features identified in the first section of this essay are Georges Le Guelte, *Histoire de la menace nucléaire* (Paris: Hatier, 1997), pp. 52–3 and Georges Le Guelte, *Les armes nucléaires, mythes et réalités* (Arles: Actes Sud, 2009), pp. 131–4.

⁶⁸ Somehow even General Lucien Poirier falls for the practical inconsistency. In his ‘elements pour une théorie de la crise’, he fully acknowledges contingency and improvisations in crisis management, warns against the dangers of systematisation and notes how issues of accidents are left aside but ends up inviting continuous progress towards a ‘science’ that has to be possible. Lucien Poirier, *Essais de stratégie théorique* (Paris: Les Sept Epees, 1982), pp. 370, 372, 374.

a trained diplomatic historian turned security studies scholar, exposes a frequent concern among diplomatic historians: ‘No matter how plausible, “what-ifs” are not part of our mission. This has led some historians to take a rather dim view of counterfactual exercises, believing they do violence to the craft of historical reconstruction.’⁶⁹ His scepticism appears clearly in his persisting sense that a historical argument without counterfactuals is possible and that some of the historians’ critiques of counterfactual analysis remain valid. He writes: ‘It is *close to* impossible to develop theories or frameworks for understanding a complex world without imagining alternative causal paths, shifting variables, and different outcomes.’⁷⁰ He concludes: “these essays convincingly remove *many* of the arguments a historian might make about dismissing counterfactual analysis entirely’.⁷¹ So even the moderate diplomatic historian ‘is not without scepticism’ vis-à-vis the use of counterfactual reasoning in a US context where it is more accepted than in France. This hostility is one of the reasons why French analysts, strongly influenced by the tradition of diplomatic history, do not adequately engage with the dangers of the Crisis. As Ned Lebow notes, the rejection of counterfactual thinking leads analysts to a historical teleology that retrospectively neglects the role of luck and the validity of other possible worlds that come with it. ‘If the Cuban missile crisis had led to war – conventional or nuclear – historians would have constructed a causal chain leading ineluctably to this outcome.’⁷²

Interestingly, in 1964 the French philosopher and strategist Pierre Hassner may have been the first to identify retrospective illusions of control in the few French accounts of the Crisis. He observed that prevailing accounts treated the actual outcome of the Crisis as necessary and were unable to grasp the Crisis itself as an event in the philosophical sense of the term. His contrast between French accounts that assume that the Crisis has settled the matter and the American accounts focusing on surprise, accidents, and pathways to escalation is still valid five decades later.⁷³

The lack of legitimacy of counterfactual reasoning and the study of other possible worlds in French IR circles is such that it is not a matter of debate.⁷⁴ This can be explained by disciplinary origins. IR in France borrowed its theoretical foundations from international law and diplomatic history, or what the founding figure Pierre Renouvin would call *histoire des relations internationales* (history of international relations) which remains based on the need for empirical and archival evidence.⁷⁵

⁶⁹ Francis J. Gavin, ‘What if? The historian and the counterfactual’, *Security Studies*, 24:3 (2015), p. 425.

⁷⁰ *Ibid.*, p. 425, emphasis added, same phrasing, p. 430.

⁷¹ *Ibid.*, p. 430.

⁷² Richard Ned Lebow, ‘Counterfactuals and security studies’, *Security Studies*, 24:3 (2015), p. 406.

⁷³ Pierre Hassner, ‘Violence, rationalité, incertitude: des tendances iréniques et apocalyptiques dans l’étude des conflits internationaux’, *Revue Française de Science Politique*, 14:6 (1964), pp. 1171–8. Interestingly, one of the other very few French exceptions to Hassner’s diagnosis is a fellow philosopher and not a diplomatic historian: Jean-Pierre Dupuy. He displays an interesting form of confidence which cannot be reduced to control and treats the possibility of accidents as conditions of possibility of a fate that prevents disaster, but acknowledges that this cannot last forever. Jean-Pierre Dupuy, foreword in Günther Anders, *Hiroshima est partout* (Paris: Seuil, 2008), pp. 27–8 and Jean-Pierre Dupuy, *Dans l’œil du cyclone* (Paris: Carnet Nords, 2009), p. 313.

⁷⁴ In French, the short edited volume by Florian Besson and Jan Synowiecki, *Ecrire l’histoire avec des ‘si’* (Paris: éditions de l’ENS, 2015); Fabrice d’Almeida and Anthony Rowley, *Et si on refaisait l’histoire* (Paris: Odile Jacob, 2011); and Quentin Deluermoz and Pierre Singarevérou, *Pour une histoire des possibles: Analyses contrefactuelles et futurs non advenus* (Paris: Seuil, 2016) are exceptions.

⁷⁵ Matthieu Chillaud, ‘IR in France: State and costs of a disciplinary variety’, *Review of International Studies*, 40:4 (2014), p. 809. In all fairness, Renouvin’s methodological intervention came out of a frustration with diplomatic explanations for the origins of the First World War. He wanted to move beyond the ‘narrow horizons’ of diplomatic history, from the relations between diplomats to the relations between peoples.

Six decades later, the heir of Renouvin as Professor of the History of International Relations at the Sorbonne wrote: ‘the historian ... keeps a specificity. A part of his or her approach is empirical. ... To that effect, the work on sources, and in particular on archives, remains at the heart of his or her craft.’⁷⁶

As suggested earlier in the debate between Gavin and Lebow, such empiricism – by treating counterfactual reasoning as an unacceptable scholarly practice – allows for a denial of the need to study the danger of the Crisis. Quite tellingly, Renouvin’s direct successor interprets the outcome of the Crisis as resulting from ‘tacit bargaining’ between the two actors.⁷⁷ As a result, political scientist Jean-Yves Haine revealed the general French attitude towards the missile crisis when, in 2004, he wrote that: ‘One has difficulty grasping the intensity of the showdown.’⁷⁸ While anglophone IR scholars have paid sustained attention to counterfactual thinking and even established ‘what-if history’ as a subfield since the 1990s, this has not at all been the case in France.⁷⁹

Even Vincent Touze, who wrote the most serious study of the Crisis available in French, ends up failing to entertain the possibility that it might have ended differently than it actually did and quickly dismisses attempts at considering possible outcomes as based on ‘hypotheticals’.⁸⁰ He does so despite being well aware of the existing scholarship in English reviewed above. His denial is justified on the grounds of disciplinary boundaries and the impossibility of testing alternative outcomes; to him counterfactual thinking is illegitimate in political science. He writes: ‘Sagan’s goal is not to contribute to the study of foreign policy. His purpose is to contribute to accidents theory. As far as our subject is concerned, his examples are all hypothetical.’⁸¹ Further, he continues: ‘One can very well conceive of nuclear accidents during the crisis in the US ... The effects they could have had belongs so much to speculation that the subject does not seem legitimate.’⁸² If done rigorously, such ‘speculation’ is called counterfactual thinking.

Reasserting control by remembering an idiosyncratic experience of the Crisis exempt of fear

Contrary to the latent assumptions of a common narrative of the danger, causes and consequences of the ‘most dangerous crisis of the nuclear age’, the French experience of the Crisis is idiosyncratically deprived of fear, and this interpretation has been relatively stable over time. The contrast with other nuclear-armed NATO allies and permanent members of Security Council is striking.

Pierre Renouvin, ‘Introduction générale’, in Pierre Renouvin (ed.), *Histoire des relations internationales, Volume I: Le Moyen-Age*, ed. François-L. Ganshof (Paris: Hachette, 1953). The next generation blamed him for not being entirely consistent with this agenda though.

⁷⁶ Robert Frank, ‘Histoire et théorie des relations internationales’, in Robert Frank (ed.), *Pour une histoire des relations internationales* (Paris: Presses universitaires de France, 2012), p. 82, my translation.

⁷⁷ Jean-Baptiste Duroselle, ‘Le marchandage tacite et la solution des conflits’, *Revue Française de Science Politique*, 14:4 (1964).

⁷⁸ Haine, *Les Etats-Unis ont-ils besoin d’alliés*, p. 203.

⁷⁹ Two landmark studies would be Philip E. Tetlock and Aaron Belkin (eds), *Counterfactual Thought Experiments in World Politics* (Princeton: Princeton University Press, 1996) and Richard Ned Lebow, *Forbidden Fruit: Counterfactuals and International Relations* (Princeton: Princeton University Press, 2010).

⁸⁰ Touze, *Missiles et décisions*, p. 120, my translation.

⁸¹ *Ibid.*, p. 120, my translation.

⁸² *Ibid.*, p. 629, my translation.

Among policymakers, President Kennedy was particularly worried about inadvertent escalation and being forced to use nuclear weapons⁸³ and British Prime Minister Harold MacMillan lost sleep over the dangers of the Crisis; on 4 November, he assessed that ‘everything was at stake...’ in the Crisis.⁸⁴ On the contrary, French President Charles De Gaulle did not voice any particular fear at the time and the French military and intelligentsia do not seem to have felt such a threat, except in press reports for a few days after Kennedy’s speech on 22 October.⁸⁵ A biographer of de Gaulle, for instance, assumes that ‘because no American missiles were based in France, ... she would not be an early target, even if it came to a nuclear exchange’,⁸⁶ which is evidence for the ‘great calmness’ of France during the Crisis.⁸⁷ Macmillan confirms this impression when he writes that, faced with the threat of imminent nuclear war, ‘the French were ... contemptuous’⁸⁸ while other British Cabinet ministers worried that war was imminent. On the evening of 28 October 1962, Quintin Hogg, Baron Hailsham of St Marylebone, Lord President of the Council, whose wife had just given birth, considered whether to baptise the child himself.⁸⁹ On the contrary, Etienne Burin des Rozières, general secretary of the Elysee Palace, makes fun of the fear of disaster in his diary, which was not meant to be made public before decades.⁹⁰

In the press and the population, a high level of fear was felt for at least a week in the US and the UK. On 2 November 1962, the *New Yorker* could record: ‘We waited for something to happen, gauging, minute by minute, in something like pain, our ignorance of what the next minute would bring, and feeling the dead weight of the conviction that no one on earth – not the president, not the Russians-knew what it would bring.’⁹¹ As Alice George summarised it, ‘for many Americans, it represented one week of imprisonment in fear ... For many Americans, the clock was ticking loudly, and like men before a firing squad, they waited and wondered whether they would feel anything before the end came.’⁹² The French

⁸³ Based on the testimony of Robert S. McNamara in James G. Blight, *The Shattered Cristal Ball* (Rowman and Littlefield, 1991), p. 8; Haine, *Les Etats-Unis ont-ils besoin d’alliés*, p. 216 and Holloway in Pelopidas, *Global Nuclear Vulnerability* (under review).

⁸⁴ Under 21 October, he writes: ‘Slept rather badly, which is unusual for me ... After 10 pm, got a message from President Kennedy, giving a short account of the situation wh. was developing between US and USSR, over Cuba’. Harold Macmillan, *The Macmillan Diaries, Volume II: Prime Minister and after 1957–1966*, ed. and introduction Peter Catterall (Basingbroke: MacMillan, 2003), p. 508. He then opens his account of the following day as ‘the first day of the World Crisis!’ (p. 508) On 24 October, he continues: ‘an anxious day [too]. For the first clash will soon begin, if the Russian ships sail on.’ (p. 511) He continued following the developments of the Crisis closely, writing on 28 October: ‘I am writing this in a state of exhaustion, after being up all Friday and Saturday nights – to about 4 am. (The difference of hours in America and England is the cause).’ p. 513.

⁸⁵ Kennedy’s speech and the Crisis were on the front page of *Le Figaro* on 23 October 1962, for a brief analysis only. On the 24th, the editorial in *Le Monde* questions the validity of American evidence, but two days later, after Sherman Kent came to show some photographs to the journalists, another piece was published to confirm the validity of this information.

⁸⁶ Bernard Ledwidge, *De Gaulle* (London: Weidenfeld and Nicolson, 1982), p. 273.

⁸⁷ These words are from Ambassador Gabriel Robin. Phone interview with Gabriel Robin, 17 July 2014. National mobilisations against the *force de frappe* did not take place before 1963. Sezin Topcu, ‘Atome, gloire et désenchantement: résister à la France atomique avant 1968’, in Céline Plessis, Sezin Topcu, and Christophe Bonneuil (eds), *Une autre histoire des ‘trente glorieuses’: Modernisation, contestations et pollutions dans la France d’après-guerre* (Paris: La découverte, 2013), p. 198.

⁸⁸ Macmillan, *The Macmillan Diaries*, pp. 514–15.

⁸⁹ Len Scott, *Macmillan, Kennedy and the Cuban Missile Crisis* (London: Palgrave, 1999), p. 1.

⁹⁰ Etienne Burin des Rozières, *Retour aux sources: 1962, l’année décisive* (Paris: Plon, 1986), p. 136.

⁹¹ ‘The talk of the town’, *New Yorker* (3 November 1962).

⁹² Alice George, *Awaiting Armageddon: How Americans Faced the Cuban Missile Crisis* (Chapel Hill, NC: The University of North Carolina Press, 2003), p. 164.

press, relying mostly on American information, generally only insisted on the risk of war following President Kennedy's speech, around 24–8 October.⁹³ Joelle Beurier's study of the year 1962 as represented in the French popular photo-journalistic outlet *Paris-Match* shows that in its pages the violence of the world was dramatised during the first half of the year but euphemised during the second, when the events this article engages with took place. Indeed, the only French source suggesting serious fears of nuclear war came from the French Embassy in Washington, which expressed in a telegram deep worries associated with not having an anti-nuclear shelter.⁹⁴

A few elements of the Crisis appeared on French television: the 8 pm news programme, for example, showed footage of the meeting between President Kennedy and Andreii Gromyko, as well as the confrontation between Adlai Stevenson and Valerian Zorin at the 26 October session of the UN Security Council.⁹⁵ On balance, however, none of this conveyed a significant level of fear or awareness of the danger in the context of the time. A study of the world news segment broadcast in French movie theaters at the time, *Regards sur le monde*, suggests this absence of fear very strongly. The Crisis does not appear until 31 October 1962 (ten days after the Kennedy speech, and more than two weeks after the beginning of American suspicions about missiles in Cuba). This three-and-a-half-minute segment emphasised control in the voiceover: 'anything was possible, then the miracle of wisdom and firmness defeated the fatality of unfolding dangers'.⁹⁶ Interestingly, the order in which news items were presented that week did not change to reflect a particularly grave danger: the sport section followed, as usual.

Similarly, the main outlet on military issues in France, the *Revue de Défense Nationale*, carried a few columns worrying about the increasing arms trade between Cuba and the Soviet Union, but prior to 1963 it published nothing in particular on the Crisis itself. This is all the more surprising as two articles published earlier in 1962 in this same journal discuss the risk of inadvertent escalation.⁹⁷

⁹³ Joelle Beurier, 'Passions françaises et culture de Guerre froide', in Philippe Buton, Olivier Buttner, and Michel Hastings (eds), *La guerre froide vue d'en bas* (Paris: CNRS éditions, 2014), pp. 213–36. The Crisis benefits from a longer article than other events including a few titles mentioning the possibility of a war but she notes that the lexicon as well as the iconography are downplaying the danger.

⁹⁴ Maurice Vaisse, foreword in Vaisse (ed.), *L'Europe et la crise des missiles de Cuba*, p. 9. This is evidence that for the French at the time, this is an Americano-Soviet crisis and that they are not involved in it. Maurice Vaisse, 'Une hirondelle ne fait pas le printemps', in Vaisse (ed.), *L'Europe et la crise des missiles de Cuba*, p. 89; interview with Maurice Vaisse, Paris, 27 August 2013. French domestic politics at the time were intense focal points, which easily distracted from considering the Crisis: Algeria, which had been a French department since 1830, had become independent a few months before, on 18 March 1962 and, on 28 October, in the middle of the Crisis, a referendum took place, deciding that for the first time the French President will be elected directly by the citizens. A failure to win this referendum would have meant the end of the Presidency of Charles de Gaulle, after four years in power under a new Constitution and only a few months after he survived an assassination attempt. As a consequence, the speech of US Secretary of Defense McNamara on the shift to flexible response has more impact on the French conversation than the Crisis. This mostly reflects a fear of conventional war in Europe and a fear centered on Berlin.

⁹⁵ Available at: {<http://www.ina.fr/video/CAF97049141/rencontre-gromyko-kennedy-video.html>}; {<http://www.ina.fr/video/CAF97027208/conseil-de-securite-video.html>}; {<http://www.ina.fr/video/CAF97027010/depart-uthant-pour-la-havane-video.html>}; accessed 7 December 2016.

⁹⁶ Available at: {<http://www.ina.fr/video/AFE86003852>} accessed 16 May 2016, my translation.

⁹⁷ Claude Delmas, 'Reflexions sur la guerre', writes that: 'the strategy of deterrence includes risks, because of the possibilities of misunderstandings, of the obsessive fear of surprise attack (an atomic "Pearl Harbour") and mutual difficulties of appreciation of intentions; finally deterrence is hard to stabilize due to the arms race (more qualitative than quantitative).' See *Revue de Défense Nationale* (July 1962), p. 1186, my translation. In the same journal, Colonel de Saint Germain wrote: 'the nuclear phase can only be an accident, or a series of

Prominent French strategist General Pierre-Marie Gallois was already convinced at the time that the situation was safe due to information he received from his contacts in NATO, who confirmed that the NATO military did not feel 'on the brink'.⁹⁸ Pierre Hassner, then a close collaborator of major French strategist Raymond Aron, emphasised the contrast between the French indifference and the British alarm and anticipation of the end of the world.⁹⁹

While many French intellectuals, in particular Albert Camus and Jean-Paul Sartre, had taken an early stance on nuclear weapons after Hiroshima, the French intelligentsia was conspicuously silent during the Crisis.¹⁰⁰ Of course, one needs to keep in mind that Camus passed away before the Crisis, in January 1960. But Sartre, André Malraux, Simone de Beauvoir, and prominent Catholic intellectual François Mauriac seem to have been completely silent about the Crisis.¹⁰¹ None of the journals published by the French intellectual elite in the fall of 1962 touched upon the problem of the Crisis: there is no mention of it in *Les temps modernes*, *Esprit*, or *La revue des deux mondes*.¹⁰² The only significant discussion appeared in *L'Humanité*, the daily newspaper of the French Communist Party, in which Sartre and Aragon published a message of support to the Cuban people in the name of *association France-Cuba* on 25 October. But this statement made no mention of the nuclear threat.¹⁰³

Given the intimate connection with Charles de Gaulle cultivated by a part of the French population, which wrote to the president to share their hopes and fears, it is also quite telling that a search

accidents, to be avoided all the more as they are more serious, more definitive. ... Our army keeps the possibility of accident in its forecasts, in its equipment, in its behaviour.' Later, he writes about 'the fragility and precariousness [that nuclear weapons'] existence give the world, placed by them at the mercy of a miscalculation among many other imponderable factors.' See *Revue de Défense Nationale*, 205 (August/September 1962), pp. 1352, 1355, my translation. Jacques Vernant wrote about it briefly in 1963 as a game: Jacques Vernant, *Le jeu diplomatique à l'âge nucléaire* (1963), pp. 862–8.

⁹⁸ Christian Malis, *Pierre Marie Gallois: Géopolitique, Histoire, Stratégie, Lausanne: L'Age d'homme* (2009).

⁹⁹ Interview with Pierre Hassner, Paris, 9 December 2013.

¹⁰⁰ For Camus: his op-ed in *Combat* (8 August 1945); Simone Debout, 'Sartre et Camus face à Hiroshima', *Esprit*, 239:1 (1998); Annie Kramer, 'À l'aube de l'âge atomique "entre l'enfer et la raison"', CISAC Honors thesis (Stanford University, 2013).

¹⁰¹ There is not one word about it in the essential *Dictionnaire André Malraux* edited by Charles-Louis Foulon, Jeanine Mossuz-Lavau, and Michael de Saint-Cheron (Paris: CNRS éditions, 2011). The volume of published letters by Simone de Beauvoir that covers the years 1940–63 does not include any letter for the year 1962. Simone de Beauvoir, *Lettres à Sartre, Volume II: 1940–1963* (Paris: NRF Gallimard, 1990). Her biographers Claude Francis and Fernande Gontier mention her visits to Havana with Sartre and comment on her impressions on Castro but do not make any mention of the missile crisis. Claude Francis and Fernande Gontier, *Simone de Beauvoir* (Paris: Perrin, 2006 [orig. pub. 1985]), pp. 300–12 and 321–2. Mauriac's Bloc note for the year 1962 does not mention the Crisis. His correspondence with fellow writer Jean Paulhan at the time interestingly mentions the OAS – Organisation of the Secret Army or Secret Armed Organization, an armed group opposed to the independence of Algeria – but not the Crisis, in the middle of a theological conversation, suggesting the primacy of domestic politics in French intellectual life at the time. François Mauriac, *D'un bloc-notes à l'autre: 1952–1969* (Paris: Bartillat, 2004) and François Mauriac and Jean Paulhan, *Correspondance 1925–1967* (Bassac: éditions Claire Paulhan, 2001), p. 345.

¹⁰² For 'Les temps modernes', I do not include October of course since there was a double issue. In 'Esprit', there is an article by Stanley Hoffmann about the Franco-American relationship but it is about the post-Second World War period.

¹⁰³ Nicolas Badalassi, *Pour Quelques Missiles de Plus* (Sarrebruck: éditions européennes, 2011), p. 140. The only writing by Sartre I found that related to issues of nuclear security was also published a year before the Crisis, at the time of the Bay of Pigs. *L'express* (20 April 1961), p. 8, quoted in Denis Bertholet, *Sartre* (Paris: Plon, 2000), p. 434. See also pp. 421–4, 430.

through the correspondence received by the Presidency of the French Republic in October 1962 from private citizens, mayors of French cities, and French clergymen does not reveal a single letter expressing fear or asking for clarification regarding the nuclear situation in Cuba.¹⁰⁴ Similarly, none of the cards of best wishes for the year 1963 which have been kept mentioned the favourable conclusion of a very risky and scary crisis.¹⁰⁵ In short, an in-depth study of French sources suggests that the French experience of the Crisis ignored the risk of nuclear war or nuclear weapons accidents and did not display the level of fear expected by security studies scholars who deduce a deterrent effect from the destructive potential of nuclear weapons.

This absence of fear persists in more recent statements by the few French public figures who have expressed an interpretation of the Crisis. In 2014, Ambassador Gabriel Robin, a French official working in the French delegation to the European Economic Community (EEC) in Brussels during the crisis, remembered words of danger but no experience of it: 'We had the feeling to be on the verge, possibly, of a nuclear danger.' However, he continued by saying that this was 'not his business' since he was in charge of economic relations and it did not disturb his daily work. He concluded: 'We were saying "this is frightening" but we did not really think about it.' He similarly remembered that Minister of Foreign Affairs Maurice Couve de Murville came to visit during the Crisis and that he 'was not distraught at all'.¹⁰⁶ This is consistent with the telegram Couve sent to all the representatives of France abroad on 18 September 1962, a month before the tensions rose, in which he wrote: 'even if the idea is constantly suggested, nowhere is it said expressly that were the USA to intervene in Cuba, the Soviet Union would retaliate by triggering a nuclear war.'¹⁰⁷

The same feeling of indifference and lack of awareness of the danger appears in the two chapters on France and NATO in the 1993 French volume on *L'Europe et la crise de Cuba* (Europe and the Cuban Crisis) edited by diplomatic historian Maurice Vaisse. Pierre Gallois writes about 'American hysteria',¹⁰⁸ adding that 'except for pacifist movements, public opinion worried only moderately'.¹⁰⁹ 'While housewives hoarded, governments only manifested a limited apprehension.'¹¹⁰ Future President Valéry Giscard d'Estaing, who as a then 36-year-old finance minister used to meet with General de Gaulle at least once or twice a week – or so he says in an interview in 2000 – goes so far

¹⁰⁴ On the intimate connection through the correspondence between De Gaulle and the French public, and how hopes and fears are the core of it, see Sudhir Hazareesingh, *Le mythe gaullien* (Paris: Gallimard, 2010), p. 119.

¹⁰⁵ Archives of the Presidency of the French Republic, Peyrefitte sur Seine, France, 5AG1/1322-1358. Of course, the sample I was able to consult was not complete. However, the presence of aggressive letters to De Gaulle blaming him for the outcome of the Algerian war suggests that no purposeful sanitation has taken place. Moreover, the presence of correspondence with private citizens and with the mayors of France which did not call for or receive an answer suggests that expressions of fears would not have been removed simply because no one replied to them. In any case, the kind of letter I was looking for would not have been either particularly offensive or easy to single out. Sudhir Hazareesingh had already noted that major events like May 1968 had generated a surprisingly small amount of correspondence from the French population. Hazareesingh, *Le mythe gaullien*, p. 119. Therefore, the silence of the available correspondence can plausibly confirm my argument.

¹⁰⁶ Interview with Robin (2014).

¹⁰⁷ Commission de publication des documents diplomatiques français, *Documents diplomatiques français 1962* tome 2, 1^{er} juillet–31 décembre (Paris: Imprimerie Nationale, 1999), p. 222.

¹⁰⁸ Pierre Marie Gallois, 'Les conséquences de la crise de Cuba sur l'alliance', in Vaisse (ed.), *L'Europe et la crise des missiles de Cuba*, p. 172.

¹⁰⁹ Ibid., p. 171, my translation.

¹¹⁰ Ibid., p. 171, my translation.

as to say that it was a time of ‘insouciance’ and ‘the happiest moment in his career’.¹¹¹ Apparently, then, he had no memory of any experience of existential fear.

Most interestingly for the argument of this article, no major French intellectual, scholar or strategist has changed his mind concerning the meaning of the Crisis over the following fifty years in spite of the compelling discoveries that have been made: the presence of nuclear weapons in Cuba that was ignored by the Kennedy administration, the debate about whether the Cubans had the authority to fire them, the close calls revealed by the oral history conferences of the 1980s and 1990s, Sagan in 1993 and Dobbs in 2008. Gabriel Robin offered a revisionist interpretation of the causes of the Crisis and its resolution but his book was ignored by scholars as well as policymakers.¹¹²

Raymond Aron did not live to see the major revelations of the 1990s, but he lent his authority to a persisting narrative of control and underestimation of the danger of the Crisis.¹¹³ In 1976, he wrote that: ‘the most spectacular episode of the Cold War, the direct showdown of two nuclear-weapons powers ... excludes by no means an interpretation consistent with the concepts of classical diplomacy.’¹¹⁴ In a 1980 television interview with Dominique Wolton and Jean-Louis Missika, Aron considered that: ‘Even the Cuban crisis of 1962 was not truly a nuclear emergency.’¹¹⁵

For most of his life, General Gallois – Aron’s intellectual adversary in the so-called ‘Great Debate’ over French nuclear strategy in the early 1960s – did not think the Crisis worth writing about. For him, the evolution and outcome of the Crisis were just additional evidence that nuclear weapons created a shared rationality – even when dealing with enemies like the Soviet Union. Gallois felt that the Crisis was not threatening because its progressive evolution led to the official alerting of strategic nuclear forces that in turn forced the two great powers to negotiate. ‘Surprise was impossible.’¹¹⁶ This has been a consistent interpretation over the years on the part of Gallois, who never considered the Crisis to be a ‘nuclear crisis’.¹¹⁷ This is the case even if his archives show

¹¹¹ Valéry Giscard d’Estaing, *Mémoire vivante: Entretien avec Agathe Fourniaud* (Paris: Flammarion, 2001), pp. 100, 111, my translation.

¹¹² The limited literature in French on the topic quotes it but does not engage with the argument. Gabriel Robin told the author that the ideas of his book were either ignored or quickly disregarded among his colleagues in the French foreign service. Interview with Robin (2014).

¹¹³ Georges-Henri Soutou, ‘Raymond Aron et la crise de Cuba’, in Vaisse (ed.), *L’Europe et la crise des missiles de Cuba*, who notes that Aron only changed his mind about theater nuclear weapons in Europe because of the Cuban Missile Crisis.

¹¹⁴ Raymond Aron, *Penser la guerre: Clausewitz, Volume II: l’âge nucléaire* (Paris, Gallimard, 1976), p. 147, my translation. Also p. 146.

¹¹⁵ Raymond Aron, *Thinking Politically*, trans. James and Marie McIntosh (London: Transaction Publishers, 1997), p. 184. In his memoirs, he treats the Crisis with no more than the reproduction of a paragraph of a letter he received from Carl Schmitt congratulating him for his analysis. Raymond Aron, *Mémoires* (Paris: Julliard, 1983), p. 456. This section does not appear in the English translation of Aron’s memoirs by George Holoch (New York: Holmes & Meier, 1990).

¹¹⁶ Pierre-Marie Gallois, ‘A quoi sert la stratégie? Entretien avec Alain-Gérard Slama à propos du livre d’Edward Luttwak *Le Paradoxe de la stratégie*’, *Le Figaro* (30 March 1989), p. 35, my translation.

¹¹⁷ Pierre Marie Gallois, ‘Risques d’escalade au niveau nucléaire’, *Revue défense nationale* (November 1980, pp. 61–70; Malis, *Pierre Marie Gallois*, p. 471; correspondence with army general Claude Le Borgne, 14 December 2013. Based on the memories of his son, Gallois never seems to have mentioned the Cuban

that he had been exposed to literature about accidental use of nuclear weapons and inadvertent nuclear war.¹¹⁸

A third essential French nuclear strategist, André Beaufre, gave a revealing interview in 1971, in which he explicitly treats nuclear war as impossible because nuclear dynamics are perfectly predictable and controllable. When asked whether he believed in the risk of a total nuclear war, he responded:

at the nuclear level, we are able to ... exactly calculate what the war will look like. We were not able to do so with much smaller means such as the pistol, the machine gun, or even the canon. Errors and dreams were allowed. Today, this [*sic*] is no longer possible. We are working with something which is infinitely calculable and we know ahead of time what the results will be. Men, because they are not crazy, will not do certain things. ... Therefore, I do not believe in the great catastrophe nor in atomic death.¹¹⁹

Surprisingly, and very tellingly for the argument of this article, this opinion is shared by a longtime opponent of nuclear weapons, General Claude Le Borgne, who described the Crisis as ‘sort of a psychodrama that the two great heads of state, then nuclear beginners, played for their own education’,¹²⁰ adding that ‘the fact that public opinion saw the world on the brink of war is another matter, a moot point’.¹²¹ In a way, this startling absence of fear during the Crisis has led both the conservative proponents of rational deterrence theory and radical anti-colonialists on the left to embrace a narrative based on the retrospective illusion of safety and control.¹²²

Even the official directives from the French Ministry of Education regarding the teaching of this episode in middle and high school perpetuate this retrospective illusion of control compatible with an experience of the event devoid of fear.¹²³ Teaching the Crisis is no longer mentioned in the official guidelines the years for which school is still mandatory. It has disappeared from the guidelines for ages 11 to 15 since 2013 and the Crisis does not appear in the list of 43 landmark dates from the third millennium BC to today that French students have to master at the end of mandatory schooling.¹²⁴ For the rest of high school, the recommendations suggest that the Crisis allows the

missile crisis in conversations with his family. This might have happened had he thought there was a serious risk of nuclear war. Interview with Philippe Gallois, 13 March 2013.

¹¹⁸ In the documentation he kept, one finds an article from *Le Monde* of 20 February 1960 with an insert on p. 2, with the title ‘Eviter une guerre déclenchée par erreur de calcul’. Archives of Pierre-Marie Gallois, 30Z 37602/1, Services Historiques de la Défense, Vincennes. I regard it as telling that Gallois chose to cut it out of a newspaper and kept it in his records.

¹¹⁹ Jean Offredo. ‘Interview with André Beaufre and Gilles Martinet, “La guerre atomique est-elle possible?”’, in Jean Offredo (ed.), *Le sens du futur* (Paris: Éditions Universitaires, 1971), p. 110, my translation.

¹²⁰ Early on, strategist Alain Joxe made the same point in his 1964 essay, ‘La crise de Cuba’.

¹²¹ Correspondence with Army General Claude Le Borgne, 14 December 2013.

¹²² See, for example, an op-ed entitled ‘La crise cubaine’ from the March–May 1963 issue of *Socialisme ou Barbarie*, pp. 80–2.

¹²³ One exception would be a textbook reviewed by Gabriel Robin in 1984, which argued that: ‘the crisis seems to bring the world on the brink of World War III’. Quoted in Robin, *La crise de Cuba*, p. 10, my translation.

¹²⁴ ‘Conseil supérieur des programmes, projets de programmes pour les cycles’, 2–4 September 2015, p. 301, available at: {http://cache.media.education.gouv.fr/file/09_-_septembre/22/9/programmes_cycles_2_3_4_469229.pdf} accessed 16 May 2016 ; ‘Bulletin Officiel 42’ (November 2013), available at: {http://cache.media.education.gouv.fr/file/42/56/7/4776_annexe1_280567.pdf} accessed 16 May 2016, pp. 7–8. Interestingly, nuclear history does not appear at all.

teacher to: ‘insist ... on the weight of deterrence and on the will of the players to avoid a direct confrontation’.¹²⁵

Overall, a study of the French experience of the Crisis and discourse about it among scholars, military officers and education officials shows an absence of fear that has been translated over time into a narrative of control. This relative fearlessness contrasts both with implicit assumptions in policy circles of a common understanding of the Crisis and with security studies scholars’ conviction in the dread induced by the destructive capability of nuclear weapons.

Conclusion

Full awareness of the limits of knowledge of and control over nuclear weapons is crucial for historical accuracy, for nuclear learning, and as a starting for a fruitful nuclear weapons policy debate that would include strategic, ethical, and political concerns.

This awareness is all the more important as overconfidence has been shown to be a cause of increased danger. Therefore, learning from the Cuban Missile Crisis is essential given that, over the last thirty years, analysts have discovered and confirmed that it was one of the most dangerous events in the history of the nuclear age, the peaceful outcome of which was partly due to luck, and that in the preceding three decades they had been overconfident in the ability of good management to explain its peaceful outcome. In order to understand the construction of such overconfidence, I have accepted the idea that learning occurred mostly at the national level and focused on the French case, in comparative perspective. I have first shown how those scholarly findings have not been adequately refuted and argued that those who do not take these elements seriously have done so via epistemological or practical inconsistencies. The rejection of counterfactual thinking as a legitimate scholarly practice is another way of rendering these findings invisible without having to refute them. Finally, I have used the French example to show that an experience and official memory of the Crisis that is not based on fear does over time fuel overconfidence in the safety, controllability, and predictability of nuclear crises. American and British elites and populations did not grasp the full extent of the dangers at the time but, unlike the French, they certainly experienced fear. These ideational and disciplinary factors would be sufficient to prevent the problem from emerging as an issue of public concern in France; they also call for responsible nuclear scholarship to address them without waiting for structural or policy change. This opens up three avenues for research.

First, social scientists cannot let Fidel Castro take the unbearable lightness of luck with him to the grave. Following from the efforts of cognitive psychologists to uncover our tendencies to deny luck retrospectively, further exploration of the politics of luck and how the distinction between risk and uncertainty (as uncontrollability and unknowability even of the boundaries of the possible) has been blurred would be a first critical step towards a reconceptualisation of nuclear controllability, a reconceptualisation that would place luck at the heart of political and ethical action, power and responsibility over time.¹²⁶ At the empirical level, this approach would involve treating the question

¹²⁵ Resources for teachers at technological and general high school, classes of 1ere (11th grade), available at: {http://cache.media.eduscol.education.fr/file/lycee/70/4/LyceesGT_Ressources_Hist_1_05_GuerreFrConflictualites_184704.pdf} my translation. The exact same instructions were there in 2010 and can be found for series L and ES in 2015. Thanks to Yannick Pincé for pointing me to those documents.

¹²⁶ Kahneman, *Thinking Fast and Slow*, part III; Porter, ‘Taking uncertainty seriously’; Brian Rathbun, ‘Uncertain about uncertainty: Understanding the multiple meanings of a crucial concept in International Relations theory’,

of ‘how close did we come to nuclear disaster’ as a starting point, and focusing on pathways towards disasters rather than patterns identified in the past and expected to bind possible futures.

Second, cases of near-nuclear use need to be requalified as events worth investigating.¹²⁷ Diplomatic historians and security studies scholars could fruitfully join forces independently of their views on the value of counterfactuals. Indeed, we need further investigations into the history of nuclear-armed states both to unearth primary documentation about the past security and safety record of nuclear arsenals and to allow for rigorous counterfactual thinking, going beyond risk thinking.¹²⁸ Comparative critical oral histories of nuclear close calls would likewise help recover the limits of control over nuclear weapons as a legitimate object of scholarly interest. Such an approach would also tackle directly the scholarly problem of uncritical reliance on accounts from former officials, while at the same time addressing the policy problems that result from misguided assumptions of a shared experience and interpretation of events like the Crisis.¹²⁹ The empirical dimension of this article is only a first step in this direction.¹³⁰ This research programme allows analysts to start working against overconfidence without waiting for structural or institutional reforms and suggests that they have a responsibility to do so.

Third, in security studies, it is crucial to reassert the socially and historically constructed process of valuation of nuclear weapons instead of perpetuating the widespread assumption that the destructive capability of nuclear weapons triggers adequate fear, which in turn initiates a learning process that is sufficient for existential deterrence to work everywhere. If the relevant French decision-makers were indeed adequately afraid at the time but did not leave any evidence of it, the contentions of this article would remain valid: that absence of evidence would only be additional evidence of the scholarly blinders entailed by a rejection of counterfactual thinking; in any case, and whatever the unspoken thoughts of decision-makers at the time, their public display of fearlessness would be consequential for future generations of leaders. Evidence of private doubts on the part of statesmen would only bring to the fore the need to reconnect nuclear weapons scholarship with democratic theorising and the issue of citizens’ right to know. Identifying the effects of rejecting counterfactual thinking and documenting the diverse experiences and memorialisations of nuclear danger as components of a process of valuation of nuclear weapons are ways to understand and counter overconfidence in their controllability. This is

International Studies Quarterly, 51 (2007); Pelopidas, ‘We all lost the Cuban Missile Crisis’ and ‘The book that leaves nothing to chance’; Pelopidas, ‘Nuclear weapons scholarship’; Katzenstein’s notion of protean power as opposed to control power is already doing this with regard to the concept of power, as a result of his efforts at tracing the blurring of uncertainty and risk; see Peter Katzenstein and Stephen Nelson, ‘Uncertainty, risk, and the financial crisis of 2008’, *International Organization*, 68:2 (2014). For an early formulation of protean power, see Katzenstein’s ‘Civilizations, Anglo-America and Balances of Practice and Power’, available at: {http://cadmus.eui.eu/bitstream/handle/1814/38386/MWP_LS_2016_01.pdf?sequence=1}.

¹²⁷ Early attempts would be Patricia Lewis, Heather Williams, Benoît Pelopidas, and Sasan Aghlani, *Too Close for Comfort: Cases of Near Nuclear Use and Options for Policy* (London: Chatham House, 2014) and Gordon Barrass, ‘Able Archer 83: What were the Soviets thinking?’, *Survival*, 58:6 (2016).

¹²⁸ This is all the more important as Article 17/L.213-2.II of the law 2008-696 about archives passed on 15 July 2008 constrains communication of archives related to nuclear history. It is available at: {https://www.legifrance.gouv.fr/affichTexteArticle.do;jsessionid=025DCB092EAA198A6EA37986D4516BC0.tpdila10v_3?idArticle=JORFARTI000019198568&cidTexte=JORFTEXT000019198529&dateTexte=29990101&categorieLien=id} accessed 27 May 2016. On this, see Maurice Vaisse, ‘L’historiographie française relative au nucléaire’, *Revue historique des armées*, 262 (2011), pp. 3–8.

¹²⁹ On the self-serving dimensions of the memories of all Excomm members, see Stern, *The Cuban Missile Crisis in American Memory*.

¹³⁰ See Pelopidas, ‘Remembering the Cuban Missile Crisis, with Humility’, European Leadership Network, 11 November 2014 and Pelopidas, *Global Nuclear Vulnerability* (under review).

crucial for policy-relevant learning because the coexistence of this *diversity* of memories with the retrospective illusions of *unanimity* and control gives an unsettling resonance to Peter Sloterdijk's claim: 'the only catastrophe that seems clear to all is the catastrophe which no one survives'.¹³¹

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¹³¹ Peter Sloterdijk, *La mobilisation infinie: Pour une critique de la cinétique politique* (Paris: Christian Bourgeois, 2000), p. 108, my translation.