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US Hegemony and the Origins of Japanese Nuclear Power: The Politics of Consent

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Abstract:

This paper deploys the Gramscian concepts of hegemony and consent in order to explore the process whereby nuclear power was brought to Japan. The core argument is that nuclear power was brought to Japan as a consequence of US hegemony. Rather than a simple manifestation of one state exerting material “power over” another, bringing nuclear power to Japan involved a series of compromises worked out within and between state and civil society in both Japan and the US. Ideologies of nationalism, imperialism and modernity underpinned the process, coalescing in post-war debates about the future trajectory of Japanese society, Japan’s Cold War alliance with the US and the role of nuclear power in both. Consent to nuclear power was secured through the generation of a psychological state in the public mind combining the fear of nuclear attack and the hope of unlimited consumption in a nuclear-fuelled post-modern world.

Key Words: United States; Japan; Atomic; Nuclear; Gramsci; Hegemony; Consent; World Order; Techno-nationalism

In the aftermath of the radiation leak at the Fukushima power plant academic work is beginning to emerge seeking to understand why it happened and with what consequences (Carpenter 2012; Kingston 2012). In seeking to contribute to this literature, this paper examines why nuclear power was introduced to Japan in the first place and how it was made possible. Unpacking the process whereby nuclear power was introduced to a country regularly beset by earthquakes and tidal waves reveals a complex politics involving not only commercial but strategic and cultural issues and dynamics as well. Understanding how these elements are connected, how they overlap and meld into one another provides an opportunity to reflect upon the theories, methods and concepts appropriate to the study of (international) political economy.

The central argument of the paper is that nuclear power was brought to Japan primarily as a consequence of US hegemony. Following Gramsci, hegemony is understood to involve both the use

of coercion and the construction of consensus within and between social groups, including states. Coercion has been a feature of the US-Japan relationship since Commodore Perry and his squadron of “black ships” first dropped anchor in Tokyo Bay in 1853 (George 1991). Perry – ‘a brilliant example and exponent of manifest destiny and imperialism’ – was carrying with him letters from President Fillmore demanding that Japan adopt an “open door” policy to international trade, sign a treaty of friendship and commerce with the United States and join the civilised world (Lehmann 1982: 136-7). In a classic manifestation of gunboat diplomacy, Perry’s squadron included two heavily armed, steam-powered frigates the like of which the Japanese had never seen before (Buruma 2004). Having impressed (but not cowed) his hosts with the power of US technology, Perry returned with an even larger squadron in the following year, and soon after Japan was formally integrated within the prevailing world order through a series of “unequal treaties” it would sign with the imperial powers.

That is not to say, however, that negotiation, persuasion and consensus building have been absent from subsequent US-Japan relations. Indeed, one of the major benefits of adopting Gramsci’s understanding of hegemony is that it draws attention to the interdependence of hegemonic relationships: the hegemon often takes great pains to satisfy the interests of the weaker party. Moreover, hegemony does not necessarily have to be applied or made manifest in direct or obvious ways but can be naturalised through everyday lived experience. Finally, hegemony is never “complete” but is rather an ongoing relationship that must be maintained in the face of apathy, ambivalence and resistance.

The consensual and coercive aspects of hegemony are much in evidence in Japan’s decision to adopt nuclear power. For military, economic and ideological reasons, social forces located in the United States sought the extension of US power through the transformation of Japan in the post-war era, and nuclear power was considered to have a vital role to play in that process. During and following the Occupation of Japan (1945-52) social forces located in the United States worked with like-minded Japanese to forge a public consensus around the adoption of nuclear power by Japan.

Within the emerging Cold War context, US public diplomacy suggested that introducing nuclear power to Japan would facilitate Japanese economic growth, promote democracy, and protect the Japanese from communist incursion and subversion. US firms played along with public pronouncements whilst quietly emphasising the commercial benefits associated with first mover advantage. From the perspective of some powerful members of Japanese society, nuclear power offered both constraints and opportunities. On one hand, Japan would be secured within the US

alliance system but distanced politically and economically from much of Asia as a consequence. Conversely, nuclear power offered a way out of the resource dependence that had partly motivated Japan's imperial misadventure, and would also symbolise Japan's long-delayed arrival in the modern age.

Nevertheless, the proposed introduction of nuclear power elicited a mixed response across Japanese society. This response ranged between eager acceptance, ambivalence, scepticism, and all-out resistance. As the veil of secrecy imposed by US censorship began to lift after 1952, Japanese people began to appreciate the central problem of nuclear power: that there is only *one* atom (Calder 1996: 65-6). The same atom that could fuel society into the future might also destroy it in an instant, or slowly poison it to death.

Establishing the means by which public uncertainty about and resistance to nuclear power was overcome is the central empirical focus of this paper. Persuading a wary Japanese public that a technology so recently used against them in war could enhance their future prosperity and safety was a major undertaking. The politics of consent to atomic power required the generation of a psychological state in the public mind combining both fear and hope. Fear was engendered by reference to the spectre of communism; hope was kindled by appeals to modernity and prosperity. In both cases a formal US-Japan alliance was portrayed as vital.

The argument is defended in three steps. The first section provides a discussion of some of the key concepts deployed within the paper, with a particular emphasis on Gramsci's understanding of consent. The second section discusses the hegemony of the United States in the post-war world order, with a particular emphasis on the role played in that process by nuclear power. It suggests that nuclear power lies at the core of overlapping narratives regarding the formation and maintenance of the identity, security and sovereignty of individuals, societies and states (and thus of the contemporary world order). This section ends with a discussion of early efforts undertaken within the United States to persuade an ambivalent American public of the benefits of nuclear power, and the campaign to "split" the civilian atom from its military counterpart. This shows not only that nuclear power forms one of the central props of US hegemony and the contemporary world order, but also that the struggle over consent with regard to the development of nuclear power had first to be won in the United States before it could be won in Japan. Similar methods of consensus-building were used in both countries.

Locating domestic developments within a context of western / US hegemony, the main case study

opens by detailing the end of Japanese isolationism in the 19th Century under the combined pressure of internal socio-economic and political change and external demands from the imperial powers. One consequence of these pressures was the development of an ideology of techno-nationalism: ‘the belief that technology is a fundamental element in national security, that it must be indigenized, diffused, and nurtured in order to make a nation rich and strong’ (Samuels 1994: x). Rather than disappearing following Japan’s military defeat in 1945, the ideology of techno-nationalism was shorn of its overt military component and transformed into ‘economic developmentalism’ or, in other words, the pursuit of high-speed economic growth (Okimoto 1989: 21-2; Gao 1997).

Mediated through US intervention, this transformation was largely accomplished between 1945 and 1960, and the remainder of the paper develops an analysis of the politics surrounding the introduction of nuclear power into Japan. In a repeat of what happened in the US and in other early adoptee countries (and echoing the broader process that sought to elide the military component of techno-nationalism), the Japanese atom was successfully split. The destructive power of the “military” atom was slowly obscured behind a veil of secrecy, while the socio-economic and cultural benefits of the “civilian” atom were publicised so widely and persistently that effective resistance to the introduction of nuclear power was overcome.

Gramsci’s concept of consent

Gramsci’s historical materialism, far from being a ‘rigid framework of absolute laws and principles’, was simply a ‘set of concepts comprising tools of analysis, a method of examining social situations’ (Femia 1981: 81). As such, he shied away from assigning concrete definitions to any particular term.² He also often assigned multiple meanings to the same concept, suggesting fluidity and contingency to some but ‘conceptual slippage’ and ‘uncertainty’ to others (Nairn 1982: 176). Thus, the meaning of consent as it appears in the *Prison Notebooks* is never entirely fixed and often overlaps with other concepts, particularly ‘common sense’ and ‘conformism’ (Femia 1981: 35-50).

In Gramsci’s own words (1971: 324), we ‘are all conformists of some conformism or other, always man-in-the-mass or collective man.’ Individuals hanker after an identity or identities that help them “fit in” with society and therefore achieve a sense of moral, ethical, spiritual or physical comfort. This type of conforming behaviour is *habitual*: (certain goals are pursued in certain ways ‘in response to external stimuli’), but might also be called ‘*pragmatic acceptance*’ of the need to ensure reciprocal conduct from others in society if one is to achieve one’s goals. Conforming behaviour can also result from ‘*fear of sanctions*’ or from a ‘degree of *conscious attachment* to, or *agreement*

with, certain core elements of society' (Femia 1981: 38-40).³

Gramsci (1971: 423) suggests that 'common sense is an ambiguous, contradictory and multiform concept'. Nevertheless, in a discussion of the relation between science, religion and common sense he (1971: 330) argues that 'where in philosophy the features of individual elaboration of thought are the most salient: in common sense on the other hand it is the diffuse, uncoordinated features of a generic form of thought common to a particular period and a particular popular environment.' If his understanding of conformism gives us a strong sense of the past (that is, pre-existing 'core elements of society') shaping the present, common sense has about it an air of the present reaching towards the future: 'Common sense creates the folklore of the future, that is as a relatively rigid phase of popular knowledge at a given place and time.' (1971: 326, footnote 6)

Gramsci asserts the necessity of active intellectual and political engagement with the world: for each individual to develop a specific conception of the world so that 'awareness and criticism' might follow (1971: 324). Lacking a sense of awareness and criticism, the individual is supine in the face of external efforts at social control and becomes a participant-victim of the prevailing 'generic form of thought' (1971: 324). A predilection towards conformism in social interaction provides the opportunity for control: for someone to actively mould the "folklore of the future".

Cherry-picking ideas from different sections of the *Prison Notebooks* carries with it certain risks, opening up in particular the perils of misinterpretation and over-determination (Showstack Sassoon 1987: 110-11). Nevertheless, Femia's (1981: 37, original emphasis) careful and sympathetic reading enables him to provide a summary definition of consent as 'a *psychological* state, involving some kind of acceptance – not necessarily explicit – of the socio-political order or of certain vital aspects of that order'.

Consent theory has a long pedigree, predominantly within the liberal tradition (Partridge 1971; Webber and Macleod 2010). Much less attention has been paid to the Marxist position, which, in its classical guise, asserts the overwhelmingly *coercive* character of the state (for example, Lenin 1965). Gramsci is an important exception to this characterisation.⁴ He developed a concept of hegemony that retained the element of coercion central to classical Marxism whilst placing far greater emphasis on what he called 'intellectual and moral leadership' (Gramsci 1971: 57). It is this understanding of the dual nature of hegemony – on manufacturing *consent* but with force always held ready – that provides the foundation upon which rests the "Gramscian challenge" (Hoffman 1984).

Gramsci (1971: 80, footnote 49) suggests that ‘the “normal” exercise of hegemony ... is characterised by the combination of force and consent, which balance each other reciprocally, without force predominating excessively over consent. Indeed, the attempt is always made to ensure that force will appear to be based on the consent of the majority.’ When consent is lost hegemony is forfeit; coercion alone is characterised as domination (Gramsci 1971: 275-6). Using this conceptualisation of hegemony Gramsci was able to engage critically with other related concepts, particularly the “state”, “civil society”, “base” and “superstructure”. As Martin (1998: 65) notes, ‘Gramsci’s intention was to reformulate these concepts in order to conceive the generation of consent as an integral component of modern “mass” politics’.

As such, in Gramsci’s work the binaries state/civil society and base/superstructure are conceived as amalgams: state-civil society, base-superstructure.⁵ While the complex content and form of these amalgams is unique to each historical case, the analytical gaze is drawn in each instance to the efforts of the bourgeoisie to entrench their existing economic advantage over subaltern classes by gaining their cultural and political support. It is this emphasis on the production of consent (rather than on Marx’s “dull compulsion of economic relations”) that brings the realm of morals, ethics, opinions and ideas (that is, the “superstructure”) to the forefront of Gramsci’s concept of hegemony (Laclau and Mouffe 2001: 67-8). The majority consent to be ruled, but even when a social group has a firm grip on the machinery of state ‘it must continue to “lead” as well.’ (Gramsci 1971: 57-8)

Accordingly, for Gramsci (1971: 244) the social struggle over control of the state is central. The state is ‘the entire complex of practical and theoretical activities with which the ruling class not only justifies and maintains its domination, but manages to win the active consent of those over whom it rules’. The precise nature of the state is expressed in the equation: ‘State = political society + civil society’ or, in other words, ‘hegemony protected by the armour of coercion’ (1971: 262-3). It is through the state that the past is trimmed and packaged, and through the state that the future is mapped and sold.

Hegemony manifests as political power through control over the formal apparatus of the state (the government, bureaucracy, judiciary and the military) linked to and supported by ‘the “private” apparatus of “hegemony” or civil society’ (Gramsci 1971: 261). This “private apparatus of hegemony” is comprised of multiple social groups of which capital is typically the most prominent although the educational work of religious groups and the mass media also play important roles. State and civil society work together ‘to raise the great mass of the population to a particular

cultural and moral level, a level ... that corresponds to the needs of the productive forces for development, and hence to the interests of the ruling classes.’ (Gramsci 1971: 258) The hegemonic class ensures that its own interests ‘can and must become the interests of the other subordinate groups’ (Gramsci 1971: 181). When this has been accomplished, base and superstructure are unified and a “historical bloc” is formed (Showstack Sassoon 1987: 119-25; Martin 1998: 81-5).

Hegemony is never complete, however, in the sense that once an historic bloc is formed all conflict and resistance disappear. Indeed, the quality or extent of hegemony (and, therefore, the resilience of the historic bloc) may occupy a wide range of possibilities from ‘expansive’ to ‘minimal’ (Femia 1981: 46-7). These varying forms of hegemony accord with variations in the quality of relations between leaders and led. Thus, consent may be either ‘*active and direct*’ or ‘*passive and indirect*’ (Buci-Glucksmann 1982: 118-22, original emphasis). In the former instance, there is a ‘real interchange’ between leaders and led, while in the latter the ‘state instrumentalizes consent and treats the masses as “masses for manoeuvre”’ (Buci-Glucksmann 1982: 118). When consent is passive and indirect, the channels through which it is generated run from “above” or from “outside”. Gramsci captures such moments through the concept of “passive revolution”.

Gramsci uses the concept of passive revolution in two ways: either as a means of describing concrete historical developments (the establishment of the Risorgimento) or to describe a political strategy through which a relatively narrow group of leaders institute ‘molecular’ – far reaching, yet incremental – change in society (Gramsci 1971: 59, 106-20; Showstack Sassoon 1982). The case study of Japan that follows below characterises the events of 1945 to 1960 as a process whereby ‘molecular’ changes in Japanese society were set in motion by a small group of politicians, bureaucrats, businessmen and military personnel. This group contained citizens of both Japan and the United States. The “mass” of Japan’s population was largely excluded from this process, as they had been excluded from previous passive revolutions: the creation of the Tokugawa *Bakufu* (1603-1867), the Meiji Restoration of 1868, and Japanese imperialism leading to the Pacific War.⁶

Recall that Femia characterises consent as ‘a *psychological* state, involving some kind of acceptance – not necessarily explicit – of the socio-political order or of certain vital aspects of that order’ (1981: 37). Following that characterisation, the task before us is twofold: first to place the Japanese decision to adopt nuclear power in its proper context and, second, to ascertain how the specific “psychological state” necessary to secure consent for nuclear power amongst the Japanese populace was achieved, and by whom. It is to these tasks the paper now turns, beginning with the hegemony of the United States, the nuclear foundations of this hegemony, and US efforts to shape

the post-war world order.

US hegemony, world order, and atomic power

The concept of world order deployed here is expansive: it moves beyond traditional conceptions of a “hierarchy of states” centred on Europe and European values, to embrace a notion of a multiplicity of actors and values at all levels from localities to civilisations. Cox (1996a: 117, footnote 2) uses the term ‘order’ to indicate ‘the way things usually happen’, thereby linking it to the Gramscian concept of hegemony. He further asserts that global hegemony is not simply an order among states, but an order within a world economy characterised by a dominant mode of production: one that penetrates into all countries and links into subordinate modes of production.⁷ World order is an expression of global hegemony and takes the form of a socio-economic, political, techno-cultural structure that shapes behaviour in ways supportive of the dominant mode of production.⁸

There is little question that the United States shaped “the way things usually happen” throughout the world in the post-war period. The various aspects of US hegemony have been studied intensively over the years.⁹ Suffice it to say here that in *absolute* terms, the US was able to deploy enormous economic, military and diplomatic power in the early post-war period. The US used this power as a platform from which to coerce, cajole and persuade allies and enemies alike to behave in accordance with its interests. These interests were encapsulated within the twin themes of liberal democracy and capitalism, and driven forward by the sense of urgency and danger inspired by the spectre of communism at home and abroad: a spectre simultaneously darkened and magnified in the popular imagination by successive US governments (Osgood 2006). In *relative* terms, however, US hegemony was limited from the outset by virtue of its competition with the Soviet Union, and US foreign policy ultimately constrained (Kolko and Kolko 1972).

The atomic bombing of Hiroshima on 6 August 1945, and of Nagasaki three days later can be viewed as an early assertion of US hegemony. From President Truman down the dominant narrative that emerged from the US chain of command regarding the atomic bombing combined logics of “no alternative” and “humanitarianism”. The narrative insisted that dropping the bombs was the only way in which the unconditional surrender of the Japanese could be guaranteed and a lengthy invasion – that might cost half a million American lives – avoided (Alperovitz 1995; Lifton and Mitchell 1996). Irrespective of the veracity of these claims (Miles 1985), the destruction wrought upon Hiroshima and Nagasaki sent a powerful message to the Japanese, to the Soviets (who declared war on Japan on 9 August), to the allied powers and, not least, to the American people

themselves. The content of the message was unequivocal: the United States possessed the most potent weapons, the most dynamic economy, and the most advanced technology that the world had ever known, and was prepared to use these both to defend a set of ideals (liberal democracy and capitalism) cherished within its borders, and to spread these same ideals throughout the globe.

Pax Americana, pax atomica

For a short time the bomb was seen in many quarters as simply a more powerful conventional weapon: one to be added to existing arsenals and used as appropriate. Only later, after the effects of radiation were more fully appreciated, did the transformative impact of atomic weapons truly sink in (Jervis 1989).¹⁰ Nevertheless, the narrative at the elite level continued to tie possession of the bomb to the maintenance of sovereignty, status within the international hierarchy of power, and a defence of values (Krige and Barth 2006; de Santa 2009).

In the atomic age the inability to harness nuclear power became a mark of irrelevance: ‘One is nuclear or one is negligible’ suggested the French Minister of Defence shortly after his country had tested its first nuclear device in 1963 (cited in Krige and Barth 2006: 5). Conversely, once harnessed, nuclear power underpinned a narrative of exceptionalism that could serve the state in any number of ways. Thus, in ‘the USSR socialism was claimed to be communism plus nuclear electricity. In America nuclear capability was a god-given safeguard to American independence. In the UK nuclear prowess became articulated with a second Elizabethan age of splendour.’ (Welsh 2000: 18) In post-Occupied France, nuclear power was seen as a means of re-establishing the “radiance” of a glorious past stretching ‘from the golden reign of Louis XIV to the “civilising mission” of the empire.’ (Hecht 2009: 2) In the developing world possession of nuclear power was regarded as an essential prerequisite of statehood (Abraham 1998).

The atomic bombing symbolised a fundamental re-ordering of the international system of states by setting a new standard against which sovereign statehood could (and, implicitly, *should*) be measured, and creating a new division in the hierarchy of power between nuclear and non-nuclear states.¹¹ This division was defended in the institutions governing the post-war world order (Cox 1996; Foot *et al.* 2003). In the case of nuclear energy, the major powers became the dominant players within the International Atomic Energy Agency (IAEA) (Scheinman 1987; Fischer 1997).

In psychological terms the impact of the atom bomb was profound. It was not so much the death and destruction caused by the Hiroshima bomb that shocked the Japanese leadership, however, but the sudden realisation ‘that US science had succeeded where Japanese science had failed.’ (Grunow

2003: 189) The psychological effects of the atomic bombing extended beyond the elite level, with newspapers, radio broadcasters and news reels around the world confirming for a global audience the inherent superiority of the US, and of western civilisation more generally. ‘*Anglo-Saxon* science has developed a new explosive 2,000 times as destructive as any known before’, gushed one American news anchor (cited in Boyer 1994: 5, emphasis added). To many Americans in particular, it seemed obvious that the financial, industrial and human resources capable of turning an incredible idea (that a bomb *could* be made) into a working, deliverable technology within a few short years were *only* to be found in the United States: a society that had shouldered its way past the “Great Powers” to take its place at the forefront of the project of modernity by virtue of its unparalleled political and economic freedoms (see Nye 1997).

As Boyer (1994: 3) puts it ‘the whole world gasped’ at the news that the US had dropped an atom bomb on Hiroshima. These were gasps of fear as much as of admiration, however, since many anticipated the spread of the technology and its use against them. Nuclear fear raised concerns not just of imminent death but also about the quality of life. ‘Would the future hold a White City or a desert of ash?’ was a question increasingly pondered as the excitement of the mushroom cloud dissipated alongside hopes for a post-sovereign world run by enlightened (nuclear) scientists.¹²

Much of the early attention focussed on the Manhattan Project: the vehicle through which the bomb was developed (Rhodes 2012). In some interpretations a triumph of American money, and of American managerial, technical and scientific expertise, for others the Manhattan Project cast a dark shadow over American society.¹³ The intense secrecy surrounding the project raised doubts concerning the quality of US democracy in general, and regarding political control of the military in particular. Over time these doubts about the true location of power within American society led to a growing concern with a variety of issues. Specific groups within American society appeared particularly vulnerable. American Indians (and all those living near testing grounds) were affected by the siting of nuclear facilities on their lands (Davis 1993; Titus 2001). Large numbers of uranium miners died early and often in considerable privation as a consequence of working in an industry lacking comprehensive regulation, oversight and insurance (Caulfield 1989). Workers in nuclear facilities faced constant danger due to the sheer complexity and toxicity of the environment in which they found themselves (Jungk 1979).

Nuclear power sparked concerns that the democratic rights and freedoms of all Americans were being subverted, that cherished American ideals such as democracy were under threat and that the destructive power of the atom threatened the very “life-world” itself (Byrne and Hoffman 1987). In

addition to a general fear of radiation, these concerns led in no small part to the emergence of the now familiar concept of a ‘military industrial complex’ with its ‘potential for the disastrous rise of misplaced power’.¹⁴

Splitting the Atom

Overcoming concerns surrounding the development of nuclear power became a key task of the state in Cold War America. The most famous of these efforts is the “Atoms for Peace” initiative launched by President Eisenhower in December 1953 (discussed below). Less familiar are earlier efforts to “domesticate” the atomic bomb through the civil defence movement (Northcutt 1999). Rooted in civilian air reconnaissance patrols conducted during World War II, the Federal Civil Defense Administration (FCDA) was created on the order of President Truman in December 1950. This was in response to the first detonation of an atomic bomb by the Soviet Union in August 1949 and the declaration of China as a communist state in October of the same year. Dovetailing with a nuclear strategy based upon a “second strike” capability, the primary purpose of civil defence was to foster attack preparedness throughout American society.

On the assumption that the only attack that could credibly threaten the existence of American society would take the form of Soviet aircraft carrying atomic bombs, the early emphasis of civil defence was on evacuation planning, and on the construction of blast and radiation shelters and their associated support network of sirens, the emergency broadcast system and so on. Funding was scarce, however, since most federal money allocated to defence was being spent on military hardware and foreign policy initiatives. The narrative of shelter construction thus became one of “self-help”, and was centred upon the idealised “nuclear family” (father-breadwinner, mother-homemaker, and their children) and idealised American values. For civil defence planners, shelter construction therefore offered two potential gains: physical defences against a putative Soviet nuclear attack, and the reinforcement of core American values and relationships (May 2008).

Accordingly, the US was flooded with messages from politicians, psychologists, advertisers and religious leaders, amongst others, exhorting the populace to build atomic shelters under houses and patios across the United States. Countless leaflets were printed and books and magazine articles published on a wide range of topics centred upon the practicalities of building and living in shelters. Private firms emerged selling products for use in shelters, as well as the shelters themselves. Television became central to the communication of these messages, liminal and subliminal, and targeted women in particular as American front lawns became the front line of the Cold War (Tichi 1991; McEnaney 2000; May 2008).

The civil defence movement consciously sought to blur the narrative dividing private from public and civil from military, just as the development of atomic bombs threatened to erase the sovereign narrative separating the domestic from the international. Such behaviour is consonant with Gramsci's definition of the state as "political society + civil society", and resonates powerfully with his observations on the nature and sources of consent in mass societies. Americans consented to nuclear power partly because of the fear instilled in them by messages they received in their homes from opinion leaders and salespeople alike. The words were simple, the message subtle. It conjured a fanatical, nuclear-armed "red menace" simultaneously threatening from abroad and infiltrating at home, and demanded an open-ended sacrifice from American families in defence of the nation. The dangers were extreme but could be overcome through hard work, vigilance, and the preservation of traditional roles and responsibilities.

As Gramsci also suggests, however, legitimate consent cannot be secured through fear alone. A major failing of the civil defence movement was that its endlessly repeated message of hope also served as a forceful reminder to Americans of the constant danger they faced: essentially, that their fallout shelters might easily become tombs. Fortunately there were others willing to see the bright side of the atom. Politicians, scientists, engineers, entrepreneurs, film-makers, comic-book writers and musicians, amongst others, envisaged a world free from labour, poverty and disease once the atom had been put to more peaceful uses (Sontag 1961; Napier 1993; Boyer 1994; Nye 1996; Weart 2012). This was a world where electricity would be "too cheap to meter", where pea-sized atomic power plants would be embedded within cars and houses, and where the atom could heal the previously incurable, improve crop yields, and enable almost instantaneous travel around the globe. Weather modification, geophysical restructuring, and space travel were made to appear almost within reach. In short, proponents of atomic power promised the final realisation of the project of modernity: unlimited consumption (Nye 1999; Welsh 2000). Inundated with hope, and overcome with desire, Americans set aside their fears and – for a short while at least – stopped worrying and tried to love the bomb (Zeman and Amundson 2004).

Japan, the United States, and the politics of consent

Most Japanese have never loved the bomb, and for good reason. The Japanese have a well-deserved reputation as admirers of technology in all its forms, however, and this includes commercial nuclear power used for peaceful purposes. This admiration is not "natural" but the result of a particular set of circumstances that gave rise to a socio-economic political and cultural structure peculiar to Japan (Garon 1997). Relationships of power within this structure, mediated by western / US hegemony,

facilitated the eventual introduction of nuclear power to Japan.

Western imperialism and the development of techno-nationalism in Japan

A lack of natural resources, a perception of “backwardness” relative to the imperial powers and a desire to “catch-up” with these same powers led to the emergence over time of a Gramscian common sense in Japan that acts as an ideational backdrop to the pursuit of both state-led development and technological solutions to socio-economic and political problems (Johnson 1982; Gluck 1985; Okimoto 1989; Samuels 1994).

Long before Commodore Perry’s arrival in 1853, members of the Japanese elite were aware of the technological sophistication of the western powers, and of the growing threat of their imperial ambitions. Opinion was divided, however, on whether Japan should maintain its policy of isolation or embrace western technology, practices and ideas that would strengthen the country whilst resisting those deemed hazardous to the existing social order (Westney 1987; Morris-Suzuki 1994; Howell 1995; Gluck 1998).

Japan at this time was divided into separate fiefs under the overall control of the Tokugawa Shogunate, which in turn ruled in the name of the emperor. In order to consolidate their power, the Tokugawa adopted a number of policies including the attempted ossification of the caste system, institutionalised hostage taking, and isolation from the outside world. Ironically, over the long term these policies both weakened the Tokugawa relative to rival clans and undermined the rigidity of the caste structure itself as the economic fate of the *samurai* slowly fell into the hands of an emergent merchant class (Sheldon 1983). Perry’s intervention, and the vacillation of the Tokugawa, was the final straw for those clans who had already decided to embrace western technology (if not other ideas such as popular democracy) and by 1868 the Tokugawa had been overthrown and the nation symbolically united through the “restoration” of the imperial line (Norman 1973; Smith 1988).

The economic power of the *samurai* may well have been weakened by the growing power of the merchants under the Tokugawa but they retained their political power and status. Johnson (1992: 85) charts the development of *samurai* power, and the evolution of elite power away from its caste origins, through a number of phases:

In the Meiji era these elites were the oligarchs who had engineered the Restoration; in the 1930s these elites were the militarists and their bureaucratic and industrial collaborators who came to power essentially through coup d’état; and in the 1950s and 1960s these elites were

economic bureaucrats of the central government who were attempting to rebuild Japan and restore self-respect to its people.

As with the US case discussed earlier, and again in line with Gramsci's thinking, there was – and remains – no hard-edged divide between state and civil society. During the Tokugawa era social divisions had become increasingly permeable as some peasants became landlords, some *samurai* became merchants and so on. Moreover, while from 1868 onwards 'the public sphere and associational life steadily expanded' simultaneously 'many of the new social forces entered into rather intimate relations with the state that impeded the emergence of a truly autonomous civil society'. (Garon 2003: 56)

These 'intimate relations' and other relationships between state and civil society gave Japanese elites the opportunity to "mould" the minds of ordinary Japanese people (Garon 1994): to attempt to fashion a new "folklore of the future" around nation-building and resistance to western domination. These efforts took many forms, one of which was to promote social sacrifice and change through campaigns and slogans. These included the admonition to "revere the emperor, expel the barbarians" heard during the 1850s and 1860s, and exhortations to pursue "civilisation and enlightenment" (that is, western-style modernisation) and build a "rich nation, strong army" developed during the Meiji era. These campaigns and slogans were clearly designed to elicit conforming behaviour through the creation of what Femia (1981: 38-40, original emphasis) calls a '*conscious attachment to, or agreement with, certain core elements of society*', the Japanese emperor in particular (Garon 1986). The impact of these campaigns resonated down through the years of militarism and ultra-nationalism and survived the intense period of "democratisation" associated with the US Occupation, albeit in modified form (Gluck 1985; Garon 2003; Samuels 1994). Moreover, power flowed in multiple directions as the formal institutions of the state sought to influence public beliefs, moods and behaviour and, in turn, were forced to respond to them (Marshall 1967; Smethurst 1974; Garon 1994, 1997, 2003). In Gramscian fashion the hegemony of Japanese elites was never simply a "top-down" process but a strategy of negotiation, compromise and leadership.

The forging of a post-war historic bloc via pacifism, anti-communism, and economic growth

Although Japan did indeed become a relatively rich nation with a strong army, it was neither rich enough nor strong enough to maintain its empire in the face of opposition from the western powers. Thus, if the atomic bombings of Hiroshima and Nagasaki were an early assertion of US hegemony, they also spelt the end of the Japanese empire and the destruction of much of the Japanese economy.

American reactions to the global economic crisis in 1947 and other events (the declaration of a People's Republic of China [PRC], the Korean War, and the defeat of the French at Dien Bien Phu) served, however, to re-position Japan in the minds of US planners. Japan's identity was transformed as a consequence. From an enemy Japan became a member of the US-led alliance against communism, a quasi "western" power in the "east", and an emerging liberal democratic polity and modern capitalist economy (Schaller 1985; Welfield 1988; Dower 1999; Swenson-Wright 2005).

In this context the introduction of nuclear technology into Japan following the domestic consequences of Hiroshima and Nagasaki becomes a little easier to accept if not to fully understand. US forces occupied Japan between 1945 and 1952 and set about re-shaping the key institutions and structures underpinning all aspects of life in Japan. The only major obstacle was the dark heart of the *ancien regime* itself: the court, the military, ultra-nationalist politicians, the bureaucracy, and the *zaibatsu*. Constituting a hegemonic class, these elements were blamed for the repression and militarism that characterised Japan's domestic and foreign policy from the 1930s until 1945.¹⁵ Accordingly, the eradication of the most aggressive elements of this hegemonic class was sought through the mechanism of the International Military Tribunal for the Far East, and the excessive power of the rest nullified through the reform programme (Minear 1971; Orr 2001). As noted, however, the exigencies of the Cold War persuaded US planners that fundamental reform of Japanese society would be unwise. In their eyes, reform would leave Japan economically incapable, defensively weak, divided politically and therefore open to communism. Thus, "reform" officially gave way to "re-construction" in 1948, enabling Japan's pre-war hegemonic class to play a role in shaping Japan's post-war future.¹⁶

The groundwork had actually begun long before the situation just outlined. Many Americans – within and beyond the formal limits of government – objected to key elements of Occupation policy from the outset. Focussing broadly on the costs to the US economy of supporting Japan for a seemingly indefinite period, these men chipped away at the reform agenda and paved the way for the 'mild housecleaning' that actually took place (Schonberger 1989: 4).

Accordingly, with the exception of the military, Japan's pre-war hegemonic class came through the Occupation chastened but relatively unscathed. Its power was embodied within the imperial court, a re-modelled bureaucracy, reactionary political parties (from 1955, The Liberal Democratic Party), and big business (the *zaibatsu*, later re-branded as *Keiretsu*) and their peak organisations – Keidanren (Japan Federation of Economic Organisations) and Nikkeiren (Japan Federation of Employers' Associations).

Nevertheless, the domestic and international arenas had changed substantially, and so had the outlook of many members of Japan's hegemonic class. A new consensus on Japan's identity and future direction was therefore required (Berger 1993; Katzenstein 1996). The international arena was dominated by the United States, but Japanese elites bent every sinew to maximise the economic benefits whilst minimising the political and military costs of alliance with the US. The domestic arena had also been significantly altered. The Emperor remained Head of State, but Japan was now a functioning democracy: with a written Constitution, a civilian government, an elected legislature and a separate judiciary. Social and economic reforms were not fully carried through, but did serve to flatten and widen Japan's social pyramid to the extent that genuine opposition and critique re-emerged. This opposition took the form of left-leaning political parties and a militant trades union movement, as well as broad-based and single-issue movements at local and regional levels.

It was in these circumstances that Japan's hegemonic class set about constructing a new historic bloc. This process was riddled with tensions, false starts, reversals and compromises (Dower 1999). The aspiration was to build a strong, independent Japan but having failed in its imperial ambitions the post-war strategy was to be more cautious. What became known as the "Yoshida Doctrine" promised a single-minded pursuit of economic growth and the partial redistribution of the fruits of that growth throughout Japanese society (Pyle 1988; Dower 1993). The price was Japanese acceptance of minimum rearmament, estrangement from communist Asia, and a strategic alliance with the US involving tacit compliance with the latter's nuclear doctrine as well as the positioning of military bases on Japanese soil (McCormack 2007: Chapter 8). For their part, the Americans offered a weak security guarantee, Japanese access to the American market (and to other markets via US sponsorship of Japan's membership of the Bretton Woods' Institutions), and a blind eye to Japanese neo-mercantilism.

From 1960, the Yoshida Doctrine provided the social stability Japan needed to launch its economic *renaissance*. Bolstered by US spending in Japan during the Korean and Vietnam wars, the "income-doubling plan" became the latest nation-building slogan under Prime Minister Ikeda. Despite this much-publicised focus on the pursuit of high-speed economic growth, by 1960 Japan had also effectively rearmed. Peace and Security Treaties were signed with the US in 1951. A national police reserve had been formed in 1950, to replace US troops who had left to fight in Korea. This was followed two years later by the creation of a maritime police force, and in 1954 by the (deliberately named) "Self-Defence Force" under the administrative control of a Defence Agency. Japanese industry recommenced arms production in 1949, but this time in support of US military operations

in the Far East (Samuels 1994; Katzenstein 1996).

The political freedoms granted by SCAP (Supreme Commander Allied Powers) during the Occupation facilitated the re-emergence of social forces opposed to the domestic and foreign policies being set in motion.¹⁷ Accordingly, when SCAP lifted the ban on trades unions there was a ‘phenomenal upsurge’ in both the number of unions and in union membership (Halliday 1975: 206). In many companies the workers forced the creation of joint labour-management councils (Gordon 1993: 379). In addition, individual unions took over their workplaces. For example, the workers at a national newspaper, the *Yomiuri*, took control of the paper from its right-wing publisher (Shoriki Matsutaro) and ran it successfully for several months.¹⁸ Such tactics were denounced by SCAP as early as May 1946 and led to the promulgation of the Labour Relations Adjustment Law: preventing policemen, firemen and prison guards from both striking and belonging to a trades union; banning strike action by government employees; giving the government the right to designate any enterprise a “public utility”; and imposing arbitration procedures and a thirty day moratorium on strikes by public utility workers (Halliday 1975: 210).

Workplace struggles carried over into the Japanese parliament, where the political dividing line was fairly clear (Kohno 1997). On one side lay conservative, reactionary political parties, the Japan Liberal Party and the Japan Progressive Party, drawing their support from rural areas and from the activities of Keidanren and Nikkeiren. Comprised mostly of the pre-war old guard, many of whom were later purged, these parties advocated little other than anti-communism and retention of the Emperor. Opposing them were the Japan Socialist Party and the Japan Communist Party supported, respectively, by the Japan Federation of Labour (*Sodomei*) and the more militant Congress of Industrial Unions (*Sanbetsu*). Previously outlawed, the Japan Communist Party placed itself in the vanguard of the struggle over Japan’s future even though its platform was very similar to the initial goals of the Occupation: removal of the Emperor system, and social and economic reform.

By late 1948, however, with the Cold War warming up and fear of communism on the rise, SCAP had come to share Yoshida’s view that an ‘excess of democracy’ had resulted in levels of political and social instability corrosive to Japan’s economic competitiveness (Moore 1997: 362). Against this background a counter-attack against organised labour began, with the Dodge Plan as its centrepiece (Schonberger 1989: Chapter 7). The Dodge Plan comprised a radical programme of austerity measures arguably designed ‘to reassert an absolute right to manage through a program of union busting, mass dismissals, red purges in public and private enterprises, and reactionary revision of Japan’s new labor laws.’ (Moore 1997: 363) Deep cuts in employment served to keep

wage demands low, while targeted dismissals undercut the powerbase of the militant trades unions. These moves effectively destroyed *Sodomei* and *Sanbetsu* and opened the way for a more compliant body, the General Council of Trade Unions (*Sohyo*), to emerge.

Violent unrest was a continual feature of the social landscape as Japanese elites attempted to manage the rebuilding and rationalisation of the economy on the one hand, and formalisation of Japan's position within the US-Japan alliance system on the other (Morris-Suzuki 1994). Producing broad public consent to this process was difficult and sometimes bloody work: involving both appeals to '*pragmatic acceptance*' of the new policies, and direct and indirect threats eliciting '*fear of sanctions*' (Femia 1981: 38-40). However, conservative elites steadily consolidated and concentrated their power. The year 1960 stands out as a pivotal moment for two reasons: the first concerning labour relations, and the second foreign policy. As coal gave way to oil, the strike at the Mitsui Miike Mines became a *cause célèbre* when one picket was killed and many others were injured by the police, army and hired thugs sent in to restore production. The dispute, and the government's response to it, resonated with personal experiences across the country as ordinary workers struggled to cope with the large-scale social change associated with economic rationalisation (Samuels 1987: 114; Hein 1990: 323-5; Price 1997).

Similarly, the signing of the revised US-Japan Security Treaty brought thousands onto the streets amid claims that it would turn Japan into a US nuclear base whilst drawing money away from services, such as education and social welfare, that were central to people's everyday lives (Hook 1996: 24; Wittner 1997: 243). With the Diet surrounded by protesters, socialist members boycotted and picketed the chamber. The Prime Minister of the day, Kishi Nobusuke, responded to the protest by having the Socialists removed *en masse* by the police and the Treaty was signed in their absence. The public uproar continued, forcing the cancellation of a celebratory visit by President Eisenhower, and only died down after Kishi resigned. Thus began the period of high-speed economic growth.

Selling the "peaceful atom"

The hostility that marked the anti-Security Treaty demonstrations of 1960 was focussed primarily by trade unions and left-leaning political parties, supported by scientists, religious organisations and the print media. Opposition coalesced around the US-Japan alliance, and around other issues such as the plight of the *hibakusha* – atomic bomb-affected persons – who adroitly drew attention to their immediate circumstances (lack of medical treatment, and the refusal of the Japanese government to compensate them for their suffering) and to the wider implications of nuclear power and radioactive

fallout. The *hibakusha* pushed to establish 6 August as World Peace Day, and succeeded in having Hiroshima named as a Peace Memorial City. Beyond the activities of the *hibakusha*, Christians and Socialists dominated Japan's nascent peace movement, developing similar strategies and international links. The Japanese Socialist Party campaigned on a platform of anti-militarism and permanent neutrality for Japan (Wittner 1993: Chapter 3; Hook 1996: Chapter 7; Akiyama 2003; Yamazaki 2009).

In the shadow of Hiroshima and Nagasaki, the public perception of nuclear *weapons* was almost entirely negative.¹⁹ This perception was strengthened by the uncertainty surrounding US nuclear strategy. Speculation that the US might use the atom bomb against the PRC or in Indochina highlighted the racial element of the debate (Jones 2010). Meanwhile, the successful testing of a Soviet atom bomb (on 24 September 1949) sparked fears of a nuclear conflict if the USSR intervened on behalf of the PRC under the terms of the Sino-Soviet Treaty. These fears were magnified in the early 1950s when the news broke that the US had tested its first thermonuclear device, and realised when Japan fell victim to its 'third nuclear attack' – the *Castle Bravo* test of 1 March 1954 (Divine 1978; Akiyama 2003; Yamazaki 2009).

With a yield of 15 megatons, *Bravo* was the largest ever US test explosion. Unfortunately, the scientific team had predicted a much lower yield and had therefore under-estimated the minimum safe distance from the Bikini Atoll test site. In consequence a Japanese fishing vessel, the *Fukuryu Maru* (Lucky Dragon), was caught in the radioactive fallout. By the time it returned to Japan on 14 March almost the entire crew of the vessel were suffering from radiation exposure (Lapp 1958).

The Bikini test itself (which obliterated three small islands), public concern over the consequences of eating potentially irradiated fish, the slow death of the *Fukuryu Maru*'s radio officer (on 23 September), and US efforts to both cover up the incident and label the fishermen as spies proved a major stimulus to the anti-nuclear movement. Following confirmation of the radiation poisoning Yaizu (the home port of the *Fukuryu Maru*) passed a resolution calling for a ban on all military use of nuclear energy. Other local governments followed suit, as did both Houses of the Diet. Meanwhile, a group of Tokyo housewives started an anti-nuclear weapons petition that received 18 million signatures in only a few months. The national petition that followed collected around 32 million signatures: more than half of Japan's registered voters (Hook 1996: 171; Akiyama 2003: 73; Yamazaki 2009: 141; Jones 2010: 181-98). In 1955, Hiroshima's Peace Memorial Museum and Nagasaki's International Cultural Hall attracted more than 330,000 visitors between them, and Hiroshima hosted the First World Conference Against Atomic and Hydrogen Bombs. In September

1955, the Japan Council Against Atomic and Hydrogen Bombs (*Gensuikyo*) was formed, and would subsequently become one of Japan's most important mass movements (Wittner 1997: 9).

Arrayed against this passionate yet often divided opposition were hegemonic forces located in Japan *and* the US: politicians, bureaucrats, big business, and members of the defence establishments and scientific communities who would gain from the adoption of nuclear power. These forces were also often divided along strategic and tactical lines but were in the main able to work together in pursuit of the common goal. Individual Japanese and US firms stood to make substantial financial gains through Japanese reconstruction in general and from nuclear power in particular. Building upon pre-war relationships, four out of the five competing Japanese nuclear groups had links with US firms by 1956 (Samuels 1987: 237-8; Morris-Suzuki 1994: 111-13). Meanwhile, individual Japanese ministries fought over the jobs, funding and prestige associated with the overall project, and politicians and scientists vied with one another for contracts and research funding tied to their particular bailiwicks (Samuels 1987: Chapter 6). According to a US State Department Report of 1957, elements of the Japanese defence community were also intent on 'ultimately equipping Japan's forces with nuclear weapons' on the assumption that 'nuclear weapons would be a standard condition of future warfare' (cited in Swenson-Wright 2005: 143).

Although they were not always successful in their efforts, there is little question that the "common sense" of state-led development and the efficacy of technological solutions to social problems continued to inform the choices made by Japanese elites in post-war Japan. For example, reflecting on the fact that he had been a distant witness to the Hiroshima bombing, one of the most important figures in Japan's nuclear history, Nakasone Yasuhiro, declared that the image of the mushroom cloud immediately 'lit a fire within me to develop atomic energy.' (cited in Low 2005: 40) Nakasone went on to promote nuclear power unstintingly throughout his career: as Minister for Science, as head of the Defence Agency, as Minister for International Trade and Industry and – as a 'veto player' (Hyams 2011) – Prime Minister between 1982 and 1987.

Like Nakasone, Shoriki Matsutarō, another 'veto player' (Hyams 2011) in the development of Japan's nuclear industry, was convinced of the general efficacy of technology and of the absolute necessity of introducing nuclear power to Japan. Born in 1885, Shoriki joined the metropolitan police force in 1913 and developed a reputation as a nationalist and anti-communist. By the mid-1930s Shoriki had shifted career, transforming a struggling Tokyo newspaper, the *Yomiuri*, into a major success. With the largest circulation of any newspaper in the world, the *Yomiuri* became a mouthpiece for government propaganda during the war, and as a consequence Shoriki was indicted

as a war criminal and imprisoned.²⁰ In 1952, shortly after the end of the US Occupation, Shoriki traded on his connections and was granted the first commercial television licence (Partner 1999).

In April 1955 Shoriki was instrumental in founding the Council for the Peaceful Uses of Atomic Energy: a business-backed organisation ‘composed of nearly one hundred businessmen, scientists, and molders (sic) of opinion – the real leaders of the nation’ (Yanaga 1968: 184). This organisation was determined to keep the development of Japanese nuclear power in the hands of business rather than (as Nakasone proposed) in the hands of government. Combining fatalism with showmanship, and perhaps reflecting the optimistic noises coming out of the US, Shoriki declared: ‘Whether we like it or not the world has already plunged into the atomic age. It has now become clear that nuclear energy, which was once used against us as a terrible weapon of destruction, can now be used as a mighty power to banish wars from the earth and liberate humanity from poverty and disease.’ (cited in Yanaga 1968: 184-5) Shoriki went on to become Chair of the Atomic Energy Commission (launched in January 1956), Head of the Science and Technology Agency (May 1956, following signature of the US-Japan Technology Agreement), and to launch the Japan Atomic Industrial Forum (March 1956).

Japan’s post-war hegemonic class, including but by no means limited to Nakasone and Shoriki, sought to limit the association between the “military” and the “civilian” atoms in a variety of ways. The first method was to dissemble in public. Thus, from Yoshida onwards, Japan’s leaders denied that nuclear weapons had been brought into Japan. They protested against nuclear weapons testing and decried their (alleged) deployment by US forces in and around Japan. Nevertheless, in private they quietly reassured the Americans of their support for nuclear deterrence, and entered into secret agreements allowing deployment within Japan’s sovereign space (Swenson-Wright 2005; McCormack 2007; Yamazaki 2009). The second method was to undercut and discredit the anti-nuclear movement. Successive governments undercut the movement by setting informal, non-binding limits on defence spending, and on the development and introduction of nuclear weapons. They discredited the movement by developing a “nuclear allergy” metaphor portraying the opposition as either ill or ignorant (Hook 1996; Dusinger and Aldrich 2011). Finally, successive governments, politicians from across the spectrum, scientists, and Japanese business and media interests consistently and vocally supported the development of a civilian-controlled, commercial nuclear industry (Yanaga 1968: Chapter 7; Samuels 1987: Chapter 6; Hein 1990: 281-4; Hyams 2011).

In promoting the benefits of a commercial nuclear industry, Japan’s hegemonic class found itself

pushing on an already open door. Public acceptance of and consent to nuclear power used for *peaceful* purposes was in part a response to the relentless campaigning of individuals and groups in its favour, as discussed above. It was also, however, part of the “common sense” of Japanese techno-nationalism, and a result of the development of an ideology of “Japan as victim” of both militarism and nuclear weapons (Orr 2001; Low 2003). Finally, it was an outgrowth of the emergence of a mass consumption society in Japan. Just like their American counterparts, the aspirations of Japan’s urban-dwellers and the social norms which guided their choices were fuelled by advertising on the trains they took to work, by the weekly magazines and comics they read, by the goods on display in department stores, by the advertising and movies they were exposed to at the cinema, and by exhibitions sponsored both privately and by the government (Katzenstein 1996: 38-42; Low 2003a).²¹ Most importantly, following the introduction of television in 1953, Japan’s consumers were entranced by the lifestyles they were exposed to through that medium (Ivy 1993; Partner 1999; Yoshimi 1999).

This ‘education in the possibilities of consumption’ (Francks 2009: 160) was no accident. At the time, television broadcasting was hopelessly uneconomic since most Japanese could not afford to own a television.²² Television was brought to Japan nevertheless, because men like Shoriki saw it primarily as a means to attain influence, and only secondarily as a source of profit. In the early days, a more important consideration for Shoriki and his American backers ‘was the power of television as a weapon against communism’ (Partner 1999: 105). Indeed, in a speech entitled ‘The Vision of America’ delivered before the US Senate three weeks before the outbreak of the Korean War, a staunch anti-communist Senator Karl Mundt had argued for the speedy introduction of television to Japan. Labelling television a ‘see bomb’ he claimed that the medium ‘can put in motion chain reactions for constructive good which will rival in their magnitude the destructive consequences of the chain reaction of the A-bomb.’ (cited in Partner 1999: 80)

Atoms for Peace

The final element cementing Japanese consent to nuclear power was US power and interest. Eisenhower’s “Atoms for Peace” speech to the United Nations on 8 December 1953 ‘touched off a full-scale nuclear fever in Japan’ (Samuels 1987: 234).²³ Ostensibly an attempt by the US to encourage the peaceful use of atomic energy and its controlled diffusion through the creation of a “uranium bank” (the IAEA), the campaign was also a thinly-veiled effort to maintain the technology gap between the US and potential new entrants by subjecting them to a regime of monitoring and surveillance (Pilat *et al.* 1985; Medhurst 1997; Krige 2006).

A part of Eisenhower's "New Look" strategy, the Atoms for Peace campaign was designed to meet a number of needs. It would facilitate continued defence spending and prepare the public (in the US and elsewhere) for a prolonged struggle against the Soviet Union. More specifically, it would promote public acceptance of the policy of "massive retaliation", and prepare the way for the "nuclearisation" of NATO (Bobbitt *et al.* 1989). Atoms for Peace would also enable the creation of a commercial market for the production and consumption of nuclear power (first in the US itself, and subsequently in allied markets).²⁴ In what one scholar has dubbed 'a form of industrial imperialism', business leaders planned to boost future exports by embedding American technology in foreign countries (Medhurst 1997: 587). Finally, the campaign would contribute to the propaganda war against the Soviets by countering the latter's claim that the US was only interested in nuclear weapons. Faced with Soviet propaganda victories won with promises to supply nuclear technology in support of Third World development, the US government responded by launching a diffusion programme of its own. As well as attracting the interest of power-starved developing countries, US planners hoped that 'atomic power would serve as a counterweight to the Soviet model of development' by offering progress through 'the ingenuity of American capitalism' (Osgood 2006: 169). This was the motivation behind US offers to supply Japan with nuclear technology and enriched uranium, culminating in the signing of the United States Japan Atomic Energy Agreement on 14 November 1955.

The Atoms for Peace initiative had the full weight of the US government behind it. At the domestic level, the State Department and FCDA produced half a million pamphlets containing the text of Eisenhower's speech accompanied by photographs and illustrated drawings, and 5 million leaflets for distribution by volunteers. Federal, state and local agencies were part of a network that reached governors, mayors and civil defence leaders. Specific groups targeted included those thought most vulnerable to communist propaganda: teachers, agricultural workers and labour organisations. The speech was discussed on major news shows on radio and television, and seen in newspapers and documentary films (Medhurst 1997; Osgood 2006).

At the international level the US Information Agency (USIA, created in August 1953) distributed Eisenhower's speech around the world. Major newspapers in twenty-five countries published the speech in full. The USIA also distributed more than 16 million posters and booklets advertising the speech through its 217 posts abroad, and the Voice of America broadcast it live to thirty-five countries. USIA worked closely with American firms and non-governmental organisations operating worldwide, overseeing the distribution of around 400,000 leaflets. Westinghouse Electric Company, a firm with plans to deliver atomic power to Japan, attached a specially written cover

note to the 35,000 leaflets it distributed in more than 125 countries (Osgood 2006: 162-3).

The USIA kept interest in the speech alive through a deluge of press releases celebrating the positive reaction generated worldwide. Following the disastrous publicity surrounding the irradiation of the *Fukuryu Maru*, the USIA began to place particular emphasis on the peaceful application of nuclear technology. A series of twenty-six television programmes entitled *The Magic of the Atom* was commissioned, with individual episodes focussing on a particular aspect: *The Atom and Agriculture*, *The Atom and Industry*, *The Atomic City* and so on. The USIA rolled out travelling exhibits and sent them to major cities in Europe, Africa and Asia.

These exhibits were designed to supplant the fearsome image of the mushroom cloud and replace it in the public imagination with peaceful images of medical and biochemical research, agricultural and industrial production and electrical power generation. They featured illustrations of nuclear power plants and the process of power generation, working models of Geiger counters, and colourful displays depicting the “peaceful atom” at work. All of the exhibits showed a film produced by General Electric: another firm with ambitions to become a nuclear supplier to Japan. The film, *A Is for Atom*, presented the peaceful use of atomic power in a manner understandable to the lay viewer. By underplaying questions of cost, safety, waste disposal and its military origins, the implicit message was clear: nuclear power was safe, cheap, innovative, liberating and, above all, American.

The Japan exhibition spent six weeks in Tokyo before moving on to a further six Japanese cities. The Kyoto exhibit received more than 150,000 visitors (Osgood 2006: 176). In Hiroshima, the one millionth Japanese visitor toured the exhibition while it was housed in the Peace Memorial Museum. Co-sponsored by the US government, Shoriki (via the *Yomiuri*) and other commercial organisations, the exhibition struck a responsive chord with the Japanese public. Schoolchildren marvelled at the artists’ impressions of nuclear powered aeroplanes, ships and trains. Scientists were amazed by the application of nuclear power in a wide range of fields. Women were reportedly dazzled as much by the fashionably dressed exhibition guides as they were by the labour-saving potential of the new household devices on display (Zwigenberg 2012).

Despite the glitz and glamour of the exhibition, voices continued to be raised in Japan against nuclear weapons in particular and against nuclear power more generally. It took a number of years before the argument in favour of the peaceful use of nuclear power seemed to have been won. Nevertheless, the Atoms for Peace exhibition is viewed as a major turning point, successfully

pressing home the argument that a distinction could be made between the civilian and military uses of nuclear technology. This was certainly the view of US officials, who suggested that by 1956 ‘atom hysteria was almost eliminated’ and ‘Japanese opinion was brought to popular acceptance of the peaceful uses of atomic energy’. Moreover, substantial progress had been made ‘in improving Japanese opinion towards the U.S. and thereby taking some of the pressure off the Japanese Government on account of its pro-American policies’.²⁵

Conclusion

It would be an act of hubris to suggest that Gramsci’s historical materialism can fully solve the puzzle of the complex politics of Japanese consent to nuclear power. Nevertheless, Stuart Hall (1987: 16) is correct to suggest that what is important about Gramsci’s work is its delivery of the ‘means to ask the right kind of questions’. In this case the “right kind of questions” are those that seek to move beyond a simple “power over” model that equates outcomes with disparities of material and / or institutional power between states, or even between state and civil society. There is no doubt that US power and interest played a major role in bringing nuclear power to Japan but that is far from the end of the story.

Deploying Gramsci’s conceptual armamentarium, with an emphasis on the concepts of “hegemony” and “consent” in particular, invites an historical analysis that looks not only further back in time but further afield. Looking outwards from Japanese shores elite assessments of the world order of the late 19th and early 20th centuries located Japan in an inferior position relative to the western imperial powers. Their response to the sense of vulnerability this assessment provoked was to mobilise the country in pursuit of a “rich nation” and a “strong army”. Based again on an appraisal of the nature and sources of western power the method chosen to swiftly bootstrap the Japanese economy was “civilisation and enlightenment”: in this case meaning the importation of western technology and its indigenisation in ways appropriate to Japan’s existing socio-economic structure.

The tragic consequences of these decisions led to the atomic bombings of 1945. The policy of “revere the emperor, expel the barbarians” fostered radical nationalism and a continuation of traditional practices of authoritarian rule. Uncertainty regarding the location of legitimate political authority within the Japanese state emboldened radical nationalists to perform acts of murder, sedition and war mongering in the emperor’s name. Through the late 1920s and 1930s consent was instrumentalised by the state and the Japanese people increasingly treated as “masses for manoeuvre”. Lacking access to the natural resources required to compete with the western powers, and facing opposition to its early imperial endeavours, the mobilised Japanese nation eventually

confronted a force it could not defeat. Unable to win, and too ashamed to surrender, Japan suffered both the horror of the atomic bombings and the ignominy of occupation.

In such circumstances Japanese consent to nuclear power appears at first to be a truly remarkable turn of events. How it was that a relatively small island nation prone to earthquakes and tidal waves (and situated next to two hostile, nuclear-armed countries) came to adopt – with almost unmatched enthusiasm – a technology both politically provocative and vulnerable to seismic activity, human failings, and physical attack is a truly complex puzzle. The material power of the US was clearly a factor, but the lines of force ran both ways. The exigencies of the Cold War enabled Japanese elites to craft an alliance with the US that limited Japan's exposure to military attack whilst maximising its opportunity to pursue economic growth. The price paid for this was partial rearmament, compliance with US nuclear strategy and the domestic promotion of a form of pacifism tailored to minimise the cognitive dissonance created by military support for the US on the one hand and Japan's "Peace Constitution" on the other. As Gramsci suggests, hegemony is an open-ended process of negotiation and compromise between the hegemon and those it subordinates.

US material power notwithstanding, with its emphasis on the realm of ideas a Gramscian analysis reveals that the background conditions favouring early nuclear adoption were already present. Western hegemony had stimulated and entrenched within Japan a long-standing belief in the power of technology to solve pressing socio-economic problems. US hegemony in the post-war era served not only to confirm that belief but to create a space in which Japanese techno-nationalism could continue to flourish along avowedly commercial lines.

American and Japanese people, operating within and beyond the formal limits of the state as conventionally conceived, worked both together and separately to achieve a commercial nuclear future for Japan. The lines of force ran again in both directions, with the Japanese bureaucracy reluctantly ceding responsibility for the development of nuclear power to commercial firms whilst the government socialised the start-up and environmental costs. Whilst often in competition with one another, public officials, opinion leaders, commercial firms, film-makers and comic-book writers alike deployed their money, organisational capacity and technical skills in pursuit of the shared goal of bringing nuclear power to Japan.

Finally, deploying Gramsci's concept of consent facilitates an appreciation of the means by which the reservations felt by many people, in Japan and elsewhere, regarding the adoption of an unfamiliar technology whose sole purpose appeared to be destruction were overcome. In both the

US and Japan consent to nuclear power was achieved through the evocation of a fearful response to the “communist threat” and an ecstatic response to the transformative possibilities of commercial nuclear power in general and the promise of unlimited consumption in particular. This “moulding” of minds was accomplished through violence or the threat of violence when necessary or through a process of negotiation and compromise where possible. On one hand this process featured conventional diplomacy and diplomatic methods such as propaganda. On the other hand the process engaged emerging technologies such as television, and the liminal and subliminal techniques of advertising and myth creation.

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Notes:

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² As is widely recognised, this was also a consequence of Gramsci's fears concerning censorship, the privations of his confinement, and his deteriorating health.

³ These sources of conforming behavior always overlap, a point made at length in Partridge (1971).

⁴ For a variety of opinions see Haugaard and Lentner (2006).

⁵ Coercion-consensus is also an amalgam, of course. The *legitimate* use of coercion always takes place within a broad context of consent. See Buci-Glucksmann (1982).

⁶ 'The destruction of Tokugawa feudalism *from above* made possible the curbing of any insurrectionary attempts by the people, particularly the peasantry and city poor, to extend the anti-feudal movement by action *from below*.' (Norman 1973: 8, original emphasis). See also Arnason (1988), Dower (1999), and Allinson and Anievas (2010).

⁷ In Gramsci's own words: 'Every relationship of "hegemony" is necessarily an educational relationship and occurs not only within a nation, between the various forces of which the nation is composed, but in the international and world-wide field, between complexes of national and continental civilisations' (1971: 350).

⁸ There is a long-standing debate surrounding the application of Gramsci's concepts at any other time, place or scale than that of Italy in the period surrounding the Risorgimento. At the time of writing, the latest addition to this literature is Ives and Short (2013). Stuart Hall (1987: 16) suggests that 'Gramsci gives us, not the tools to solve the puzzle, but the means with which to ask the right kinds of questions'. In this paper the concept of world order is included in order to "ask the right kinds of questions": to account for the general role of the United States in shaping the events of the post-war era, and the specific role the US played in the introduction of nuclear power into Japan.

⁹ For a survey of the literature up to the millennium see Cox (2001). On the societal roots of US hegemony see Cox (1987) and Rupert (1995).

¹⁰ By the mid-1960s, the development of thermonuclear bombs, intercontinental bombers and missile technology had served to heighten perceptions of vulnerability to nuclear attack. For a discussion of the cultural impact of these developments in the US see Nye (1996, Chapter 9).

¹¹ This is a division that has been questioned in recent scholarship (Hecht 2012).

¹² The quote is from Weart (2012: 11). On the role of scientists in the nuclear age see, amongst others, Gilpin (1962), and Balogh (1991). On the role of nuclear engineers see Johnston (2012).

¹³ The Manhattan Project was in fact a multinational effort featuring the participation of Canadian and European scientists in addition to their US colleagues. That its popular history has become an exclusively American venture is itself a testament to US hegemony. See Rhodes (2012), and Martinez and Byrne (1996).

¹⁴ Farewell address to the American people, President Dwight D. Eisenhower, 17 January 1961. Cited in Prins (1983: 134).

¹⁵ For a discussion of the tensions between anti-determinism and teleology in Gramsci's social theory see Martin (1998: Chapter 6) and Laclau and Mouffe (2001: 65-71).

¹⁶ Although disputed, the launch of the "reverse course" is typically ascribed to a speech given by Kenneth Royall, the Secretary of the US Army, on 6 January 1948 (Finn 1992: 197).

¹⁷ SCAP indicates both the person of General MacArthur and the organisation he headed.

¹⁸ Japanese names are rendered in the traditional manner – family name followed by given name – except where the person concerned has published in English following the western tradition. Shoriki appears again below. A short hagiographic account of his life is presented in Hewins (1967).

¹⁹ On public opinion see Hook (1996: Chapter 5), Wittner (1997: 8-10), and (Kliman 2006: Chapter 3).

²⁰ On the close connection between state and media in Japan see Nester (1989) and Pharr and Krauss (1996).

²¹ Japan's urban population tripled in size between 1945 and 1970. Francks (2009: 154).

²² In 1955 there were 166,000 televisions in Japan; by 1960 there were almost 7 million. The corresponding figures for West Germany were 2,000 and four and half million (Tipton 2002: 158, Table 10.3). In the early years, public exposure to television in Japan mainly took the form of shared viewing in public places. Shoriki made televisions available in 220 public spaces, often attracting audiences of 10,000 or more (Hewins 1967: 448).

²³ “Atoms for Peace” might be viewed as yet another nation / world order-building ideological construct after the fashion of “revere the emperor, expel the barbarian”, “civilization and enlightenment”, “rich nation, strong army”, “greater east Asian co-prosperity sphere”, “income-doubling plan” and, more subtly, “Japan as victim”, “Japanese pacifism” and so on. Such techniques were clearly in use in the US as well as in Japan, but their long history and familiarity to the Japanese might help explain the attraction of Eisenhower’s speech.

²⁴ Nevertheless, as late as 1970 nuclear was supplying less energy to the US economy than firewood (Caufield 1989: 151; Nye 1999: 201).

²⁵ USIS India Annual Assessment Report, 4 November 1958, cited in Osgood (2006: 179). See also Hook (1996: 119-22).