

## THE HUMAN SCIENCES IN COLD WAR AMERICA

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**ABSTRACT.** *The last fifteen years have witnessed an explosion of interest in the history of the Cold War. Historical attention has focused not only on the diplomatic and military aspects of the conflict, but also, increasingly, on its cultural, intellectual, and technological dimensions. One of the fruits of this widening of scope in Cold War studies is a burgeoning literature on the development of the post-Second World War American human sciences. Studies of the Cold War career of the human sciences, however, have often been inflected by moralistic, and sometimes tendentious, claims about the relationship between the state and the academy. This article seeks to explain the chief characteristics of the historiography of the human sciences in Cold War America by describing its formation in the interstices of three distinct lines of inquiry: the history of science, the cultural turn in Cold War studies, and the history of the birth of the human science professions in the United States. It argues that historians of the post-war American human sciences have absorbed some features of these literatures, whilst neglecting others that offer more nuanced perspectives on the relationship between scientific research and its patrons during the Cold War era. Moreover, it suggests that the best prospects for the future maturation of the field lie in the recovery of ‘middle-range contextualizations’ that link post-war trends in the human sciences to interwar and turn-of-the-century developments, thereby making the Cold War context less all-encompassing than it has sometimes appeared.*

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The field of Cold War studies is booming. As the age of bipolar superpower conflict recedes from the present, its conversion into history proceeds apace. Stimulated by the opening of archives in the former Soviet Union, Eastern Europe, and China, research centres focusing on the history of the Cold War have proliferated over the last fifteen years.<sup>1</sup> The Cold War International History Project at the Woodrow Wilson Centre in Washington, DC (established in 1991), the Center for Cold War Studies at the University of California at Santa Barbara (1994), the Harvard Project on Cold War Studies (1997), the George Washington University Cold War Group (2000), and the Cold War Studies Centre at the London School of Economics (2004), to name just a few, all now cater for scholars of the period.<sup>2</sup> These institutes have produced three specialist journals – the *Cold War International History Project Bulletin*, the *Journal of Cold War Studies* and *Cold War History* – and two dedicated book

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<sup>1</sup> Mark Kramer, ‘Editor’s note’, *Journal of Cold War Studies*, 1 (1999), pp. 1–2; the Editors, ‘From the editors’, *Cold War History*, 1 (2000), pp. iv–v.

<sup>2</sup> Another major focal point for Cold War history is the wonderfully named Machiavelli Center for Cold War Studies, an Italian inter-university network with strong links to the University of Florence.

series.<sup>3</sup> In addition, many other prominent journals across a range of disciplines and sub-fields – including *Diplomatic History*, *Isis*, and the *Journal of American History* – have devoted many pages to the history of the Cold War. This increase in the volume and range of scholarship has fuelled the online publication of archival materials relating to the Cold War era.<sup>4</sup>

It cannot be said, as it once was, that the field is dominated by diplomatic and military history. Whilst the history of East–West diplomacy and military strategy still occupies a central position, there is increasing recognition that ‘the Cold War existed outside of military conflict, outside of diplomatic standoffs, and outside of superpower summits’.<sup>5</sup> Cold War history is now home to a number of subfields and methodologies. At the turn of the twenty-first century, when this pluralism was beginning to receive recognition, Odd Arne Westad suggested three new themes for Cold War history: ideology, technology, and the ‘Third World’, the last of which entailed a global perspective on the struggle between the United States and the Soviet Union.<sup>6</sup> Many of these paradigms, Westad acknowledged, were already being explored; six years later his three ‘paradigms’ – and others unforeseen in 2000 – have produced rich seams of scholarship. When the 2006 Bancroft Prize was awarded to Westad’s path-breaking history *The global Cold War*, the seal was set on a vibrant and ecumenical area of contemporary historical research.<sup>7</sup> The synoptic scope of Westad’s history signalled another feature of the present dispensation: it is a period of consolidation as well as innovation in Cold War history. A number of synthetic histories and sourcebooks of the Cold War have either recently appeared, or will be published within the next few years – notably John Lewis Gaddis’s *The Cold War: a new history* and the projected three-volume *Cambridge history of the Cold War*, edited by Melvyn Leffler and the ubiquitous Westad.<sup>8</sup>

Despite this vigour, the Cold War remains a troublesome topic for historians. The most obvious problem is that it has been, and remains, politicized. Historians on the centre-right view the Cold War as a moral struggle undertaken by the United States to contain communist tyranny across the globe. Rejecting what they view as the crypto-apologetics of liberal and left commentators on the Cold War, these historians emphasize that communism was as pernicious and homicidal a form of totalitarianism as Nazism.<sup>9</sup> Critics on the

<sup>3</sup> See Harvard University Press’s Harvard Cold War Studies Book Series, which is directed by the Harvard Project on Cold War Studies, and the Cold War History Series from Routledge, edited by Odd Arne Westad and Michael Cox.

<sup>4</sup> ProQuest’s *Digital National Security Archive*, for example, has made available the holdings of the Washington-based National Security Archive, which cover a range of documents on post-war American foreign policy: <<http://nsarchive.chadwyck.com>> (2 June 2006). See also the Soviet sources on the website of the Harvard Project on Cold War Studies at <<http://www.fas.harvard.edu/%7Ehpcws/documents.htm>> (2 June 2006); and the Venona files at <<http://www.nsa.gov/venona/index.cfm>> (2 June 2006).

<sup>5</sup> David C. Engerman, ‘The romance of economic development and new histories of the Cold War’, *Diplomatic History*, 28 (2004), pp. 23–54, at p. 24.

<sup>6</sup> Odd Arne Westad, ‘The new international history of the Cold War: three (possible) paradigms’, *Diplomatic History*, 24 (2000), pp. 551–65.

<sup>7</sup> Odd Arne Westad, *The global Cold War: Third World interventions and the making of our time* (Cambridge, 2005).

<sup>8</sup> John Lewis Gaddis, *The Cold War: a new history* (New York, 2005). See also Odd Arne Westad and Jussi Hanhimäki, *The Cold War: a history in documents and eyewitness accounts* (Oxford, 2003).

<sup>9</sup> For an account of global communism as a pernicious force, see Stéphane Courtois et al., *The black book of communism: crimes, terror, repression*, trans. Jonathan Murphy and Mark Kramer (Cambridge, MA,

left have responded by arguing that the conflict between American and Soviet hegemonies was part of a much larger competition over control of the world order on the part of advanced industrial nations in the twentieth century.<sup>10</sup> In addition to partisanship, another problematic aspect of recent scholarship has been the hold on the historical imagination of undertheorized assumptions about American society during the Cold War. The presence of these assumptions is signalled by the growing use of the proper name ‘Cold War’ as an adjective in much recent literature. Whilst the function of such adjectives is to individuate the objects to which they are applied, they can only do so if their meaning is, at least to some degree, understood in advance. The increasing use by historians of the United States of phrases such as ‘Cold War politics’, ‘the Cold War university’, and ‘Cold War science’ therefore seems to imply a common understanding of the dimensions of American culture and politics during the Cold War. In some cases – and this will be the usage adopted in this article – the prefix ‘Cold War’ means simply ‘of the Cold War era’. Yet in other contexts it implicitly conjures up stereotypical features of post-war American society – social conformity, McCarthyite censorship, the co-optation of science by the military, and so on – without either clearly identifying those features or critically examining their historical validity.

Historians who aim to offer a measured assessment of the American experience during the Cold War must therefore be on their guard against both ideologically motivated interpretations and second-nature historical caricature. This caution has particular salience in what has in recent years become a burgeoning research front: the history of the American human sciences during the Cold War. (In common with related umbrella terms that have been used to describe the disciplines that lie between the creative arts and the natural sciences, the term ‘human science’ admits of many definitions. For the purposes of this review, it is used to describe those academic forms of inquiry that study human thought and action, in particular philosophy, psychology, economics, sociology, and anthropology.<sup>11</sup>) The injunction to avoid Cold War stereotyping has purchase in the history of the Cold War human sciences because the activities of its practitioners in the years following the Second World War would seem, at first blush, to be profoundly shaped by the pressures and enticements characteristic of the Cold War milieu. Intellectual historians have good methodological reasons for emphasizing the social and discursive context of beliefs; in the case of the Cold War it seems impossible to ignore the social determination of the ‘scientific’ study of humanity. This was a time when scholars shuttled back and forth between governmental and academic positions, carried out research on military contracts, collected corporate consultancies, and faced the threat of McCarthyite censure. It is hard to imagine a better proving ground of the theory that ideas – even ostensibly abstract ones – are inextricably historical. But the ease with which context comes to historians of the American human sciences during the Cold War has, in some cases, encouraged them

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1999). On the Cold War as a product of Soviet hostility, see Robert Conquest, *Reflections on a ravaged century* (London, 1999), pp. 150–65; John Lewis Gaddis, *We now know: rethinking Cold War history* (Oxford, 1997).

<sup>10</sup> A useful survey of attitudes towards the history of the Cold War can be found in Michael J. Hogan, ed., *The end of the Cold War: its meaning and implications* (Cambridge, 1992).

<sup>11</sup> For a helpful discussion of the problems associated with omnibus names for the humanistic disciplines, which include ‘the moral sciences’, ‘the social sciences’, and ‘behavioural science’, as well as ‘the human sciences’, see Theodore M. Porter and Dorothy Ross, ‘Introduction: writing the history of social science’, in Theodore M. Porter and Dorothy Ross, eds., *The Cambridge history of science, VII: the modern social sciences* (Cambridge, 2003), pp. 1–3.

to indulge in overly politicized and reductive accounts of the development of the human science disciplines in the United States.

In the light of the flourishing, but fraught, enterprise of Cold War history, this article explores the strengths, weaknesses, and desirable future developments in the growing historiography of the human sciences in Cold War America. In the first section, this literature is located within three distinct lines of inquiry: the history of science, the cultural turn in Cold War studies, and the history of the birth of the human science professions in America. This initial mapping of the historiographical terrain is necessary for several reasons: the history of the human sciences during the Cold War era has been shaped by each of these subfields; even where the influence has not been direct, it is by comparison with neighbouring literatures that the peculiarities of the historiography of the Cold War human sciences are thrown into full relief; finally, it is useful during this time of consolidation in Cold War studies to bring discrete literatures into closer proximity. Section II addresses accounts of the development of the human sciences that adopt the rhetoric of ‘collaborators’ and ‘victims’ in their assessment of the impact of the Cold War on scholarship. Rejecting both the simplistic reading of institutional constraints and the totalizing view of the Cold War context for academic intellectuals often found in such accounts, in section III one strand in the literature is examined – the history of modernization theory – that strikes agreeably polyphonic notes. Yet even in this field there has been a tendency to elevate the Cold War context above all others. The article concludes by suggesting that emergent ‘middle-range contextualizations’ of the post-war human sciences offer fruitful, and less hyperbolic, models for investigating the study of humanity in the United States during the Cold War era.

## I

Historians of the American human sciences are relative latecomers to Cold War studies and have taken their bearings from three co-ordinates. The primary body of scholarship toward which they have orientated their work is the history of science. Even during the Cold War itself, it was clear to those scientists involved with government-sponsored projects that the organization of scientific research in the United States had undergone rapid transformation since the 1930s. But concerted attempts to uncover Cold War linkages between science, industry, the armed forces, and civilian government began in earnest during the backlash against the Vietnam War in the late 1960s, and flourished in the 1980s. The spur for the latter analyses was the Reagan administration’s support for a clutch of multibillion-dollar scientific megaprojects: the Strategic Defense Initiative, controlled fusion, and the Superconducting Super Collider. These initiatives prompted historians of science to look back to the birth of ‘Big Science’ in the 1940s and 1950s.<sup>12</sup>

<sup>12</sup> Few historical studies of the ‘politics of science’ in the 1980s failed to refer to the SDI or the SSC. See, for example, Everett Mendelsohn, Merritt Roe Smith, and Peter Weingart, ‘Science and the military: setting the problem’, in Everett Mendelsohn, Merritt Roe Smith, and Peter Weingart, eds., *Science, technology and the military* (Dordrecht, 1988), pp. xi–xii; David Dickson, *The new politics of science* (rev. edn, Chicago, 1988), pp. vii–xi; Peter Galison, ‘The many faces of Big Science’, in Peter Galison and Bruce Hevly, eds., *Big science: the growth of large-scale research* (Stanford, CA, 1992), pp. 1–2. See also the discussion of the political debates surrounding the Superconducting Super Collider in Daniel

Two principal approaches may be discerned in the literature on American science during the Cold War, each of which has found resonance in studies of the Cold War human sciences. The first has sought to map what Stuart Leslie has called the ‘military–industrial–academic complex’, which supported scientific research across a range of fields after the Second World War.<sup>13</sup> During the war, each major branch of the military ploughed unprecedented amounts of money into weapons research, thereby mobilizing the expertise of a large number of physicists, engineers, materials scientists, and mathematicians. Federal sponsorship of militarily relevant scientific research was organized by the Office of Scientific Research and Development (OSRD). Eager to appropriate federal funds for scientific research, the OSRD’s leaders were equally keen to ensure that control of the knowledge produced through scientific inquiry remained in the hands of scientists and academics, rather than in those of the military. They furthered this aim by organizing defence research on the basis of contracts, which were tendered by the armed forces but carried out by university – and not exclusively military – laboratories.<sup>14</sup> The war against the Axis powers therefore greatly facilitated the integration of the American university and the state, with consequences for the human, as well as the natural, sciences.<sup>15</sup> Certain projects were brought more directly under the aegis of the armed services, notably atomic bomb research at Los Alamos and Oak Ridge. Federal spending on research and development multiplied from \$23 million in 1938 to over \$1.6 billion by 1945, with the Manhattan Project alone commanding more than \$800 million during that fiscal year.<sup>16</sup>

The devastating power of the atomic attacks on Hiroshima and Nagasaki, along with the advantages conferred by radar and rocket technology, convinced American military leaders of the importance of scientific knowledge in the waging of modern wars. For their part, those university presidents and scientific administrators who had seen their coffers filled by the OSRD had no desire to forsake Mammon. Historians of science have accordingly paid particular attention to the transitional moment between the close of the Second World War and the beginning of the Cold War, a moment during which universities, research laboratories, politicians, and bureaucrats sought to establish a durable national system of scientific research that could, in the words of President Roosevelt, allow the ‘lessons’ of wartime to be ‘profitably employed in times of peace’.<sup>17</sup> Various studies have shown how each group in the wartime coalition had different agendas and made various adaptations to the post-war environment, from scientist-administrators like Vannevar Bush and James Bryant Conant to individual universities and

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J. Kevles, *The physicists: the history of a scientific community in modern America* (rev. edn, Cambridge, MA, 1995), pp. ix–xlii.

<sup>13</sup> Stuart Leslie, *The Cold War and American science: The military-industrial-academic complex at MIT and Stanford* (New York, 1993).

<sup>14</sup> Kevles, *The physicists*, pp. 293–323; Irvin Stewart, *Organizing scientific research for war: the administrative history of the Office of Scientific Research and Development* (Boston, MA, 1948); Vannevar Bush, *Pieces of the action* (New York, 1970).

<sup>15</sup> For a survey of the origins of this relationship, see Roger L. Geiger, *Research and relevant knowledge: American research universities since World War II* (New York, 1993), pp. 6–13.

<sup>16</sup> Paul Forman, ‘Behind quantum electronics: national security as a basis for physical research in the United States, 1940–1960’, *Historical Studies in the Physical and Biological Sciences*, 18 (1987), pp. 149–229, at pp. 152–3.

<sup>17</sup> FDR to Vannevar Bush, 17 Nov. 1944, reprinted in Vannevar Bush, *Science – the endless frontier* (Washington, DC, 1945), p. 3.

disciplines.<sup>18</sup> The task at hand, despite the divergence of aims, was to fashion new institutional forms that could consolidate the links between the defence industry, the incipient national security state, and the scientific establishment. The dissolution of the OSRD left a void that was soon filled by a network of successor organizations: the Office of Naval Research, the think tank Project RAND (later the RAND Corporation), the Atomic Energy Commission, and, after a long struggle in Congress, the National Science Foundation.<sup>19</sup> At the same time, research universities transformed themselves into conduits for military and industrial research funds, and in doing so ‘moved from the periphery to the center of the nation’s political economy’.<sup>20</sup>

Second World War exigencies became imperatives once American involvement in Korea signalled the move to a permanent war footing.<sup>21</sup> Yet the relationship between science and the national security state in post-war America was not an altogether happy one. The second major approach to the history of science in Cold War America, which complements the first, focuses on the consequences of the ‘securitization’ of science. These studies have raised the question of whether national security agendas compromised the values of free inquiry and distorted the development of scientific research. Some have answered in the affirmative, arguing that the Cold War ‘reshaped’ not just ‘university structures’ but ‘the *content* of academic disciplines’.<sup>22</sup> Mark Solovey has, for example, forcefully asserted that ‘Cold War politics helped to determine what science was, what it

<sup>18</sup> Daniel J. Kevles, ‘The National Science Foundation and the debate over postwar research policy, 1942–1945: a political interpretation of *Science – the endless frontier*’, in Ronald L. Numbers and Charles E. Rosenberg, eds., *The scientific enterprise in America: readings from Isis* (Chicago, 1996), pp. 297–319; James G. Hershberg, *James G. Conant: Harvard to Hiroshima and the making of the nuclear age* (New York, 1993); Robert Kargon and Stuart Leslie, ‘Imagined geographies: Princeton, Stanford and the boundaries of useful knowledge in postwar America’, *Minerva*, 32 (1994), pp. 121–43; Leslie, *The Cold War and American science*; Rebecca S. Lowen, ‘The more things change ... : money, power and the professoriate’, *History of Education Quarterly*, 45 (2005), pp. 438–45; Peter Galison, ‘Physics between war and peace’, in Mendelsohn, Smith, and Weingart, eds., *Science, technology and the military*, pp. 47–86; David Kaiser, ‘Cold War requisitions, scientific manpower, and the production of American physicists after World War II’, *Historical Studies in the Physical and Biological Sciences*, 33 (2002), pp. 131–59.

<sup>19</sup> On the ONR, see S. S. Schweber, ‘The mutual embrace of science and the military: ONR and the growth of physics in the United States after World War II’, in Mendelsohn, Smith and Weingart, eds., *Science, technology and the military*, pp. 3–45. On RAND see Bruce L. R. Smith, *The RAND Corporation: a case study of a nonprofit advisory corporation* (Cambridge, MA, 1966); David Hounshell, ‘The Cold War, RAND, and the generation of knowledge, 1946–1962’, *Historical Studies in the Physical and Biological Sciences*, 27 (1997), pp. 237–67. On the early years of the AEC, see Richard G. Hewlett and Oscar E. Anderson, Jr, *The new world, 1939/1946: a history of the United States Atomic Energy Commission*, 1 (University Park, PA, 1962); Richard G. Hewlett and Francis Duncan, *Atomic shield, 1947/1952: a history of the United States Atomic Energy Commission*, II (University Park, PA, 1969). On the National Science Foundation, see Thomas Gieryn, *Cultural boundaries of science: credibility on the line* (Chicago, 1999), pp. 65–114.

<sup>20</sup> Rebecca Lowen, *Creating the Cold War university: the transformation of Stanford*, (Berkeley, CA, 1997), p. 2.

<sup>21</sup> On the impact of the Korean War on federal science policy, see Forman, ‘Behind quantum electronics’; Daniel Kevles, ‘K<sub>1</sub>S<sub>2</sub>: Korea, science and the state’, in Galison and Hevly, eds., *Big science*, pp. 312–33.

<sup>22</sup> David Montgomery, ‘Introduction: prosperity under the shadow of the bomb’, in Noam Chomsky, et al., *The Cold War and the university: towards an intellectual history of the postwar years* (New York, 1997), p. xii. Emphasis added.

did, and what it meant.<sup>23</sup> In a similar vein, historians of McCarthyism in the American academy such as Ellen Schrecker and Jessica Wang have argued that the climate of fear and suspicion generated by anticommunism limited intellectual debate on the social uses of science and circumscribed the ability of scientists to challenge the national security desiderata of federal science policy.<sup>24</sup> Recently, however, some historians of science have taken a more cautious line. In painstaking case studies, they have shown how the military's attempts to instrumentalize scientific research often failed or, at the very least, left scientists enough room to shape research agendas according to their own interests.<sup>25</sup> Despite their divergence on the issue of how state–science relations should be conceived, however, all of these studies explore the acute tension between the national security establishment's demand for secrecy and applied technologies, and the scientific community's need for open debate and basic research.

A major contribution of the history of science literature has been to underscore and extend the insight that the Cold War was more than a high-political drama. It was a constraining – but also, in some cases, an enabling – framework within which social, cultural, and intellectual developments unfolded. This holistic understanding of the Cold War has also underpinned explorations of the role of culture in American foreign policy and domestic social relations during the Cold War. The 'cultural turn in Cold War history', as it has been called, forms a second reference point for the historiography of the post-war American human sciences.<sup>26</sup> In keeping with the ambiguity of the term 'culture', historians have taken different routes to a cultural understanding of the Cold War. Scholars such as Frank Costigliola, Andrew Rotter, and Emily Rosenberg have analysed the language used by American policymakers to describe foreign nations, in the belief that 'the connotations of figurative language', such as that used by American policymakers to describe international relations, 'have real, although never absolute, causal effect'.<sup>27</sup> Common

<sup>23</sup> Mark Solovey, 'Introduction: science and the state during the Cold War: blurred boundaries and a contested legacy', *Social Studies of Science*, 31 (2001), pp. 165–70, at p. 168.

<sup>24</sup> Ellen Schrecker, *No ivory tower: McCarthyism and the universities* (New York, 1986); Jessica Wang, *American science in an age of anxiety: scientists, anticommunism, and the Cold War* (Chapel Hill, NC, 1999); Lawrence Badash, 'Science and McCarthyism', *Minerva*, 38 (2000), pp. 53–80; David Kaiser, 'The atomic secret in Red hands? American suspicions of theoretical physicists during the early Cold War', *Representations*, 90 (2005), pp. 28–60.

<sup>25</sup> David K. van Keuren, 'Cold War science in black and white: US intelligence gathering and its scientific cover at the Naval Research Laboratory, 1948–62', *Social Studies of Science*, 31 (2001), pp. 207–29; John Cloud, 'Imagining the world in a barrel: CORONA and the clandestine convergence of the earth sciences', *Social Studies of Science*, 31 (2001), pp. 231–51.

<sup>26</sup> Robert Griffith, 'The cultural turn in Cold War studies', *Reviews in American History*, 29 (2001), pp. 150–7. Another useful summary can be found in Stephen Tuck, 'The new American histories', *Historical Journal*, 48 (2005), pp. 811–32, at pp. 821–4.

<sup>27</sup> Frank Costigliola, "'Unceasing pressure for penetration": gender, pathology, and emotion in George Kennan's formation of the Cold War', *Journal of American History*, 83 (1997), pp. 1309–39, at p. 1338. See also idem, 'The nuclear family: tropes of gender and pathology in the Western alliance', *Diplomatic History*, 21 (1997), pp. 163–83; Emily Rosenberg, 'Foreign affairs after World War II: connecting sexual and international politics', *Diplomatic History*, 18 (1994), pp. 59–70; Andrew Rotter, *Comrades at odds: culture and Indo–U.S. relations* (Ithaca, NY, 2000); Andrew Rotter, 'Feeding beggars: class, caste, and status in Indo–U.S. relations, 1947–1964', in Christian G. Appy, ed., *Cold War constructions: the political culture of United States imperialism, 1945–1966* (Amherst, MA, 2000), pp. 67–85. Summaries of this literature may be found in Brenda Gayle Plummer, 'The changing face of diplomatic history: a literature review', *History Teacher*, 38 (2005), pp. 385–400; Michael J. Hogan, 'The

tropes – especially those rooted in gender stereotypes – have significantly determined the attitudes and responses of US leaders towards the actions of other nations.<sup>28</sup> Another approach to the issue of culture in the Cold War has been to examine the ways in which culture served as a *tool* of foreign policy. Assessing the war for the ‘hearts and minds’ of European and ‘Third World’ peoples, historians have shown how US intelligence and propaganda agencies sought to promote the American model of market democracy and free intellectual expression, in opposition to an equally attuned Soviet cultural propaganda machine. The attempt to win foreign adherents to what Frances Stonor Saunders calls ‘the American proposition’ spawned an array of organizations and initiatives, underwritten by various branches of the federal government. Whilst the CIA sought to rally Western European intellectuals around the banner of liberal anticommunism through the Congress for Cultural Freedom, the State Department and the United States Information Agency attempted to reach consumers of popular culture by means of radio programming, tours, and exhibitions that promoted the work of American musicians and artists.<sup>29</sup> Propagandistic though these may have been, they were supported not just by politicians, but, as Jessica Gienow-Hecht has pointed out, by writers, artists, and intellectuals ‘who regarded their developing cultural programmes abroad as worthy weapons to eliminate totalitarianism in the world’.<sup>30</sup>

Nonetheless, some of the American artists conscripted to proselytize on behalf of the American Way harboured deep reservations about such activities, and sometimes invoked the values they were promoting to criticize the iniquities of American society. Penny von Eschen has provided a rich account of the competing agendas of federal agencies and African American jazz musicians involved with State Department-sponsored ‘goodwill tours’ in the 1950s.<sup>31</sup> Although some historians are inclined to suggest that the Cold War retarded the development of civil rights activism, Mary Dudziak has stressed that the need to project a positive image of American democratic life to post-colonial nations in Africa and Asia helped to motivate federal intervention to end segregation in the 1950s.<sup>32</sup> These descriptions of the ways in which Cold War concerns played into other, long-standing themes in American culture and society point up a final dimension of ‘culture’ in Cold War studies. This form of cultural history moves beyond the sphere of diplomacy and looks at the general cultural forms engendered by the Cold War. Here the term ‘Cold War’ is taken in its broadest sense to mean an era defined by fears of communist subversion and anxieties about nuclear power and by an attraction to ‘dualistic’ and rigidified visions of

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“next big thing”: the future of diplomatic history in a global age’, *Diplomatic History*, 28 (2004), pp. 1–21, at p. 2.

<sup>28</sup> Andrew Rotter, ‘Gender relations, foreign relations: the United States and South Asia, 1947–1964’, *Journal of American History*, 81 (1994), pp. 518–42, at p. 521.

<sup>29</sup> Frances Stonor Saunders, *Who paid the piper? The CIA and the cultural Cold War* (London, 1999); Penny M. von Eschen, *Satchmo blows up the world: jazz ambassadors play the Cold War* (Cambridge, MA, 2004); Serge Guilbaut, *How New York stole the idea of modern art: abstract expressionism, freedom, and the Cold War*, trans. Arthur Goldhammer (Chicago, 1985); Michael L. Krenn, “‘Unfinished business’: segregation and U.S. diplomacy at the 1958 World’s Fair’, *Diplomatic History*, 20 (1996), pp. 591–612.

<sup>30</sup> Jessica C. E. Gienow-Hecht, ‘Shame on US? academic, cultural transfer, and the Cold War – a critical review’, *Diplomatic History*, 24 (2000), pp. 465–94, at p. 469.

<sup>31</sup> Von Eschen, *Satchmo blows up the world*; Penny M. von Eschen, ‘Who’s the real ambassador? Exploding Cold War racial ideology’, in Appy, ed., *Cold War constructions*, pp. 110–31.

<sup>32</sup> Mary L. Dudziak, *Cold War civil rights* (Princeton, NJ, 2000).



political morality. The challenge has been to understand how the Cold War resonated within, and was in turn mediated by, mid-twentieth-century American culture.<sup>33</sup>

The final co-ordinate with which historians of the Cold War American human sciences have been provided is the rich body of work on the professionalization of philosophy and the social sciences during the late nineteenth and early twentieth centuries. Significantly, many of the landmark works on these disciplines terminate their narratives a decade or more before the onset of the Cold War. There is therefore a slight, but telling, gap in the periodization of twentieth-century American history that serves to make the Cold War a context unto itself; aside from textbooks, few studies have tried to connect the early with the mid-twentieth century.<sup>34</sup> Nevertheless, intellectual historians of the progressive era have set strong precedents. The most notable of these is the historicist view of academic disciplines as, in the terminology of Dorothy Ross, ‘projects’ rather than mirror images of the structure of the world. Citing the historian of psychology Mitchell Ash, Ross avers that ‘the history of social science disciplines is a “continuous struggle by multiple participants to occupy and define a sharply contested, but never clearly bounded, discursive and practical field”’.<sup>35</sup> What kind of project, then, was embodied by the American human sciences? The social science professions in the United States were born during a general crisis of national identity towards the end of the nineteenth century, which was precipitated by the social dislocations attendant upon mass immigration, break-neck industrialization, and urbanization. The urban disorder, economic corruption, and dizzying scientific-technological advances of the Gilded Age threw religious worldviews and notions of American exceptionalism into doubt, and with them the foundations of social knowledge. An enduring response to this crisis – as it was experienced by largely Protestant, middle-class, and north-eastern social elites – was found in the mechanism of professionalization. In the professions, individual authority was secured not by divine warrant or brute force but by the judgement of one’s peers offered on the basis of open criticism. Thomas Haskell has interpreted this as a principled solution to the tumult of modernity, particularly with regard to the challenge of legitimating social knowledge.<sup>36</sup> Others have seen more ideological motives at work. According to Ross, the new professions of sociology, political science, and economics aimed to contain the implications of historical change and salvage the exceptionalist vision. Their exponents sought to reveal the operation of natural laws – laws of

<sup>33</sup> The earliest studies of American culture in the early Cold War era are Lary May, ed., *Recasting America: culture and politics in the age of Cold War* (Chicago, 1989); Stephen J. Whitfield, *The culture of the Cold War* (Baltimore, MD, 1991); and Paul Boyer, *By the bomb’s early light: American thought and culture at the dawn of the atomic age* (New York, 1985). For a useful guide to some of the more recent literature, see Griffiths, ‘The cultural turn in Cold War studies’. On the dualism of Cold War culture, see K. A. Cuordileone, ‘“Politics in an age of anxiety”’: Cold War political culture and the crisis in American masculinity, 1949–1960’, *Journal of American History*, 87 (2002), pp. 515–45.

<sup>34</sup> For major monographs that conclude in the interwar years, see Bruce Kuklick, *The rise of American philosophy: Cambridge, Massachusetts, 1830–1930* (New Haven, CT, 1977); James Kloppenberg, *Uncertain victory: social democracy and progressivism in European and American thought, 1870–1920* (Oxford, 1986); Dorothy Ross, *The origins of American social science* (Cambridge, 1991). One historian who has ranged across both periods is David Hollinger. See Hollinger, *Science, Jews, and secular culture: studies in mid-twentieth-century American intellectual history* (Princeton, NJ, 1996).

<sup>35</sup> Dorothy Ross, ‘Changing contours of the social science disciplines’, in Porter and Ross, eds., *Cambridge history of science*, VII, pp. 205–37.

<sup>36</sup> Thomas Haskell, *Objectivity is not neutrality: explanatory schemes in history* (Baltimore, MD, 1998), pp. 63–114, 174–223. See also Thomas Haskell, *The emergence of professional social science: the American Social Science Association and the nineteenth century crisis of authority* (Urbana, IL, 1977).

liberal progress and social equilibrium – beneath the roiling surface of American society. Ross, Furner, and Robert Bannister have argued that a desire to ape the epistemologies of the natural sciences – a disposition that has variously been called ‘scientism’, ‘objectivism’, or ‘positivism’ – has animated the social science ‘project’ in the United States.<sup>37</sup> Historians of philosophy have likewise viewed that discipline as attempting to reconcile the ethical residue of religion with the implications of an all-conquering science.<sup>38</sup> This literature has bequeathed to interpretations of the post-Second World War human sciences two major inclinations. One is the expectation that the human sciences are bound up in the construction of power and authority in American society. In particular, the sciences of man are often linked to a technocratic, expert-oriented, liberal politics. The other tendency is to assume that positivism is the dominant epistemological orientation in social science. This conviction has helped to corroborate the view of American social science as a technocratic ideology.

## II

Investigation into the development of the human sciences during the Cold War began in earnest in the mid-to late 1990s. Already in the late 1980s, a handful of scholars had begun to assess the impact of Cold War military funding on the social sciences, but they were more concerned with maintaining, and even improving, this connection than with its consequences for free social inquiry. An unrepentant Carl Kaysen – one of President Kennedy’s top national security advisers – cautioned his fellow social scientists in 1989 that they shared ‘the public interest in an effective and efficient defense and should respect the variety of ways that the university world can contribute to it’.<sup>39</sup> In a more critical piece published in the same year, the political scientist Terence Ball remarked that the ‘welfare-warfare state that emerged in the Depression and cold war eras created the conditions in which the various social sciences ... became valuable, if not indispensable, adjuncts of corporate and state power’. Yet he concluded by chastising Cold War social scientists, not for compromising their intellectual independence, but for promising more than they could deliver.<sup>40</sup> By the 1990s, however, commentators on the Cold War human sciences had become explicitly critical of the relationship between social knowledge and the national security state.<sup>41</sup> A trio of works set the tone. In 1995, the *Radical History Review* devoted a

<sup>37</sup> Ross, *Origins of American social science*; Dorothy Ross, ‘A historian’s view of American social science’, in Ronald G. Walters, ed., *Scientific authority & twentieth century America* (Baltimore, MD, 1997), pp. 32–49; Mary O. Furner, *Advocacy and objectivity: a crisis in the professionalization of American social science* (Lexington, KY, 1975); Robert C. Bannister, *Sociology and scientism: the American quest for objectivity, 1880–1940* (Chapel Hill, NC, 1987).

<sup>38</sup> Kuklick, *The rise of American philosophy*; Bruce Kuklick, *A history of philosophy in America, 1720–2000* (Oxford, 2001); Daniel J. Wilson, *Science, community and the transformation of American philosophy, 1860–1930* (Chicago, 1990).

<sup>39</sup> Carl Kaysen, ‘Can universities cooperate with the defense establishment?’, *Annals of the American Academy of Political and Social Science*, 502 (1989), pp. 29–39, at p. 39. See also Richard D. Lambert, ‘DoD, social science, and international studies’, *Annals of the American Academy of Political and Social Science*, 502 (1989), pp. 94–107.

<sup>40</sup> Terence Ball, ‘The politics of social science in postwar America’, in May, ed., *Recasting America*, pp. 76–92.

<sup>41</sup> An early example of this kind of work can be found in Sigmund Diamond, *Compromised campus: the collaboration of universities with the intelligence community, 1945–1955* (New York, 1992).

special issue to 'The Cold War and expert knowledge', in which articles on economics, psychology, and strategic sciences such as Operations Research and deterrence theory were prominently featured.<sup>42</sup> Then came the first two volumes of collected essays in The New Press's 'Cold War and the university' series: *The Cold War and the university* (1997) and *Universities and empire: money and politics in the social sciences during the Cold War* (1998).<sup>43</sup> These critiques from the left sought to 'document the ways in which the Cold War era reframed in some contexts, and distorted in others, the very goals and practices of certain fields',<sup>44</sup> in the belief that 'the Cold War was the most important fact in all of our lives during most of the second half of this century'.<sup>45</sup> Although some authors were careful to point out that they did not wish to 'sustain any particular proposition about the relationship between the Cold War and the production of knowledge',<sup>46</sup> most of the contributors believed that they were uncovering what Richard Lewontin called 'the big truth about the Cold War and the academy'. This truth involved the threefold claim that the human and natural sciences had grown exponentially in size and influence due to their willing attachment to the national security apparatus after the Second World War; that this pact with the defence establishment and anticommunist politics involved the repression of non-liable research programmes and the marginalization of radical scholars; and that this unifying association was conveniently ignored in most official accounts of the post-war developments of the human science disciplines. 'Although it is a severe blow to their sense of moral righteousness and self-esteem', noted Lewontin, 'academics must face the fact that the Via Dolorosa along which many of their colleagues, friends and comrades were dragged to their crucifixions was also the high road to professional prosperity for the great majority'.<sup>47</sup>

In a similar fashion to Lewontin, many historians of the human sciences have viewed the Cold War as a time of prosperity for those willing to hitch their stars to the funding nexus of the state, private industry, and the philanthropies (Ford, Rockefeller, Carnegie); and as a time of penury for those pursuing projects that ran away from or counter to the interests promoted by the military-industrial-academic complex. Much as in the history of science literature, historians of the Cold War human sciences have sought to reconstruct in detail the institutionalized relations between academic inquiry and its post-war patrons. But they have been much keener to present their findings as hitherto hidden truths about the American human sciences, thereby raising in more acute form the question of whether Cold War politics compromised or distorted professional research. The historian of economics, Philip Mirowski, has captured the tenor of this approach in his claim that 'No one seems to want to ask the quintessential economic question about the modern economics profession – Who pays? *Qui bono?*'<sup>48</sup> Mirowski, and those who take a similar position, have been at pains to point out that there was no 'consistent and direct relationship between funding sources and the political biases or findings of

<sup>42</sup> *Radical History Review*, 63 (1995).

<sup>43</sup> Noam Chomsky et al., *The Cold War and the university*; Christopher Simpson, ed., *Universities and empire: money and politics in the social sciences during the Cold War* (New York, 1998).

<sup>44</sup> Michael A. Bernstein and Allen Hunter, 'Editors' introduction', *Radical History Review*, 63 (1995), pp. 1–6, at p. 5.

<sup>45</sup> Andre Schriffin, 'Editor's note', in Chomsky et al., *The Cold War and the university*, p. vii.

<sup>46</sup> Bernstein and Hunter, 'Editors' introduction', p. 3.

<sup>47</sup> R. C. Lewontin, 'The Cold War and the transformation of the academy', in Chomsky et al., *The Cold War and the university*, p. 2.

<sup>48</sup> Philip Mirowski, *Machine dreams: economics becomes a cyborg science* (Cambridge, 2002), p. 153.

researchers'.<sup>49</sup> But whereas historians of science and technology have of late paid increasing attention to the disjuncture between the aims and outcomes of national security-inspired science, students of the Cold War human sciences have emphasized the success with which extra-academic agendas were imposed on the sciences of man.

Every discipline, it seems, has its Cold War dirty laundry to air. Within this broad range, there are some common themes. The first is a distinction between what may be identified as 'constructive' and 'repressive' distortions of the Cold War human sciences. 'Constructive' accounts of the development of the human sciences during the Cold War describe the way in which national security agendas and propaganda for the virtues of capitalist democracy *actively shaped* both the methodology and the empirical research programmes of various disciplines. It is with this connection in mind that Michael A. Bernstein, Philip Mirowski, and S. M. Amadae have sought to explain the post-war rise of linear programming, Operations Research, and game theory in American economics. They have shown that the Cold War ascendancy of mathematical neoclassical research programmes, based on individualistic, instrumental, and computational methodologies, was not 'a product of dispassionate inquiry'.<sup>50</sup> Rather, it was the result of the promotion of such lines of research by military sponsors or their corporate proxies, who were keen to develop forms of analysis that could give America and its allies a competitive advantage in the complex planning of modern warfare.<sup>51</sup> In anthropology and psychology, too, particular kinds of research interests were cultivated by the Office of Naval Research, RAND, the army's Office of Research and Development, and other federal or quasi-federal organizations. Ellen Herman has demonstrated how a 'profoundly psychological definition of the Cold War itself' – common among human scientists and defence elites – involved American psychologists in a range of government funded programmes, from research on psychological warfare to studies on mass communications, public morale, and intelligence testing.<sup>52</sup> Anthropologists were commissioned to study strategically important nations by institutes such as MIT's CIA-sponsored Center for International Studies (CENIS) and Harvard's Carnegie-funded Russian Research Center.<sup>53</sup> In each disciplinary case, historians have followed their colleagues in the history of science by emphasizing the crucial importance of the Second World War in establishing a pattern of mutual dependence between the human sciences and the state.<sup>54</sup> Although many human scientists fretted in the immediate post-war years as to whether the flow of federal research monies would

<sup>49</sup> David H. Price, 'Subtle means and enticing carrots: the impact of funding on American Cold War anthropology', *Critique of Anthropology*, 23 (2003), pp. 373–401, at p. 392.

<sup>50</sup> Michael A. Bernstein, 'American economics and the national security state, 1941–1953', *Radical History Review*, 63 (1995), pp. 9–26, at p. 19.

<sup>51</sup> Michael A. Bernstein, *A perilous progress: economists and public purpose in twentieth-century America* (Princeton, NJ, 2001), pp. 91–114; Mirowski, *Machine dreams*; S. M. Amadae, *Rationalizing capitalist democracy: the Cold War origins of rational choice liberalism* (Chicago, 2003).

<sup>52</sup> Ellen Herman, 'Project Camelot and the career of Cold War psychology', in Simpson, ed., *Universities and empire*, p. 100. See also Ellen Herman, 'The career of Cold War psychology', *Radical History Review*, 63 (1995), pp. 53–85; Ellen Herman, *The romance of American psychology: political culture in the age of experts* (Berkeley, CA, 1995).

<sup>53</sup> Price, 'Subtle means and enticing carrots'; Laura Nader, 'The phantom factor: impact of the Cold War on anthropology', in Chomsky et al., *The Cold War and the university*, pp. 107–46.

<sup>54</sup> For example, the stimulus that the experience of government work during the Second World War provided to entrepreneurial anthropologists like Margaret Mead is made explicit in Carleton Mabee, 'Margaret Mead and behavioral scientists in World War II: problems in responsibility, truth, and effectiveness', *Journal of the History of the Behavioral Sciences*, 23 (1987), pp. 3–13.

continue, the dawn of hostilities with Stalin's Russia revived and institutionalized links between the human sciences and the national security state, not least because the resource-laden defence establishment found such research much cheaper to fund than weapons technology.<sup>55</sup> Research priorities were therefore shaped within a long-term process of mutual accommodation. Perhaps only in political science and international relations theory, as K. J. Holsti has shown, was intellectual content *directly* reactive to the serial crises of international and domestic politics.<sup>56</sup>

'Repressive' assessments of the impact of the Cold War on the American human sciences focus less on the enticements of government funding and more on the ways in which anticommunist politics in general, and McCarthyism in particular, silenced scholars who held views that did not fit with the post-war orientation of their disciplines. Ellen Schrecker's history of McCarthyism and the university, *No ivory tower* (1986), has been a seminal influence on this branch of the literature. Her enigmatic claim that the anti-communist hysteria of the 1950s coincided with the 'heyday of consensus history, modernization theory, structural functionalism, and the new criticism' – paradigms which 'celebrated the status quo' – has inspired some historians to claim that anticommunism effectively censored radical forms of social knowledge and promoted those that fitted the narrow confines of Cold War ideology.<sup>57</sup> For example, a case study of the economics department of the University of Illinois in the 1950s claimed that Keynesian, left-liberal, economists were accused of communist affiliations by their conservative colleagues and eventually hounded out.<sup>58</sup> The repressive aspects of Cold War culture have especially galvanized critics of the current state of American philosophy. Citing the apolitical and forbiddingly technical nature of the dominant 'analytic' paradigm, recent works by John McCumber and George Reisch have argued that the more capacious and socially engaged philosophical programmes embodied by pragmatism and the Unity of Science movement (propounded by Vienna Circle émigrés) fell afoul of McCarthy's academic henchmen. Philosophers felt compelled to retreat from the exoteric realm of cultural politics and concentrate instead on esoteric mathematical logic and linguistic analysis.<sup>59</sup>

A second theme that runs through the various disciplinary histories is an exploration of the interdisciplinary formations embodied in new research fields such as 'area studies', 'behavioural science', and 'systems theory'. As historians of science such as Peter Galison have pointed out, it was during the Second World War that new platforms for the integration of the mathematical, engineering, and natural sciences were constructed, in response to the practical, but immensely complex, problems posed by a technologically

<sup>55</sup> On the debates within the social science community on their relationship to federal science policy in the post-war era, see Mark Solovey, 'Riding natural scientists' coattails onto the endless frontier: the SSRC and the quest for scientific legitimacy', *Journal of the History of the Behavioral Sciences*, 40 (2004), pp. 393–422.

<sup>56</sup> K. J. Holsti, 'Scholarship in an era of anxiety: the study of international politics during the Cold War', *Review of International Studies*, 24 (1998), pp. 17–46; Ido Oren, 'The enduring relationship between the American (national security) state and the state of the discipline', *PS: Political Science and Politics*, 34 (2004), pp. 53, 54.

<sup>57</sup> Schrecker, *No ivory tower*, p. 339.

<sup>58</sup> Winton U. Solberg and Robert W. Tomilson, 'Academic McCarthyism and Keynesian economics: the Bowen controversy at the University of Illinois', *History of Political Economy*, 29 (1997), pp. 55–81. For further remarks on anticommunist politics at the University of Illinois, see Nicholas Wiseman, 'Falsely accused: Cold War liberalism reassessed', *Historian*, 66 (2004), pp. 320–34.

<sup>59</sup> John McCumber, *Time in the ditch: American philosophy and the McCarthy era* (Evanston, IL, 2001); George Reisch, *How the Cold War transformed philosophy of science: to the icy slopes of logic* (Cambridge, 2005).

sophisticated and globe-straddling war effort.<sup>60</sup> Scholars in humanistic disciplines, too, were called upon to engage in teamwork on cross-disciplinary projects, thereby giving birth to new disciplines and heightened expectations regarding the social role of the human sciences. Area studies was born under the aegis of the Research and Analysis Branch of the Office of Strategic Services, the forerunner of the CIA. Here, political scientists, sociologists, economists, anthropologists, and historians of diverse backgrounds and political affiliations were brought together to generate holistic accounts of regions where American interests were at stake, including the USSR.<sup>61</sup> After the war, as the Iron Curtain fell over Eastern Europe and wars of national liberation erupted across the colonial world, American political elites placed an onus on the multidisciplinary reports generated by area studies programmes.<sup>62</sup> Infused by federal and foundation grants, area studies centres proliferated on the campuses of America's elite universities after the war.<sup>63</sup>

Behavioural science and systems theory, too, were products of the interdisciplinary model of Second World War research. Both sought to present themselves as scientific approaches to problems of human action and its co-ordination. Eschewing the normative and institutional focus of antediluvian 'social science', post-war behavioural scientists, in Ron Robin's words, 'assumed as a point of departure that most social phenomena resulted from the actions and interactions of individual agents'. These actions were viewed as the product of motivations that were formed in the social environment and could be quantified, analysed, and thereby subjected to prediction and control once the key variables had been identified.<sup>64</sup> This twin concentration on the construction of motivation in the individual, and on the articulation of the actions that resulted from those motivations into coherent group dynamics, was sufficiently capacious to allow anthropologists, psychologists, sociologists, political scientists, economists, and statisticians to reinvent themselves as 'behavioural scientists'. Systems analysts promised similar gains, but with somewhat different tools. Their discipline had coalesced among the scientists and engineers charged during the Second World War with solving the problem of gunfire control. Systems theory was taken over into the human sciences after the war by a dedicated group of mathematicians and social scientists at RAND. The systems approach addressed logistical problems of the optimization of resources and decision making within complex organizations by means of various mathematical and cybernetic models. Game theory, linear and dynamic programming, and social choice theory were used by economists and managerial scientists to analyse traditionally social scientific problems of resource allocation and operational efficiency. Sociologists adopted the systems model in their research on the making of social

<sup>60</sup> Peter Galison, 'The Americanization of unity', *Daedalus*, 127 (1998), pp. 45–71.

<sup>61</sup> Barry M. Katz, *Foreign intelligence: research and analysis in the Office of Strategic Services, 1942–1945* (Cambridge, MA, 1989).

<sup>62</sup> David L. Szanton, 'The origin, nature, and challenge of area studies in the United States', in David L. Szanton, ed., *The politics of knowledge: area studies and the disciplines* (Berkeley, CA, 2002), available at <<http://repositories.cdlib.org/uciaspubs/editedvolumes/3/1>> (18 June 2006).

<sup>63</sup> Other sources on area studies during the Cold War are Immanuel Wallerstein, 'The unintended consequences of Cold War area studies', in Chomsky et al., *The Cold War and the university*, pp. 195–231; Bruce Cumings, 'Boundary displacement: area studies and international studies during and after the Cold War', in Simpson, ed., *Universities and empire*, pp. 159–88.

<sup>64</sup> Ron Robin, *The making of the Cold War enemy: culture and politics in the military-intellectual complex* (Princeton, NJ, 2001), pp. 24–5. For a helpful survey of the behavioural sciences as they stood in the early 1960s, see Bernard Berelson, ed., *The behavioral sciences today* (New York, 1963).

order.<sup>65</sup> The proponents of behavioural science and systems theory promised that social reform was a matter of the correct application of scientific expertise, deployed with the same dispassionate regard for efficiency that guided research in engineering. Determining what ‘behavioural science’ or ‘systems theory’ meant was much harder than acknowledging their power as slogans for an equally indeterminate, yet all-encompassing, war effort. They provided an assurance of social control whilst avoiding the connotations of ‘social planning’ associated with the left.

The studies of the human sciences described thus far have a noticeably critical thrust. Whereas historians of science have moved on to discussing the ambiguities of Cold War research, commentators on the human sciences worry consistently about the perversion, or repression, of research agendas, and of the co-option of the sciences of man by a seemingly irresistible military-industrial complex. What explains this difference in tone? Three reasons suggest themselves. First, in the eyes of many critics, the project of rational planning and technocratic politics that is attributed to the post-war human sciences was inherently undemocratic. The use of expert knowledge to manipulate nature was one thing; the attempt to apply ‘expertise’ – with the same presumptuous claim to scientific authority – in order to control autonomous human beings was another. Second, the Cold War human sciences have been subjected to the critical ideological analysis of Cold War constraints prevalent among cultural historians. The human sciences are susceptible to this treatment because the key concepts of these disciplines – democracy, rationality, sociability, kinship, and so on – have long resonated in non-academic American culture, albeit in less systematic forms. Third, the confrontational literature on the human sciences in Cold War America is partly a by-product of a more general conflict: the battle between different approaches to the study of humanity. It would be easy to characterize this dispute as one between Cold War positivists committed to scientific models for humanistic inquiry, and post-1960s dissidents espousing the methodological pluralism of hermeneutics, historicism, and institutional analysis.<sup>66</sup> But it takes place along more than one axis: conservatism–radicalism, objectivism–relativism, and public–secret are just a few of the contrasting terms that have framed this debate. In trenchant critiques of the impact of McCarthyism and military patronage, we are witnessing an attempt to discredit certain developments in the human sciences and promote alternative possibilities. Much commentary on the Cold War human sciences is a contribution to a *Methodenstreit* in the guise of investigative history.<sup>67</sup>

### III

The desire to repudiate the methodological and political commitments of the post-war human sciences has led many historians to elevate the Cold War context above all others in

<sup>65</sup> Agatha C. Hughes and Thomas P. Hughes, eds., *Systems, experts, and computers: the systems approach in management and engineering, World War II and after* (Cambridge, MA, 2000); Steve J. Heims, *The cybernetics group* (Cambridge, MA, 1991); Hounshell, ‘The Cold War, RAND, and the generation of knowledge’, pp. 250–7.

<sup>66</sup> George Steinmetz, ed., *The politics of method in the human sciences: on positivism and its epistemological others* (Durham, NC, 2005).

<sup>67</sup> Mark Solovey has done most to develop this insight in his study of the methodological implications for the social sciences of the fallout from the Project Camelot controversy. See Solovey, ‘Project Camelot and the 1960s epistemological revolution: rethinking the politics–patronage–social science nexus’, *Social Studies of Science*, 31 (2001), pp. 171–206.

their accounts of the Cold War humanistic disciplines. The invocation of RAND, the CIA, or the National Security State (the latter made more ominous by the frequent use of capital letters) is in itself enough to raise the spectre of compromised research. But should it? The difficulty with these narratives is that firm proof of co-optation or distortion is hard to elicit. George Reisch imagines that an unmolested Unity of Science movement might have provided the basis for a philosophical critique of American Cold War pretensions.<sup>68</sup> But he does not adequately consider whether it was marginalized not because it was politically radical or cosmopolitan, but because it was subjected to devastating critiques, on philosophical and cultural grounds, once it reached American soil.<sup>69</sup> One can also ask whether the Cold War was decisive for the rise of mathematical neoclassicism in economics or 'behaviouralism' in political science. Of course, these forms of analysis were encouraged by funding bodies. Due to lack of support from the foundations, government, and university administrations, rival research programmes were 'crowded out', rather than consciously repressed. But one cannot claim with any certainty that, for example, behavioural science or systems analysis would not have become hegemonic without preferment. Certainly, it seems clear that the growing secularization and professionalization of the university during the first half of the twentieth century was already inducing interests in technical, scientific, and universalistic forms of inquiry.<sup>70</sup>

All of which is to say that the intellectual dynamics of the Cold War human sciences are harder to pin down than some critical commentators have supposed. As historians of science have lately discovered, the relations between academic research and its sponsors were ambiguous: the military-industrial complex did not always call the tune. A growing number of studies of the human sciences are beginning to draw similar conclusions. Perhaps the most convincing of these charts the fortunes of modernization theory in post-war America. Since the late 1990s, a cohort of scholars, including Michael Latham, Nick Cullather, David Engerman, and Nils Gilman, have explored the influence of theories of 'development' across many dimensions of American intellectual and political life during the twentieth century. As a novel framework for interdisciplinary social scientific research; as a means of understanding world politics during the Cold War; and as an expression of modernist ambitions for social engineering, doctrines of modernization exercised a profound ideological attraction after the Second World War. At the height of their influence, definitions of modernization ranged from the technical specifications of Parsonian structural-functional theory to utopian longings – sometimes within the same text. 'Modernization', wrote the political scientist and modernization theorist David Apter in 1965 'is a special kind of hope. Embodied within it are all the past revolutions of history and all the supreme human desires.' A modernizing society, argued Apter, was defined by

<sup>68</sup> Reisch, *How the Cold War transformed philosophy of science*, pp. 387–8.

<sup>69</sup> Bruce Kuklick, 'Modern anglophone philosophy: between the seminar room and The Cold War', *Modern Intellectual History*, 3 (2006), pp. 547–57. On American intellectuals' rejection of what seemed to them an overly narrow construal of the Unity of Science by logical empiricists, see David Hollinger, 'The unity of knowledge and the diversity of knowers: science as an agent of cultural integration between the two World Wars', in Geert Somsen and Harmka Kamminga, eds., *Pursuing the unity of science: ideology and scientific practice between the Great War and the Cold War* (forthcoming).

<sup>70</sup> Hollinger, *Science, Jews, and secular culture*; David Hollinger, 'How wide the circle of the "we"?' American intellectuals and the problem of the ethnos since World War II', in Walters, ed., *Scientific authority & twentieth century America*, pp. 13–31. On the pre-war diffusion of the analytic tradition in American philosophy, see Joel Isaac, 'W. V. Quine and the origins of analytic philosophy in the United States', *Modern Intellectual History*, 2 (2005), pp. 205–34.



‘the growth of lending and fiscal devices, the need to support modern armies, the application of technologies in competitive market situations, and the influence of trade and voyages on the scientific spirit’.<sup>71</sup> This sounded like American historical development transmuted into a normative theory, as indeed it was. Modernization theory was elaborated by American social scientists in the era of decolonization, when the political direction of young states in Asia, Africa, and Latin America was far from clear. The USSR offered to post-colonial nations the vision of a socialist modernity. Thus, among American policymakers and their advisers, modernization theory, ‘as both an intellectual theory and a political practice, defined a liberal, linear path to “progress” in contrast to dialectical and revolutionary frameworks. It presented America’s past as a blueprint for the world’s future and put history on America’s side.’<sup>72</sup>

The current crop of histories of modernization theory flourished first in the historiography of American foreign relations. As noted above, one aspect of the cultural turn in Cold War studies has been the examination of the tropes that guided the formulation of foreign policy. Like notions of gender, race, and poverty, conceptions of modernization, as Michael Latham and Nick Cullather were among the first to demonstrate, helped to structure the *Weltanschauung* of policymakers during the Cold War.<sup>73</sup> Modernization theory is particularly interesting because its historians have explored its resonance on all three levels of the cultural turn. Thus, ‘modernization’ was not only a normative vocabulary for Cold War policymakers; it was a cultural good that could be exported in the form of economic aid, technology, and expertise.<sup>74</sup> Finally, it expressed and refined ideals about modernity found in American culture, broadly construed, in the post-war era. Modernization, as Latham aptly puts it, ‘functioned as far more than a narrow “political weapon”; it was an element of American culture, an ideology shared by many different officials, theorists, and media sources about the nation, its historical “development”, and its ability and duty to transform the “less developed” around it’.<sup>75</sup> Latham has explored how this ‘ideology’ was refined in the post-war social science establishment by enterprising scholars like Walt Rostow, Max Millikan, Lucian Pye, and Gabriel Almond, and then carried over into nation-building programmes in the Kennedy administration.<sup>76</sup>

In addition to synthesizing elements of the cultural turn in Cold War history, Latham has explicitly described modernization theory as a continuation of the project of salvaging American exceptionalist ideology in the form of social scientific laws, which was first identified by Dorothy Ross.<sup>77</sup> In the publications of David Engerman and Nils Gilman, the

<sup>71</sup> David Apter, *The politics of modernization* (Chicago, 1965), pp. 1, 43.

<sup>72</sup> Michael E. Latham, ‘Modernization’, in Porter and Ross, eds., *Cambridge history of science*, vii, p. 722.

<sup>73</sup> Michael E. Latham, ‘Ideology, social science, and destiny: modernization and the Kennedy-era Alliance for Progress’, *Diplomatic History*, 22 (1998), pp. 199–229; Nick Cullather, ‘Development? It’s history’, *Diplomatic History*, 24 (2000), pp. 641–53.

<sup>74</sup> See especially Nick Cullather, ‘Miracles of modernization: the green revolution and the apotheosis of technology’, *Diplomatic History*, 28 (2004), pp. 227–54.

<sup>75</sup> Michael E. Latham, *Modernization as ideology: American social science and ‘nation building’ in the Kennedy era* (Chapel Hill, NC, 2000), p. 13. On ideology as a crucial element in the formation of foreign policy, see Michael Hunt’s influential book *Ideology and U.S. foreign policy* (New Haven, 1987).

<sup>76</sup> On Rostow’s role in the Kennedy and Johnson administrations, see David Milne, ‘America’s Rasputin’: *Walt Rostow and the Vietnam War* (forthcoming).

<sup>77</sup> Latham, *Modernization as ideology*, p. 6.

history of modernization theory has begun to tackle some of the wider issues of social science, national identity, and the evolution of American liberalism that stimulated the work of Ross, Haskell, and Furner. The prolific Engerman has shown how conceptions of modernization among American intellectuals were inspired not just by narratives of American historical development, but also by a fascination with the modernizing project of Soviet Russia.<sup>78</sup> Attempts to construct representations of Soviet society occupied a variety of American policymakers and academics from 1917 onward. The rise of institutes for Russian research and Slavic studies began not in the Cold War, but in the 1920s and ebbed and flowed, with varying purposes, throughout the middle decades of the century. This perspective on both the long-term development of modernization theory and the role of area studies in framing American foreign relations allows Engerman to challenge some of the dogmas of Cold War historiography. He has proven one of the most effective critics of the view that area studies in general, and Sovietology in particular, were purely 'Cold War projects'. 'The Soviet challenge', Engerman observes of the interwar Slavic studies institutes, 'had very little to do with national security, but everything to do with ideas about social, political, and economic transformation'.<sup>79</sup> And even when multidisciplinary Russian research centres flourished during the early Cold War, the politically ecumenical and humanistically oriented interests of wartime Slavic studies continued to thrive alongside the behavioural and systems-analytic approaches that are often said to have been characteristic of Cold War thinking about the Soviet threat.<sup>80</sup> Elsewhere, Engerman has acutely observed that the best accounts of the human sciences during the Cold War 'manage to distinguish between events that happened *during* the Cold War and events that happened *because of* that conflict'. As such, it is those works 'that examine American intellectual life in the 1950s as connected to prior traditions and institutions – and not as purely a function of the U.S.–Soviet rivalry – [that] provide more effective and more convincing explanations of the impact of the Cold War on American thought'.<sup>81</sup> In concert with a cohort of young international historians, Engerman is now enlarging the geographical scope of his investigation of the evolution and applications of modernization theory to include American engagements – intellectual, political, and economic – with India, South-east Asia, and Africa.<sup>82</sup>

In his major work, *Mandarins of the future* (2003), Nils Gilman joins Engerman in rejecting 'the great canard' that modernization theory was 'just another cold war-driven anti-Communist creed'. But whereas Engerman examines the ways in which the Soviet Union provided a screen on to which American fantasies about economic development were projected over several generations, Gilman focuses on the self-conscious articulation of

<sup>78</sup> David C. Engerman, *Modernization from the other shore: American intellectuals and the romance of Russian development* (Cambridge, MA, 2003).

<sup>79</sup> David C. Engerman, 'New society, new scholarship: Soviet studies in interwar America', *Minerva*, 37 (1999), pp. 25–43, at pp. 40–1.

<sup>80</sup> David C. Engerman, 'The ironies of the Iron Curtain: the Cold War and the rise of Russian studies in the United States', *Cahiers du Monde russe*, 45 (2004), pp. 465–96.

<sup>81</sup> David C. Engerman, 'Rethinking Cold War universities: some recent histories', *Journal of Cold War Studies*, 5 (2003), pp. 80–95, at p. 86, 88.

<sup>82</sup> See the essays by David C. Engerman, Michael Mahoney, Victor Koschman, and Gregg Andrew Brezinsky in David C. Engerman, Nils Gilman, Mark H. Haefele, and Michael Latham, eds., *Staging growth: modernization, development, and the global Cold War* (Amherst, MA, 2003). See also Engerman, 'The romance of economic development'.

conceptions of modernity in post-war American social thought. As a moment internal to American intellectual history, modernization theory was 'as much about defining America as it was about attacking communism'.<sup>83</sup> In his more ambitious moments, Gilman portrays modernization theory as a form of high-modernist, Enlightenment-inspired social thought. Modernization theory is presented as the expression of a quintessentially modern desire to 'connect the various dimensions of the macrohistorical quantum known as modernity'.<sup>84</sup> Yet Gilman's claims on this score are in places unconvincing. Insofar as linear narrative constructs our sense of historical time and makes possible the intelligibility of the past, then the kind of teleological understanding of human development found in modernization theory is just one instance of the general structure of historical consciousness as it is manifested in the social sciences.<sup>85</sup> Thus, Gilman's attempt to make an eclectic lineage of social theory and public ideology into a unitary tradition of 'progressive teleologies', which culminates in modernization theory, seems arbitrary in its selections.<sup>86</sup> In Gilman's dizzyingly compressed genealogy of modernization theory, Hegel rubs shoulders with Henry Maine, Atatürk, and Daniel Bell. The point is not that Gilman is erroneous in his selections; it is that it is hard to think of a modern thinker who could *not* be included. If a vision of history as a progression toward 'modernity' counts as a prototypical expression of modernization theory, then other candidates must include Kant, the Whig historians, the classical sociologists, mid-twentieth-century prophets of *posthistoire*, and so on.<sup>87</sup> By virtue of its archetypal explanatory structure, modernization theory can be elevated into a theory of world-historical importance; but what makes it bear such significance is its evocation of deep-lying Western conceptual habits, on which modernization theory has no greater claim than numerous other conceptual systems. Perhaps aware of the difficulty of pinning down the broader history of modernization doctrines, Gilman spends most of his book analysing the immediate post-war contexts of modernization theory. Here he is much more persuasive. The heart of *Mandarins of the future* consists of a series of case studies of the genesis and elaboration of modernization theory, which together describe its trajectory from Talcott Parsons's Department of Social Relations at Harvard, through the Social Science Research Council's Committee on Comparative Politics, and toward its apotheosis and decline in the foreign policy doctrines formulated by Walt Rostow and his colleagues at CENIS. These 'microhistories', as Gilman would have it, parallel the enterprise of the mapping of institutional networks and research programmes that has distinguished the history of science literature on the Cold War.

Despite the excellence of these case studies, Gilman remains, as Thomas Haskell has noted, in a bind. For whilst the long-term historical background of modernization theory remains vague, Gilman's triangulation of modernization models according to the mores of post-war American liberalism risks making 'the erroneous impression that the truly

<sup>83</sup> Nils Gilman, *Mandarins of the future: modernization theory in Cold War America* (Baltimore, MD, 2003), p. 14. For an abbreviation of Gilman's account of the rise, fall, and afterlives of modernization theory, see Nils Gilman, 'Modernization theory, the highest stage of American intellectual history', in Engerman, Gilman, Haefele, and Latham, eds., *Staging growth*, pp. 47–80.

<sup>84</sup> Gilman, *Mandarins of the future*, p. 25.

<sup>85</sup> See Paul Ricoeur, *Time and narrative*, 1, trans. Kathleen McLaughlin and David Pellauer (Chicago, 1984), part II.

<sup>86</sup> Gilman, *Mandarin of the future*, pp. 25–30.

<sup>87</sup> On mid-twentieth-century doctrines of the end of history, see Lutz Niethammer, *Posthistoire: has history come to an end?*, trans. Patrick Camiller (London, 1992). For a broader consideration of modern doctrines of historical culmination, see Perry Anderson, 'The ends of history' in *A zone of engagement* (London, 1992), 279–375.

significant antecedents for modernization theory date no further back than the 1940s (or even 1959), making the entire project of modernization easy to dismiss as nothing more than an expedient reflex of cold war strategy'.<sup>88</sup> As noted above, this is the opposite of Gilman's intentions. But Haskell's concern rears its head because of the lack of *middle-range contextualizations* that could trace in sufficient detail post-war contributions to modernization doctrine back into the preceding half-century of American – and indeed transatlantic – social thought. Such an approach would lessen the temptation to raid the canon of post-Enlightenment discourse on modernity in search of the antecedents of modernization theory, and encourage in its stead the tracing of concrete institutional and intellectual developments between the early twentieth-century professionalization of the human sciences and their post-war trajectories. The task of rethinking periodization and joining hitherto poorly connected research fields stands as one of the primary challenges in contemporary American intellectual history.

#### IV

At the present time, there are signs that moves to meet these challenges are being made. A shift in periodization is beginning to take place in the history of the post-war American human sciences: away from the Cold War as a unitary phenomenon and toward an appreciation of developments in the sciences of man that cut across World War and Cold War alike. This would repeat a change in perceptions of the place of the Cold War in twentieth-century history that has occurred within both the history of science and international history in the last decade.<sup>89</sup> Particularly noteworthy is the appearance of Theodore Porter and Dorothy Ross's landmark edited volume on *The modern social sciences* (2003) in *The Cambridge history of science* series, which gives historians the opportunity to follow distinctive strands in the development of the human sciences as never before.<sup>90</sup> This volume is distinguished above all by its combination of a strong basic account of the study of humanity from the Enlightenment to the present, on one hand, with complex thematic issues concerning the diffusion and diverse applications of the social sciences, on the other. As such, although some of the essays are of use primarily as topic outlines with helpful bibliographical information, *The modern social sciences* is much more than a survey. It contains original and thought-provoking chapters on such topics as race, intelligence testing, and cultural relativism by the leading experts on those subjects. The historian's capacity to tie together issues in social science from different epochs or regions has thereby been greatly enhanced.

On a smaller scale, a growing band of intellectual historians have begun to explore the links between key periods in the development of the American human sciences. As discussed above, David Engerman's work on Slavic studies institutes in interwar and post-Second World War America provides a model of what a middle-range contextualization should look like. Engerman has consciously sought to traverse traditional boundaries between epochs in his analysis of American visions of the USSR. A similarly fruitful area of inquiry has centred on the career of the mandarin but enormously influential social theorist Talcott Parsons. Parsons bulks large in an increasing number of literatures, from the 'new

<sup>88</sup> Thomas Haskell, 'Modernization on trial', *Modern Intellectual History*, 2 (2005), pp. 243–4.

<sup>89</sup> In the field of international history, David Reynolds has reconsidered the periodization points of twentieth-century history. See especially Reynolds, '1940: fulcrum of the twentieth century?' *International Affairs*, 66 (1990), pp. 325–50. <sup>90</sup> Porter and Ross, eds., *Cambridge history of science*, vii.

sociology of ideas' to the history of modernization theory.<sup>91</sup> After his theory of social action came under attack from the left in the late 1960s, Parsons all but dropped out of the picture in sociology and social theory.<sup>92</sup> But Parsons was at the centre of several key intellectual networks during the Cold War, and it is therefore unsurprising that he has been rediscovered by historians.

It has been claimed, often with good reason, that Parsons's depiction of advanced societies as 'action systems' formed the basis for the new wave of human sciences that broke during the Cold War. This assertion, however, has tended to obscure the origins of Parsons's project in the interwar conjuncture. Reading Parsons on his own terms means reconstructing the intellectual and political commitments that inspired his formative publications as a social theorist, especially his 1937 tome *The structure of social action*.<sup>93</sup> With regard to the articulation of middle-range contextualizations for the Cold War human sciences, what makes Parsons so interesting is that this giant of post-war social thought nurtured his theory of human action on the historically fertile ground of interwar Protestant reform ideology, technocratic social liberalism, and a deep engagement with classical European sociology. As such, the historian of Parsonian social thought is forced to chart its multifaceted development between the 1920s and 1960s. The sociologist Uta Gerhardt has undertaken some of this work in her admiring intellectual biography of Parsons.<sup>94</sup> Gerhardt finds in Parsons a scholar who dedicated his wide-ranging and often esoteric writings to the preservation and extension of democracy. Whilst it seems clear that Parsons did indeed seek to update and defend democratic theory for a socially complex age, Gerhardt's thesis is invoked less as a starting point for thinking about Parsons's place among democratic theorists at mid-century, and more as a means of rehabilitating Parsons in the wake of the frequently vituperative criticism that has met his work since the 1960s.<sup>95</sup> A more promising approach, from a historian's point of view, is Howard Brick's placement of Parsons within the tradition of social liberalism and 'postcapitalist' theorizing that stretches from the eve of the First World War to the recession of the early 1970s. Brick offers us a glimpse of what the intellectual history of the post-Second World War decades might look like once the Cold War provides just one – rather than the only – set of

<sup>91</sup> For a sociologist of ideas' take on Parsons, see Charles Camic, 'The making of a method: a historical reinterpretation of the early Parsons', *American Sociological Review*, 52 (1987), pp. 421–39; Charles Camic, 'Introduction: Talcott Parsons before *The structure of social action*', in Charles Camic, ed., *Talcott Parsons: the early essays* (Chicago, 1991), pp. ix–lxix; idem, 'Reputation and predecessor selection: Parsons and the institutionalists', *American Sociological Review* 57 (1992), pp. 421–45. On Parsons and modernization theory, see Gilman, *Mandarins of the future*, pp. 74–94; Latham, *Modernization as ideology*, pp. 30–6; Engerman, 'The romance of economic development', pp. 23–4.

<sup>92</sup> There was a brief Parsons revival in the years following his death in 1979, spearheaded by Jeffrey Alexander and a group of German social theorists including Jürgen Habermas and Niklas Luhmann. See Jeffrey C. Alexander, *The modern reconstruction of classical thought*, IV: *Talcott Parsons* (Berkeley, CA, 1983); idem, 'The Parsons revival in German sociology', *Sociological Theory*, 2 (1984), pp. 394–412; Jürgen Habermas, *The theory of communicative action*, II: *The critique of functionalist reason*, trans. Thomas McCarthy (Cambridge, 1987), pp. 199–299.

<sup>93</sup> Talcott Parsons, *The structure of social action* (New York, 1937).

<sup>94</sup> Uta C. Gerhardt, *Talcott Parsons: an intellectual biography* (Cambridge, 2002).

<sup>95</sup> Ringing rejections of Parsonian sociology can be found in C. Wright Mills, *The sociological imagination* (New York, 1959), pp. 25–49; Alvin W. Gouldner, *The coming crisis of Western sociology* (London, 1971); Robin Blackburn, ed., *Ideology in social science: readings in critical social theory* (London, 1972), pp. 32–60.

elements from which explanations for the evolution of the post-war human sciences are drawn.<sup>96</sup>

Similarly multicontextual accounts of other branches of the American human sciences are beginning to emerge. Sarah Igo's exploration of the history of 'scientific' polling, for example, shows how social scientific techniques, conceptions of 'the public' and the 'average citizen', and the interests of industry intertwined in the application of a new social technology.<sup>97</sup> Public opinion surveys addressed a wide variety of needs during the interwar, wartime, and Cold War years. But the history of their use and cultural resonance cannot be reduced to post-war national security expedients any more than to the purely scientific interests of social scientists. Jamie Cohen-Cole has shown another way of linking post-war developments in the human sciences to tangible and persistent threads in political and cultural contestation. Cohen-Cole anchors the shift from behaviourist to cognitivist paradigms in American psychology during the Cold War in debates about democratic character and the ethics of scientific inquiry that have roots deep in twentieth-century American history.<sup>98</sup>

The deeper historians delve into such topics, the likelier it is that the historiography of the post-war human sciences will encompass a thick and diverse bundle of genealogies. Whilst these developments are to be encouraged, much work remains to be done. In some cases, histories of particular human science disciplines are not available; or they are insufficiently related to developments in neighbouring fields. Another problem is that intellectual historians of the turn-of-the-twentieth-century period and the post-Second World War era have yet to establish a detailed and consistent dialogue. Finally, whilst efforts in the field must be directed to weaning scholars off a reductionist reading of the post-war human sciences, the question of the proper weight to be accorded to the Cold War context remains unanswered. The purpose of this review has been to suggest, not that the Cold War paradigm should be overthrown, but that it must be placed within a more complex and nuanced perspective. Both the overall shape and the finer details of that perspective, however, have yet to be determined.

<sup>96</sup> Howard Brick, *Transcending capitalism: visions of a new society in modern American thought* (Ithaca, NY, 2006); idem, 'The reformist dimension of Talcott Parsons's early social theory', in Thomas L. Haskell and Richard F. Teichgraber III, eds., *The culture of the market: historical essays* (Cambridge, 1993), pp. 357–96; idem, 'Talcott Parsons's "shift away from economics"', *Journal of American History*, 87 (2000), pp. 490–514.

<sup>97</sup> Sarah Igo, "'A gold mine and a tool for democracy": George Gallup, Elmo Roper, and the business of scientific polling', *Journal of the History of the Behavioral Sciences*, 42 (2006), pp. 109–34; Sarah Igo, 'From main street to mainstream: Middletown, Muncie, and "typical America"', *Indiana Magazine of History*, 101 (2005), pp. 239–66.

<sup>98</sup> Jamie Cohen-Cole, 'The reflexivity of cognitive science: the scientist as model of human nature', *History of the Human Sciences*, 18 (2005), pp. 107–39.