



*Courtesy University of California Press.*

Fig. 1. Card No. 14 for the Pacific Version of the Thematic Apperception Test. This is the only one of the images which came directly from the original, standard TAT.

# Towards a Data Base of Dreams: Assembling an Archive of Elusive Materials, c. 1947–61

*by Rebecca Lemov*

‘Wholly new forms of encyclopedias will appear . . .’  
Vannevar Bush, ‘As We May Think’, 1945<sup>1</sup>

In the summer of 1947 forty-one scientists of human behaviour set sail to the south-west Pacific on a mission that was part of a greater mission. The first aim was to make a close study of small villages of Micronesian islanders and their way of life. Bits of land arrayed over a million miles of ocean, each remote atoll (Yap, Truk, Ifaluk, Rongelap and many others) displayed island by island a different form of rite and ritual, a different arrangement of political succession and land-tenure. Scholars set out to understand and to describe these customary ways of doing things in systematic terms.

The larger purpose was to grasp and, if possible, to graph or otherwise measure something less easy to observe: the varieties of human subjectivity found on each atoll. Researchers would peer into the heads and minds of their subjects, and draw out data amenable to scientific use: what did a Yapese man, a Trukese woman, or an Ifalukan child dream about? What were their life stories? traumas? fears? What did they value? What fleeting thoughts crossed their minds, what longtime beliefs did they cling to? In short, teams of anthropologists, sociologists, ‘human geographers’ and psychologists aimed not only to collect the brute material stuff of each culture but to capture what they called ‘subjective materials’ – exactly those parts of human existence that elude capture.

The project, called the Coordinated Investigation of Micronesian Anthropology, or CIMA, was an attempt to be more comprehensive than ever before in the collecting of complete information – a total data set, in effect – about a circumscribed area of investigation. As a United States Naval press release announced, the Micronesian undertaking was the most complete study ever attempted of a given place and its peoples.<sup>2</sup> In pursuit of this goal researchers gathered reams of data, loosely in the areas of cultural milieu and social practices, but also covering such biological topics as the physiological after-effects of a starvation diet, the cause of a recent fall-off in Micronesian birth-rates and the fate of the large native land-snail. The data arrived in the United States where teams of assistants and secretaries amassed, processed, labelled and filed it. Soon sets of

anthropological files at the National Research Council of the National Academy of Sciences bulged with the project's gleanings, as well as data from related NRC projects on topography, flora and fauna.

All told, an 'urge toward totality' animated and to a great extent defined the empirical arm of the twentieth-century human and social sciences. More and more the reach of empiricism extended from the 'solid' observables of cultural materials to the less solid artefacts of mental attitudes. In the Coordinated Investigation, as in many other neo-encyclopedic efforts, there was a sense of the efficient filling in of gaps characteristic of 'universal knowledge projects', as Mary Poovey has described them.<sup>3</sup> Of course, such universal projects were not new to the twentieth century; the Enlightenment *Encyclopédie* constitutes perhaps the prototypical example of the aspiration to gather by methods taxonomical, numerical or statistical all knowledge in a single place within a scholarly holding apparatus. However, in the twentieth century interest in their pursuit took a different form. In Micronesia the aim to collect the *universitatum* or sum of all knowledge hinged on a new confidence in special devices for collecting as well as an ambition to be properly systematic about defining totality. The enterprise bore the hallmarks of taxonomic zeal, encyclopedic thoroughness and a weaving of experimental inclinations with scientifically acceptable forms of representation. Furthermore the link between representation (gathering knowledge) and intervention (acting on that knowledge) was growing closer than ever before.<sup>4</sup> The more one could know about life and how it was lived, so the thinking went, the more one could change things for the better. Thus it made sense that the project's publications addressed an array of topics that otherwise might have seemed disparate and random, including sex ('Premarital Freedom on Truk: Theory and Practice'), money ('Native Money of Palau') and the use of things ('Material Culture of Kapingamarangi'), as well as some more specialized areas of inquiry ('On the History of the Trukese Vowels').

Big as it was, the Micronesian project was part of something bigger. The more ambitious if more elusive goal was to collect traces of subjectivity itself, to make an archive of the inner contents of the mind. Or, rather, to collect traces of the inner contents of many minds. Targeted islands, such as the Marshalls and Carolines in Micronesia, had been the sites of fierce battles during the island-hopping campaign of the American military on its way to Japan. Not long after the counting of the dead, the surrender of the Japanese and the handing over of the territory to United States rule, the large-scale gathering of subjective states of mind began. Researchers walked from hut to hut administering a welter of projective psychological tests – inkblot, storytelling, 'moral-ideological'. These too produced 'data': data of the self, data of personality. More than this, the traces of the mind's activities – specifically people's dreams, fleeting states of madness and desire, and the hopes and fears these betokened – went on to make up a large proto-database of 'subjective materials' not only from Micronesia

but from many other areas of the world. Dreams and other personal experiences of people living in what were sometimes called 'little-disturbed' cultures in hard-to-reach places: these, researchers felt, were essential data for understanding humanity's workings. By the mid 1950s an experimental databank held nearly 30,000 pages of 'rich personality materials from over 70 cultures which have been collected by means of projective tests, life histories, dreams and interviews'.<sup>5</sup> From the Micronesian investigation alone issued the following: William Lessa's *Modified TATs* [Thematic Apperception Tests] of 99 *Ulithian Males and Females*; Melford Spiro's *156 Rorschachs, 126 Modified TATs, 83 Stewart ERTs* [Emotional Response Tests], *82 Bavelas MITs* [Moral Ideological Tests], and *54 Dreams of Ifaluk Men, Women, and Children*; and, in 1961, David Schneider's *50 Yap Sentence Completion Tests*. Archives, then, of dreams and other records of the elusive and fleeting parts of the inner life.

This essay is about the 'nesting' of these two projects in the years following World War Two, the one to collect material elements of different cultural groups (objective data, externally observable), and the other to collect that which sits at the far edge of materiality, the just visible or barely visible stuff of the mind's workings (subjective data internally not yet or not quite observable). How were the two undertakings related and what form did their co-collection and co-storage take? Note that I speak of two projects, and two targets, the objective and the subjective, but in fact they were not always neatly separable: most projects aimed at 'totality' ultimately, and the same investigator might participate, at times, in both types of enterprise. Here the focus is on how the latter project, of collecting data of the inner life, emerged and related to the aims of the former. The essay considers in turn (1) the projective testing technologies used to gather and make concrete subjective materials, (2) written manifestos for a 'science of subjectivity' and (3) some of the data-gathering innovations that researchers drew on to carry out a project whose ambition was perhaps unparalleled. How did this undertaking reflect on the persistent question of the elusiveness of evidence and the quest, ardent and urgent in equal measure, to circumscribe and render concrete that which resists being so treated? Is it inevitable to contemplate, say, the dream of a Palauan witch, a mental patient, or an American college student (as subsequently reported to an anthropologist or psychologist) and see something that is capable of being rendered as data, placed in an archive, and circulated like any other 'bit' of information? What were the forces that brought such data into being, and what was their fate? These topics appear to be matters of especial interest today, when the 'data-basing' of everything seems a relentless, positive and ineluctable process. Here, in tracking the birth of a method and apparatus for collecting certain kinds of evidence and arranging them in an archive, the concern lies less with the eventual contents of the data itself and more with the urge to gather the difficult-to-collect, that which lies at the very edge of visibility.

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With the invention of Hollerith codes, IBM machines, punch cards, Microcard systems, and myriad new devices for securing massive amounts of social and human data around World War Two, a new technological path to the old problem of ordering the universe, a new way of resuscitating a 'way to true being' – in Max Weber's phrase summing up the original goal of the human sciences – seemed to reveal itself.<sup>6</sup> The postwar American social sciences made a machine-generated truth for a mass society, not in the name of God any longer but in the name of science and society. Apparatuses designed to 'capture' elements of subjectivity and the subjective apprehension of the ongoing stream of experience multiplied in the 1940s. As Gregory Bateson argued in 1942, large-scale fact-gathering of the data of people's lives was imperative for the anthropologist, whose 'first task is the meticulous collection of masses of concrete observations of native life'.<sup>7</sup> (Bateson and Mead's pioneering study of Balinese socialization techniques led the way to the attempt to capture the subtle processes by which a human infant metamorphosed into a particular kind of human being.) Soon, a range of proto-databases arose to capture such masses of observables: the University of Chicago Committee on Human Development embarked on its 1942–7 collections of data on Indian life histories and psychological makeup; the Harvard Social Relations Department's Five Cultures Project collected, coded, and filed records of values and beliefs in a designated 'field laboratory' in the New Mexico desert from 1949 to 1953; some years later the Harvard Laboratory of Human Development's Six Cultures Project collected records of socialization and attitudes on an even more ambitious scale. Like-minded examples from sociology include the Lazarsfeld-Stanton Program Analyzer (first tested 1942–43), a device to capture radio listeners' emotional responses to an ongoing morale-boosting program; Robert Freed Bales's 'interaction recorder', originating in 1947, that measured and produced data for the experience of inter-subjectivity among groups of three to nine people engaged in an exchange of information. In Britain, the Mass-Observation collaborative project, initiated in the 1930s, continued to collect all kinds of data, including diary accounts of daily life and even dreams as research materials. Researchers built all of these data-gathering devices out of a congeries of available pre-electronic or quasi-electronic technology around the same time as the Micronesian Coordinated Investigation described here.

Yet the problems which the measuring and fact-gathering machines were designed to eliminate (of inexactitude and inaccuracy in measurement), through the very workings of the machines instead mushroomed and multiplied. As Nathan Glazer pointed out: '[T]he contemporary social scientist, instead of studying a social actuality to the limited and tentative extent he can, too often prefers to devote himself to the multiplication of his special measuring rods, all suffering the same congenital inaccuracy'. The more the

measuring rods were fine-tuned, the more inaccuracy and indeterminacy they betrayed.

What follows is an account of one of those ‘measuring rods’ – a projective test that took the inner contents of the subjective self as data, and rendered it useful, among other things, for the purposes of the Coordinated Investigation of Micronesia.

#### TECHNOLOGY FOR RENDERING DATA OF THE INNER SELF: THE PROJECTIVE TEST

How did investigators in 1947 begin to collect the uncollectable? How did they isolate the ‘intimate laws’ of the ‘irresponsible incense of the imagination’ (to borrow from Borges)?<sup>8</sup> How, at the same time, did they expand the scope of totality, even as the project of total knowledge-gathering bore, as I have argued above, a built-in tendency towards alienation? To address these problems, a group of mostly American psychological and anthropological experts brought projective psychological tests into heavy rotation. Researchers envisioned these tests as apparatuses tailor-made for the capture of subjectivity: once they were properly standardized and regularized, they worked to extract materials directly from the stronghold of the self. Collecting such materials was vital to ‘a search for behavioral indices that would be operationally and conceptually equivalent cross-culturally’.<sup>9</sup> In other words, the search was underway for a universal accounting of all kinds of humanly possible actions and thoughts – to make a science of why people think and do one thing rather than another.

The linkage of test to self was there from the start. As Galison describes it, the 1917–21 development of the Rorschach, the queen of projective tests, constituted a method for the ‘microestablishment of the self, not in abstract but in the routinized procedure followed in thousands of tests’.<sup>10</sup> Pre-assembly line, it worked like a map to the assemblage that collectively made up the inner landscape of a person. Via such tests, the inner stuff of the self was writ large, as if projected on a screen. Projective tests and, especially, cross-culturally acceptable projective tests, fuelled a movement to collect world-wide data of subjectivity. A science of subjectivity garnered the label ‘culture and personality’ in the United States and began to grow in the 1920s and 1930s. With the parallel spread of Freudian universalism in Europe and America – that is, the hypothesis that Freud’s theories were able to account for the operations of every example of the human psyche – interest in homing in on the hidden lives of others grew too. In a 1924 address, British anthropologist Charles Seligman caught the common hope when he suggested ‘the beginning of a purposive investigation of the unconscious among non-European races’ through the study of their dreams.<sup>11</sup>

After the Second World War tests such as the Rorschach, the Thematic Apperception Test (TAT), and the Draw-A-Person spread strongly into ethnographic endeavours, even as psychologists refined and strengthened

them and anthropologists trained in their administration. The TAT deserves special mention: while never achieving the iconic popular status of the Rorschach, it rose to unparalleled prominence among cross-cultural researchers due to the common belief that its exactitude in measuring subtle aspects of the inner self in relation to external environment was unmatched. It could also be fine-tuned to target different cultural milieux: special Pacific Island and Native American versions of the test proliferated. At first, however, its inventors had made no such claim.

When in 1935 Harvard psychology professor Henry Murray and his lab assistant Christiana Morgan together published an article on a new test of their devising, the Thematic Apperception Test or TAT, subtitled 'A method for investigating fantasies', they were not so much interested in exact measurement as in penetrating efficacy. The test was to be a way of making the invisible visible, the irretrievable retrievable: 'My idea', Murray said in a later interview, 'was to illuminate the unconscious processes – that were repressed – of which the subject was not aware. That was the whole point of it'.<sup>12</sup> They solidified their invention with a 1938 volume from Harvard University Press called *The Thematic Apperception Test* and reissued the manual in 1943, again with Harvard University Press, by which time the test was a star, a new light in the field of personality psychology.<sup>13</sup>

The two originally devised the test at a time when a milieu of extreme behaviourism prevailed, limiting psychological inquiry to a strict human-science version of operationalism: only that which could be seen could be measured, and only that which could be measured could be seen; or, as James Broadus Watson put it in his notorious 1913 'manifesto' for behaviourism:

I believe we can write a psychology, and . . . never use the terms consciousness, mental states, mind, content, introspectively verifiable, imagery, and the like. . . . It can be done in terms of stimulus and response, in terms of habit formation, habit integrations and the like. . . . My final reason for this is to learn general and particular methods by which I may control behavior.<sup>14</sup>

A whole generation took up the cause, and even John Dewey declared himself 'a well-wisher'.<sup>15</sup> Guided by a shared contrarian impulse, Morgan and Murray wanted to offer a way of exploring the unconscious contents of the personality *in themselves*, and did not hesitate to speak of 'investigating . . . fantasies' in a systematic manner, much less mental states or consciousness.<sup>16</sup>

Henry Murray was a wealthy Boston Brahmin trained as a biochemist who in 1931, aged 33, almost out of the blue, had been offered the head post at Morton Prince's Harvard Psychological Clinic. He was in fact making a critique, by means of the operations of the test itself, of almost the entire body of professional psychology at the time. Murray was, in short,

disgusted with what he saw others doing: his colleagues, racing to become experimentalists by the endless running of rats through mazes, 'had trained in incapacity. They were trained to have tunnel vision'. Obsessed with quantifying and precision, his new cohort shied from the unruly, the 'darker, blinder areas of the psyche'.<sup>17</sup> In order to enter this dark, blind and unruly terrain the two invented their test.

The TAT consists of a series of thirty cards, each showing an ambiguous black-and-white drawing, the rendering of a photograph in most cases cut from a magazine such as the *Saturday Evening Post* or *Women's Home Companion*. The drawings, in Christiana Morgan's expressionist renderings, became more dramatic, in order to elicit revealing stories – they were designed to be so stimulating that they would spring loose stories that revealed the test-taker's preoccupations without the test-taker actually knowing she had revealed anything. 'As a rule, the subject leaves the test happily unaware that he has presented the psychologist with what amounts to an X-Ray picture of his inner self', observed Murray.<sup>18</sup> By getting the subject to focus on a phenomenon, the perceptive interpreter ('one with "double hearing"', as the researchers put it) will see that the subject 'is exposing certain inner forces and arrangements, wishes, fears, and traces of past experiences'.<sup>19</sup> Even today the TAT has its loyalists.<sup>20</sup>

However in the interwar environment Morgan and Murray's test was not immediately accepted – it was not quite 'respectable', as one reviewer put it<sup>21</sup> – and it took a standardizing process to make it eventually, during the 1940s and 1950s, an acceptable vehicle for exploring in a properly scientifically adequate way the 'depths of the self'. Many worked at their own versions for regularizing the test. Perhaps the most influential psychologist to do this was David McClelland, then at Wesleyan but soon to move to Harvard as the result of his exertions on behalf of the TAT as well as his research on the motivation for achievement in business enterprise. Murray objected, in fact, to the use of the test to number-crunch conclusions about people ('you can't make these big groupings', he warned) but this was precisely what McClelland did.<sup>22</sup> To put the matter directly: the test became experimental, reconceived explicitly as an experiment and indeed almost as a portable substitute laboratory.

McClelland trained as a strict behaviourist in the mid 1930s at Yale's Institute of Human Relations when it still enjoyed 'near hegemony in the heyday of neobehaviorism'.<sup>23</sup> Unlike that of Henry Murray, whose test he would soon take in hand, McClelland's training was rigorous. He was imbued with the Yale experimental approach. Son of a Methodist minister, scion of New England ancestors 'who tended to run to New England doctors and divines named Ichabod and Hezekiah with appropriately creative although generally religious imaginations', he became a Quaker by marriage, and by almost all accounts a genial and 'straight' man, a dedicated and systematic scientist.<sup>24</sup> David Winter, a student of McClelland's and a historian of the TAT, describes McClelland as 'an ambitious, tough-minded



experimental psychologist' who thought the emerging field of personality psychology too 'soft'.<sup>25</sup> McClelland's own descriptions of his work's epistemological bases display his conviction that an empirical approach can touch and even penetrate the most fantastic or intuition-ridden realms. Citing Thorndike as his guide, McClelland borrowed as his credo, 'If something exists, it exists in some amount and can be measured'. This was as true for the Oedipus complex as for the atomic weight of oxygen. 'If the Oedipus complex exists', he insisted, 'you should be able to identify it and code it, and recognize it when you see it in the TAT'.<sup>26</sup> For McClelland, then, the TAT was an instrument which made it possible to see what is at the very cusp of visibility and render it recognizable, codeable, calculable. In effect, it was a spur, a kind of stimulus or experimental intervention that caused this elusive data to emerge.<sup>27</sup>

What put McClelland's work 'on the map' in the years after the Second World War were his methodological innovations, and in particular his innovative use of the TAT. In his hands the TAT was no longer a way of getting at deep-held secrets and the configuration of personhood for the purposes of one-on-one inquiry or therapy or even deep life-changing insight, but foremost a way of creating a sort of automatic experimental situation, a de facto laboratory. 'I didn't want a personal relationship between the tester and testee to develop. I wanted it to be like an experiment, in which all people would have the same cues', he explained.<sup>28</sup> Anywhere it functioned, the TAT conferred experimental advantages.<sup>29</sup> McClelland showed in an important series of experiments in the late 1940s that experience itself, and cognition, were influenced by conditioning at any moment, and he further showed that the TAT was a useful, indeed indispensable tool in creating these conditioning circumstances. McClelland and his co-researchers 'aroused motives experimentally', starting with the ur-behaviourist stimulus of hunger and moving on to other, more complex forms of motivating stimuli. They used the TAT to demonstrate that ideation (imagery of food, power, sex, or ambition, for example) varied with changing 'stimuli situations'.

McClelland 'quantified' the test by developing 'coding systems' for individual differences in responsiveness to motive arousal for what became in his research the 'Big Three' motives: *n* Achievement, *n* Affiliation, *n* Power, and later for other motivations. Whereas Murray preferred the pooled informed opinions of experts to judge his test's results, McClelland advanced an 'experimentally derived scoring system'. By the early 1950s, through McClelland's efforts, the test was no longer bound to the clinic but constituted a 'group-administered research instrument, scored for motives according to objectively defined criteria by people who deliberately had no other contact with the storyteller'.<sup>30</sup> Not only did McClelland quantify, regularize and standardize the test, he somaticized it.<sup>31</sup>

By the end of the war, an anthropological-psychological method was almost stabilized. Common practice was to enlist a psychiatrist and test administrator to interpret the results gathered during fieldwork. This was,

in part, what allowed collaborative efforts in big social science – the massive, interdisciplinary, flotilla-style studies that flourished after the war – to supersede, for a time, the individual-researcher model. As part of the 1947–8 Coordinated Investigation, anthropologist William Lessa investigated the personality of the Micronesian people of Ulithi through a combination of ethnological study and psychological tests. Compiling a veritable encyclopedia of Rorschach results (all printed in an index to his monograph), he hired a stateside psychiatrist, Marvin Spiegelman, to analyze them.<sup>32</sup> Expeditions to the South Pacific and other equatorial areas came equipped with their own set of fourteen ‘specially adapted’ TAT cards geared to life on tropical atolls.<sup>33</sup> The tropical test cards steered well away from smelting plants or other symbols of industrial modernization seen in the original TAT cards. Each of the Micronesian cards featured a tropical scene of waving palm trees, choppy seas, sandy beaches, people in grass skirts and loincloths, drawn by an artist in Chicago. Test Card 1 showed people milling around in loincloths; others showed glaringly evident (to us, at least) tensions, in situations with sexy or brutal potential. On another card, a woman carried coconuts through a grove of palm trees where a suspicious-looking man lurked; on another, a bearded man sat next to a younger man on a log (Figs 2 and 3). Only one card, Test Card 14, was taken unaltered from the original test (Fig. 1). Rendered in an expressionistic, black-ink style, it depicted a person bowed over so that his head was supported on his arms, as if in despair, while about him swirled black birds which seemed to assail the figure, who in turn appeared to be either ducking to avoid them or so beset by dark emotion as to have generated them fully formed from inside his head.<sup>34</sup> Perhaps unsurprisingly, Micronesians tended not to interpret the cards in the way expected, or even within the range of likely responses. They were confused by the tests, very often displeased or anxious merely at being asked to complete them. It was hard to know what the tests were aiming at. This in turn led the test administrators (anthropologists) to have a dim view of their subjects’ personal intelligence or emotional ‘depth’ and one often comes across mildly derisive comments on these matters. This impasse perhaps explains the enduring unpopularity of psychological anthropology in the region – and it is worth noting that Micronesians do not appear to have found the results of such studies convincing. ‘It may well be that the absence of psychological anthropology from the social science writings of Micronesian scholars is related to the widely known distaste with which many Micronesians view the output of the culture and personality school when applied to their own societies’, comments Peter Black, a longtime anthropologist of Micronesia. ‘Nevertheless, the fact of that absence is disturbing.’<sup>35</sup>

By 1947, researchers felt the elusive was in a position to be made concrete – ‘nail[ed] down’, as one researcher exhorted.<sup>36</sup> Standardization and its twin, reliability, hovered close at hand. ‘Blind analysis’ showed that independent workers could interpret a single Rorschach record in



Courtesy University of California Press.

Fig. 2. Card No. 2 of the Pacific TAT, drawn by an artist in Chicago. It depicts a situation meant to stimulate the imagination of a typical Micronesian islander.



Courtesy University of California Press.

Fig. 3. Card No. 8 of the Pacific TAT, drawn by an artist in Chicago. Two men are sitting on a log purportedly expressing 'some sort of libidinal interest' in each other.

largely the same way: in 1949, five people re-studied a 1932 record which Margaret Mead obtained from a twenty-year-old Arapesh named Unabelin, said to be the most typical of men, and yielded parallel analyses, an Ur-Arapesh prototype.<sup>37</sup> Now test-givers claimed for themselves a sort of extractive exactitude operating without the knowledge of the patient/subject. A sense of urgency prevailed – one researcher described his testing and study of a ‘psychotic in the South Seas’ as a response to the ‘dire need’ for a literature and evidentiary database of concrete cases in the area of ‘primitive’ psychopathology.<sup>38</sup> Likewise, the 1961 edited volume *Studying Personality Cross-Culturally* testified on page one to the dearth of ‘adequate empirical materials descriptive of personality processes in the world’s cultures’.<sup>39</sup> This, then, was the structuring context for databanks of subjective materials including neurotic and psychotic elements, strange mental quirks, and even normality itself.

In all of these plans, prognostications, aspirations, and increasingly co-ordinated efforts, a common theme asserts itself: the need for *adequacy* in data collecting. The noun adequacy (arriving in 1801) denotes ‘sufficient to fulfill a task’, and in this case the task itself was large and ambitious. Admittedly lengthy, an inter-disciplinary quest to collect a body or database of dreams was in the service of experiment. Collections of the barely collectable, said their adherents, would constitute a form of scientific ‘social security’ which would in the future tide over fields that dealt with the intermixing of culture and personality. Cross-disciplinary and cross-cultural ambitions came home to roost in anthropology: in the summer of 1949, Harvard researchers in the Five Cultures project (a vast enterprise in ‘total anthropology’ that rivaled the Micronesian expedition in size and scope) employed the Thematic Apperception Test to measure ‘self-hate’ among the Navaho ‘[a]s a result of multiple-frustration at the hands of white-dominators’. Their aim: to be able to present ‘a final stratification of the population’.<sup>40</sup>

Projective tests promised two things: one, access to ‘deep, unconscious, and highly personal experiences which cannot be spoken of explicitly and publicly but which nevertheless are often shared or are common to all members of the particular group’.<sup>41</sup> Two, that these materials extracted from the deep were nevertheless susceptible to genuine scientific analysis. These dual promises sped the merger of the concerns of anthropology and psychology. Alongside the fast-growing human sciences, other mergers became possible. Totalizing mapping-of-subjectivity researches often coincided with nuclear-testing imperatives: Micronesia’s Trust Territory included Bikini, site of 1946’s historic Able and Baker Tests, as well as a subsequent ramping up of A and H-bomb explosions, sixty-six in twelve years to be exact, some of which vaporized entire atolls. Likewise, the Harvard Five Cultures project took place in the New Mexico desert not far from Los Alamos and its Alamogordo test ranges. The fact that ‘experimental areas’ for research into inner states bordered militarily occupied areas and atomic

test sites suggests the extent to which experimentation with objective matter and subjective materials paralleled each other, and sometimes interwove.

#### ‘MANIFESTOS’ FOR AN OBJECTIVE-STYLE SCIENCE OF SUBJECTIVITY

After World War Two a new generation emerged of experts in the inner life – or, rather, the exact points at which the outer forces come inside and ‘personality’ receives the demands of ‘culture’. Researchers reframed the very workings of perception and the self within a wide post-classical-behaviourist framework. It was, in a sense, an anti-autochthonous approach to modern social engineering: assuming nothing as given, rooted or essential in the indigenous form of personhood, and instead examining the way the individual is an ongoing enterprise emerging out of a welter of interactions between the developing self and that which lies outside the self. Important factors influencing behaviour were described as ‘functional’, or ‘directive’, and rooted in the ‘behavioral environment’. This, researchers argued, was how people became who and what they were – not as racial beings but fully environmental beings who come to exist by the inexorable operations of culture-coming-inside. Some ten years before the dismantling of culture and society by post-structuralism in ‘Structure, Sign, and Play in the Discourse of the Human Sciences’,<sup>42</sup> groups of anthropologists, psychologists and sociologists were reconceiving them as permeable entities, no longer solid, not any more bounded, but a product of ‘integral relations . . . between . . . variables’.<sup>43</sup> As one of the most prominent exponents of this approach, A. Irving ‘Pete’ Hallowell, remarked, the work was bearing holistic results, going beyond mere categories: ‘We have a most enlightening concrete demonstration in more than a single human society of the integral relations that exist between the variables that are abstractly expressed by perception, personality structure, and culture and which have so often been investigated separately’.<sup>44</sup> Out of concreteness (of knowledge) and collectivity (of action, of data) grew complexity of analysis. Complicated as it was, what it meant to be human – to live moment by moment within the ‘human behavioral situation’ – was susceptible of analysis.

What were originally some unconnected theoretical statements crystallized eventually into something like a ‘movement’, especially in the years 1944 to 1957. Hallowell was a pioneer who had employed the Rorschach test as early as 1938 with the Ojibwa Sioux ‘as a means for obtaining an objective assessment of their subjectivity, one that could make possible more precise cross-group comparisons’.<sup>45</sup> Problems at the edge of anthropology and psychology interested him from the start. Seemingly arcane, this territory became central within a generation. Hallowell’s goal was to express the most human parts of human existence in a scientific – that is, ‘more explicit’ – manner. ‘[I]t should be possible to formulate more explicitly the necessary and sufficient conditions that make a human existence possible and which account for the distinctive quality of human experience.’<sup>46</sup> Such conditions

were not just material, and not just socio-cultural, but also psychological-behavioural – to wit, what was necessary was not just culture described objectively in what Robert Lowie famously called ‘shreds and patches’, but from the inside, experienced as an unfolding phenomenon.

Hallowell’s major statement on this pursuit of self-as-experienced was an influential essay, ‘The Self and Its Behavioral Environment’, published in 1954. Here he laid out the neglected topic at hand – the self as object of inquiry. Mainline anthropology had ignored the self throughout its history, Hallowell argued: consider the welter of nineteenth-century anthropological materials accounting for war, ritual, religion, even God, all taken as research objects laden with solid and easy-to-trace qualities; look at Wissler’s 1923 claim to have traced the ‘universal pattern of culture’ in *Culture and Man* without ever mentioning self-awareness or the self-concept; look, finally, at Murdock’s 1945 compendium of ‘common denominators of culture’. Nowhere does Hallowell find the self included in the universal patterning, at least not in a psychodynamic and phenomenological sense. Even the comprehensive *Outline of Cultural Materials* which Murdock assembled painstakingly from the 1930s to the 1950s included ‘soul concept’ but not ‘self concept’. And by *soul* mainstream researchers meant, unavoidably, the soul as construed by and through religion ‘rather than in a psychological frame of reference, relevant to the generic fact of man’s self-awareness on the one hand, and the content of a culturally constituted self-image, on the other’.<sup>47</sup> Only outsiders such as psychoanalyst Géza Róheim had searched for self in this manner, as in ‘Das Selbe’ (1921), a series of investigatory articles concerning how different people in different places were aware of having ‘selves’. Hallowell’s quarry, then, was the self in a psychoanalytic sense, with due attention to cultural factors, but also with a post-behaviourist’s feeling for mechanics.

Hallowell was a major theorist of this movement at the borders of anthropology and psychology, of culture studies and ‘self’ studies, an attempt to express the unexpressed, if not inexpressible. Many talented researchers followed his lead, using projective apparatuses to extract masses of protocols and thus masses of data.<sup>48</sup> The methodological and disciplinary ‘between-ness’ of the researchers reflected, too, their interest in their subjects’ positions between two worlds. As part of the Harvard ‘Values Project’, another immense collaboration, Evon Vogt’s monograph *Navaho Veterans* focused on the process by which twelve Navaho ex-servicemen – all of whom, he hypothesized, ‘would be hopelessly caught “between two worlds”, Navaho and white’<sup>49</sup> – began, in varying degrees, to take themselves for white. Forgoing the typical anthropologist’s reliance on the ‘ethnographic present’ (his term), and making assiduous use of a specially adapted ‘Indian’ TAT, Vogt went on to place the twelve on a scale of acculturation, from the entrepreneurial Jo Yazi (‘Going the White Way’) to the unhappy and suicidal Charlie Miguel (‘Confusion and Conflict in the Navaho World’) to the stalwart Haske Chamiso (‘Readjustment to

Navaho Values'). Presented in four stages, the process of capitulation to the white way was incremental and seemingly inevitable. Significantly, this process was not only external but *internal* – and it was this more elusive internal level, a siphoning of self from one patterning to another, to which social scientists wanted access.

If Hallowell advocated projective tests as special aids to the particular goal of capturing the universally identifiable 'self as object', anthropologist Dorothy Eggan championed a particular kind of data: dreams. Eggan was one of the first to collect dreams in the form of 'a sizeable body of dreams from widely divergent areas, in a fully annotated cultural setting, and with enough dreamer associations so that the manifest content of the dream is amplified'.<sup>50</sup> The goal was to apply the experimental approach to the study of subjective materials. Like most proponents of a science of subjective materials, Eggan stressed standardizing methods necessary (1) to amass sufficient data, and (2) to make adequate hypotheses. In the realm of the dream life, beyond therapy, lay science. A key proviso for the establishment of a science of dreams was not to yield to an over-enthusiastic embrace of symbolic analysis or Freudian interpretation, but to stick largely to 'manifest content' and cultural resonances, as well as past history.<sup>51</sup> One might think, for example, that the anxiety-ridden dreams of a Hopi woman of twenty-seven – concerning 'a dark, canyon- or box-like passage' which she always considered 'bad' when it appeared, had to do with the womb and sexual worries. This may indeed be the case, averred Eggan, but bear in mind that the woman lived for a time near the lip of the Grand Canyon, 'where she was constantly and quite properly afraid that her small, active son would fall into it'; and in addition, note that this woman's mother used to break down in tears of terror whenever she took her small daughter (the dreamer) to Mishongnovi, a plaza with a dark entrance. Sticking to the 'manifest' level, Eggan finds dreams most amenable to social-science systematization. Dreams, after all, were traces of the mind's acts of projection – and as such qualified themselves as a certain kind of evidence (amassable data) in a certain kind of situation (experimental).<sup>52</sup>

Key to her project was the storage of large amounts of materials, which Eggan called the 'dream data'.<sup>53</sup> Best displayed in charts, such data, properly enumerated and presented, could be taken in at a glance. A chart of the manifest elements of 254 of 300 dreams Eggan collected in 1939 from a single Hopi subject, albeit an 'atypical' one, appeared in the text. Persecution and conflict featured in 169 out of 254 dreams, while accidents or danger appeared in ninety-five, and violence in forty-one. A high ratio of 136 bad dreams to eighty-four good and thirty-four indifferent or mixed constituted evidence of unease in personality and an 'affect of extreme discomfort'. In the face of an evidently relentless sense of danger in this man's dream life, Hopi religion figured as the balance-wheel, in Eggan's view – although 101 religious dream items had insecurity connected

with them. Counterbalancing elements, whether religious or not, form their own category: 260 distinct elements of ‘Security Support’ cropped up in his dreams, including fifty-one ‘guardian angels’, fifty-three visitations of ‘personal strength’ and wisdom, fifty-one cases of ‘support of whites’ and forty-nine miscellaneous supports including clowning, dancing, a dead mother, spirits, praise and sex.<sup>54</sup> In all this, Eggan was well aware of the tendentiousness and daring in her project. Yet in order for researchers to get beyond people’s evasive generalizations, in order to reach the level of the ‘reality situation’ and the kinds of deep and wrenching experiences subjects are often unwilling or unable to express, ‘the television qualities of the night life of the mind’ were worth pursuing.<sup>55</sup>

#### APPARATUS FOR ARCHIVING: MICROCARD PUBLICATIONS OF PRIMARY RECORDS IN PERSONALITY AND CULTURE

A National Research Council group gave support to these visions of a science of the hard-to-reach ‘depths of self’. In 1956 a newly formed ‘Committee on Primary Records’ took charge of large-scale data-gathering projects in psychology and anthropology, soon garnering additional National Science Foundation support. Chairing the committee was Hallowell; senior members included other culture-and-personality stalwarts – among them Harvard anthropologist John Whiting, developmental psychologist Wulf J. Brogden, Navaho expert and head of Harvard’s Russian Research Center Clyde Kluckhohn, and psychological anthropologist Melford Spiro – along with the project’s director, psychologist Bert Kaplan, as well as a representative of the Microcard Foundation. Oversight rather than minute control was the group’s aim, and their policy was to join together the efforts of existing groups to ‘encourage [them]... to develop archival activities... inform them of the possibilities of an archives program, and work with any groups that might be interested, giving them all possible help’. Dreams were on the table as a key data set: ‘[A coordinator] was also to take the initiative in helping workers in certain areas, i.e. dreams, to organize themselves to get archives formed’.<sup>56</sup>

The Committee and its ‘Microcard Publications’ series was not the only attempt in these years to make an objectivity-minded holding tank for subjectivity,<sup>57</sup> but it is of interest because of its peculiarly broad self-conception. Its members would not themselves be miners of data, but would compile metadata: they would track all data-mining projects in their area, in effect forming an archive of archives, an ur-encyclopedia of different kinds of psychological-anthropological evidence. Over the next two years Kaplan worked to survey surveyors of data, ferreting out likely collections and questioning noted data-gatherers on the best way to proceed. During a 1956 meeting of the Committee, collections mentioned as potential additions to the Microcard publication included: Barker and Wright’s Oskaloosa day records describing children’s behaviour; Smith, Bruner and White’s study of opinions and personality; primate-behaviour catalogues at Orange Park,



Florida; the Hutterite mental-health study; the Japanese bombing survey; the Michigan Clinical Psychology assessment study; Lewis Terman's studies of genius; the Jones-Nebraska Rorschach studies of a whole community; Donald Hebb's sensory-deprivation studies and MacKinnon's study of creative behaviour.<sup>58</sup> The committee expressed interest, too, in verbatim transcripts and tape recordings of psychotherapeutic interviews, and in Roger Barker's observational records in English and American classrooms, William S. Sosin's verbatim transcripts of interactions between married couples, Calvin Hall's records of the dreams of American college students, and Howard Becker's 500-page life history of a woman drug addict.<sup>59</sup>

As it happened, two large pilot projects were the only substantive work the Committee produced. In 1956 came the first volume, twenty-five contributions of fieldworkers amounting to 50,000 condensed pages of projective testing protocols. The second, in 1961, likewise included a mix of psychological and anthropological field data contributed by their collectors. This latter was the actual database of dreams, and when it was published it came mixed with other kinds of data. For the purposes of this paper, I want to stress the vision and technologies employed rather than the contents. Certainly, researchers failed to achieve their goal of disseminating across the country two multi-volume sets of Microcard Publications in Personality and Culture per university library.

The Microcard data have proved increasingly difficult to access. A researcher attempting to consult them must not only locate a set of 200-plus Microcards intact, but also a dedicated Microcard reader. (Microcards were an alternative to Microfiche technology in the mid 1950s, but soon died out, despite being a pleasing research article, which presents a grouping of miniaturized doll-house-sized pages). This researcher, having consulted Harvard University's on-line index, Hollis, and been told that the Microcard Publications c. 1956 were stored in the Tozzer Library of Anthropology, attempted to track them down, but the library's staff, amidst much head-scratching, reported that the listed items could not be found. Furthermore, even if they had been located, there was no technology with which to read them. The Library of Congress, however, in the Microfiche Reading Room, had a full set of the 1956 edition, as well as a clunky reader – the Readex Microprint machine, OPAQUE VIEWER model 7 – although with no method (as yet) for duplicating the data found there.

A trove of data emerged: from the American southwest there were myriad Rorschach tests of Navaho young men, TAT tests (both the Murray and the American Indian versions) from reluctant Zuni participants, and the records of Hopi schoolchildren at a boarding school who volunteered to take a series of tests. In addition, the Microcards held life histories of people from different tribes: a life history of an Objibwa young woman (collected by Erika Bourguignon), of three Pomo women (collected by

Elizabeth Colson), of a Spanish-American Man and two women (collected by Kurt Wolff). 'Here will be found Rorschach and TAT protocols as collected, without interpretation; life histories and autobiographies as recorded in the field. The data are primary records in this sense', wrote Hallowell in a general introduction.<sup>60</sup> The sentence completion tests of certain Navaho subjects were of interest. A Navaho twenty-four-year-old who had lived on the reservation his whole life was asked to complete the following:

- 21. I think the Indian Service is . . .
- 24. The big city is . . .
- 25. White women are . . .
- 26. I think traders are . . .
- 28. The sings are . . .
- 31. My brother is . . .
- 32. My grandfather is . . .
- 34. White People are . . .

In each case, 'all right' was the answer he gave. A twenty-year-old Navaho veteran, when asked to comment on the first of Murray's TAT cards, a picture of a boy looking at a violin, is initially at a loss: 'Says he don't know if he can do it. "You mean I have to tell you what this boy is thinking — I don't know what to do".' Another Navaho subject after the thirteenth card of Murray's test series interjected, 'Do these tests do any good for the Navaho people?'<sup>61</sup> The answer to his question does not appear in the record, but it is the case that researchers framed the giving of the tests in this manner: for the good of the tribe involved. This seemed mainly to convince subjects when accompanied by a one-dollar payment. The data themselves, then, do not seem at first to deliver the hoped-for untrammelled vision into the hidden recesses of another soul.

In terms of the dream of the database, however, and the technology that intersected with the dream, the project had lasting consequences. Central to it was the prospect of gathering up unmediated materials as close as possible to 'real life itself'.<sup>62</sup> However, at times researchers worried — justifiably, as we have seen — that painstakingly collected data might be lost or simply slip away, or then again, be no longer retrievable in the future. At other times, they focused on certain data sets as more fragile than others: 'Dr. Barker felt that much of the discussion had centered around materials such as statistical tables and data of archaeology and physical anthropology in which problems of preservation were less difficult than areas where more ephemeral psychological and social data were involved'.<sup>63</sup> It is for this sense of the constant and effortful amassing of data — which yet tends to slip away! — that this project seems most prescient. Many of their arguments continue to resonate in our own era when the fleetingness as well as ubiquity of data is hard to ignore.

ASSESSMENT: THE ELUSIVENESS OF DREAMS,  
THE EXPRESSIVENESS OF EVIDENCE

In the history told here, the birth of projective tests and new encyclopedias harnessed the power of what one Harvard contemporary called ‘new and better tests’ for a larger purpose.<sup>64</sup> Investigators attempted to take the kinds of things that are not quite substantial and render them capable of being processed, preserved and perhaps even engineered. Altogether these subjective materials constituted, in the words of the Committee on Primary Records, ‘a vast scientific resource’.<sup>65</sup> Could one take a psychotic’s rambling diatribe and make it a shared object? the fleeting thoughts of a heroin addict and circulate them in an archive? Take a Hopi grandmother’s dream ‘of snowdrifts in her front yard, and of the beauty of white chickens in a snowfilled evergreen forest’, and make it available to future studies?<sup>66</sup> In short, could one make of years of testing, fieldwork, psychoanalytic encounters, and studies of personalities an immense evidentiary resource? The preliminary if highly qualified answer, as of 1961, was yes.

New histories of objectivity buttress this interpretation. Objectivity appears as a kind of haunted enterprise, a struggle always to catch up to and ‘nail down’ that part of all things – *sic transit gloria mundi* – which eludes capture. Galison and Daston’s *Objectivity* gives an account of just such a function as central to the quest for objectivity. In the mid nineteenth century, scientists ‘begin to *yearn* for this blind sight, the “objective view” that embraces accidents and asymmetries. ...’<sup>67</sup> The story of the rise of objectivity is one of a wider and wider compass for this yearning to take the accidental, the off-centre, the weird and the unpredictable, the by-products of that construct known as human ‘personality’, and to capture it, hold it, find for it a place in the now-more-capacious embrace of truth. This became the project of different ‘human sciences’ as they emerged in the nineteenth century and flourished in the twentieth. *Objectivity preserves that which would have been erased*. At first, this might be difficult to fathom: most people generally think of objectivity as a sure process of gaining more and more certainty, a firmer and firmer foothold (even if, as historians of science often point out, this has its ideological elements). The ‘database of dreams’ and its accompanying technologies is a reminder that the flip side of a firm foothold is the glimpse of shifting sands of uncertainty. In the gathering up of subjective materials, one can glimpse this ‘haunted’ quality of the pursuit of objectivity: marching on, collecting more and more, the spectre of inevitable loss also asserts itself. It casts a spell under which we continue to operate, in our database-aided search for an ever more total accounting. One can ask: what is lost and gained in the process of trying to recover something akin to Borges’s ‘irrecoverable colors of the sky’?

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New York, 2006). She teaches in the Department of the History of Science at Harvard University.

#### NOTES AND REFERENCES

1 Vannevar Bush, 'As We May Think', *The Atlantic Monthly*, July 1945.

2 Organizers called it 'the largest cooperative research enterprise in the history of anthropology': Bulletin re Coordinated Investigation of Micronesian Anthropology Project (CIMA), May 13, 1947, National Academy of Sciences-National Research Council (NAS-NRC) Archives, ADM: EX Bd.: Pacific Science Board: CIMA. Originally, the project was to involve 'all the sciences' but its initiators changed the focus to 'primarily the geographical and human sciences (including public health)' because this would aid in problems of 'practical administration': Letter of George Peter Murdock to Dr Walter Miles, 5 Feb. 1946, NAS-NRC Archives, Division of Anthropology and Psychology: DNRC: A&P: Committee on Anthropology of Oceania: General, 1942-43. Other contemporary projects shared this aim and language of completeness: for example, the Indian Personality Research project of the University of Chicago between 1942 and 1947 amassed 'deep, all-inclusive case-studies' of a representative sample of American Indian groups by means of scientist-technician expertise drawn from anthropology, ecology, psychiatry, medicine, sociology, and other fields. See Laura Thompson, *Personality and Government: Findings and Recommendations of the Indian Administration Research*, Ediciones Del Institute Indigenista Interamericano, Mexico, 1951.

3 The Navy's press release spoke of the investigation's intention to 'fill the gaps in scientific knowledge' of this area closed to Western scientists until recently: Naval Press Release, 20 May 1947, 'Scientists from Twenty-One Institutions Will Soon Begin Extensive Research in Former Japanese Mandated Islands', in NAS-NRC Archives, Administration: EX Bd.: Pacific Science Board: CIMA: General 1947. The search for totality in knowledge-collecting projects has a long if under-studied history. Peter Galison, in 'Ten Problems in History and Philosophy of Science', *Isis* 99, 2008, employs the phrase 'superlunary science' to characterize efforts to embody Enlightenment reason in unifying scientific projects in the twentieth century, peaking at mid century. Mary Poovey's essay, 'The Limits of the Universal Knowledge Project: British India and the East Indiamen', *Critical Inquiry* 31, 2004, provides a historical and epistemological analysis of the roots of projects that paralleled CIMA.

4 The closer and closer linkage of representation with intervention is considered by some to be the very instantiation of modern rationality. See, for example, Paul Rabinow, 'Artificiality and Enlightenment: From Sociobiology to Biosociality', in *Incorporations*, ed. Jonathan Crary and Sanford Kwinter, New York, 1991; Ian Hacking, *Representing and Intervening*, Cambridge, 1983; and Peter Galison and Lorraine Daston's discussion of evolving forms of scientific representation in *Objectivity*, New York, 2007. In the case of Micronesia, some of the forty-one scientists originally dispatched by CIMA ended up writing American colonial policy for these territories: see 'Anthropology's Laboratory', in Rebecca Lemov, *World as Laboratory: Experiments with Mice, Mazes and Men*, New York, 2006.

5 This was not the first attempt to collect dreams in a systematic manner: precursors include a sixteenth-century Chinese encyclopedia of dreams, and parts of the British Mass-Observation project, besides, of course, Freud's *Interpretation of Dreams*. The Chinese encyclopedia as well as Freud's dream-book coalesced around theories of dream interpretation, without which the data of the 'dreams themselves' would have counted for little. (The Chinese dreams were drawn exclusively from literary sources, and were employed by Chen Shiyuan to illustrate various principles of dream formation and elicitation of meaning.) Mass-Observation was much closer in spirit to CIMA's total accounting and to neo-encyclopaedic endeavours. In other words, these mid twentieth-century projects aimed to use dreams to excavate the relatively unlooked-at subjective states of 'ordinary' people. See *Wandering Spirits: Chen Shiyuan's Encyclopedia of Dreams*, transl. and intro. Richard Strassberg, Berkeley, 2008; and Sigmund Freud, *The Interpretation of Dreams*, New York, 1980. Cf. the decision to initiate 'an archives project for dream materials': Minutes of Meeting of Committee on Primary Records in Culture and Personality, 9 Nov. 1956, in NAS-NRC Archives, Div. of Anthropology and Psychology: Committee on Primary Records (CPR): Meetings: 1956; and 'Notice' [undated, c. 1956] of Formation of Committee on Primary Records in Anthropology and Psychology,

in NAS-NRC Archives, Div. of Anthropology and Psychology: CPR: Meetings: 1956. On the Mass-Observation project, see Nick Hubble, *Mass-Observation and Everyday Life: Culture, History, Theory*, Basingstoke and New York, 2006; some M-O data may be accessed at <http://www.massobs.org.uk/index.htm>.

6 According to Weber, the 'rise of the exact sciences' was occasioned by a quest to rediscover a hidden God by physically grasping His traces in the natural world, and the sciences were essentially ontological pursuits, seeking after true art, true being, true nature, true happiness. However, a mature science (*Wissenschaft*) worthy of the name could no longer answer these primary questions. The quest to approach ultimate truth through numbers brought about its opposite. Max Weber, 'Science as a Vocation', in *From Max Weber: Essays in Sociology*, transl. and ed. Hans Heinrich Gerth and C. Wright Mills, New York, 1946, pp. 142–3. On the history of nineteenth-century fact-collecting innovations, see Nathan Glazer, 'The Rise of Social Research in Europe', in *The Human Meaning of the Social Sciences: Original Essays on the History and Application of the Social Sciences*, ed. Daniel Lerner, New York, 1959. Glazer's essay focuses on the perfection of fact-gathering methods as the root of social science in its modern form; in this he was thirty or forty years before his time. Recent histories of social science have begun to address fact-collection techniques, as in Ian Hacking's work (see n. 3 above) and Ruth Leys, 'Types of One: Adolf Meyer's Life Chart and the Representation of Individuality', *Representations* 34, spring 1991, but most other histories have tended to focus on guiding intellectual theories and concepts. For much-needed scholarly attention to the history of quantitative methods and the positivistic pursuit of exactitude, see Mary Poovey, *A History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society*, Chicago, 1998; Theodore Porter, *Trust in Numbers: the Pursuit of Objectivity in Science and Public Life*, Princeton, 1996; Paul Rabinow, *French Modern: Norms and Forms of the Social Environment*, Cambridge MA, 1989, and 'Ordonnance, Discipline, Regulation: Some Reflections on Urbanism', *Humanities in Society* 5, 1982. The last describes the growing need among urban planners for 'a precise knowledge... of such matters as the geology, geography, demography, the market, the dispositions and possibilities of the inhabitants' trades, the conditions of hygiene, dangers of infection from abroad, and so on' (p. 276). On the American context, a more traditional intellectualist approach is Dorothy Ross, *The Origins of American Social Science*, Cambridge, 1991.

7 Gregory Bateson, 'Social Planning and the Concept of Deutero-Learning' (1942), in *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution and Epistemology*, New York, 1973, p. 161.

8 Borges's account of the discovery by archivists of the obscure land of Tlön reads like a parable of mid-century social science: 'At first it was believed that Tlön was a mere chaos, an irresponsible incense of the imagination; now it is known that it is a cosmos and that the intimate laws which govern it have been formulated, at least provisionally': Jorge Luis Borges, 'Tlön, Uqbar, Orbis Tertius', in *Labyrinths*, New York, 1964, pp. 7–8.

9 George G. Spindler, Review of Gardner Lindzey, 'Projective Techniques and Cross-Cultural Research', in *American Anthropologist* 64, 1962, p. 1,327.

10 Peter Galison, 'Image of Self', in *Things That Talk*, ed. Lorraine Daston, New York, 2004, p. 274. Invented in 1921, Hermann Rorschach's test consists of a series of ten officially designated inkblots: five are black on a white background, two black and red on white paper, and three multi-coloured. When the test-taker sees a card – and it is very important that the subject has never seen it before – s/he is asked to describe the picture. S/he will receive an evaluation on the basis of her response: what s/he sees in the image (in whole or in part), time taken to respond, whether s/he rotated the card, or turned it over, or rejected the card as abnormal, or whether she refused to answer for some other reason. The goal was to gain insight into an individual's 'experience type' or *Erlebnistyp*, as Rorschach called it (Galison, p. 266). 'Secret instructions' for printing the ten cards under proper conditions of humidity and temperature have been 'passed down over generations' according to Galison (p. 257). The test has been reinterpreted many times, and the methods used to evaluate responses have also changed.

11 Quoted by Milton Singer, 'Culture and Personality Theory and Research', in *Studying Personality Cross-Culturally*, ed. Bert Kaplan, Evanston, 1961, p. 11. In contrast, nineteenth-century ethnographic surveys avoided subjective materials such as dreams and focused instead on 'facts' such as physical types of inhabitants; current traditions, dialects, remains of ancient culture, historical evidence of racial persistence: see James Urry, 'Englishmen, Celts, and Iberians: the Ethnographic Survey of the United Kingdom, 1892–99', in *Functionalism Historicized: Essays on British Social Anthropology*, ed. George Stocking, Madison, 1984, p. 88.

12 1974 interview with Murray quoted by James William Anderson, 'Henry A. Murray and the Creation of the Thematic Apperception Test', in *Evocative Images, the Thematic Apperception Test and the Art of Projection*, ed. Lon Gieser and Morris Stein, Washington DC, 1999, p. 37.

13 Christiana D. Morgan and Henry A. Murray, 'A Method for Investigating Fantasies: the Thematic Apperception Test', *Archives of Neurology and Psychiatry* 34, 1935; Henry A. Murray, *Explorations in Personality*, New York, 1938; Henry A. Murray, *Thematic Apperception Test: a Manual*, Cambridge MA, 1943. On authorship of the test see Anderson, 'Henry A. Murray and the Creation of the Thematic Apperception Test'. Christiana Morgan was first author in the initial publication, but by the third, the major and influential 1943 volume, which went on to become the second highest seller in the history of Harvard University Press, her name had somehow 'dropped off' the cover. According to Murray, in at least one account Morgan 'asked that her name be officially omitted', having received a vexing amount of mail with questions she felt unable to answer, and because, as Murray put it, she didn't really understand the test she had invented (Anderson, pp. 33–4).

14 John B. Watson, 'Psychology as the Behaviorist Views It', *Psychological Review*, March 1913, p. 171. According to Dorothy Ross (*Origins of American Social Science*, p. 312), Watson advanced an 'extreme behaviorism that... taught that all mental action could be ultimately explained as reflex responses to the environment'.

15 Dewey's attitude is discussed in Kerry W. Buckley, *Mechanical Man: John Broadus Watson and the Beginnings of Behaviorism*, New York, 1989, pp. 78–80.

16 The language here comes directly from the titles of their early pioneering work: Morgan and Murray's 'A Method for Investigating Fantasies' and Murray's *Explorations in Personality*.

17 Murray quoted in Anderson, 'Henry A. Murray and the Creation of the Thematic Apperception Test', p. 25.

18 Cf. Henry Murray, *The Thematic Apperception Test: a Manual*. A cardinal trait of a projective test, indeed, is its covert element: 'Finally, projective techniques are regarded by their exponents as especially effective in revealing covert, latent, or unconscious aspects of personality. Moreover, the more unstructured the test, it is argued, the more sensitive it is to such covert material. This follows from the assumption that the more unstructured or ambiguous the stimuli, the less likely they are to evoke defensive reactions on the part of the respondent': Anne Anastazi, *Psychological Testing*, 3rd edn, New York, 1968, p. 494. This common usage of projection among exponents of projective testing is almost the opposite of Freudian projection, itself a defensive mechanism used (by a subject undergoing psychoanalysis) to obscure not reveal the unconscious contents.

19 Morgan and Murray, 'A Method for Investigating Fantasies', pp. 115–43.

20 Some, as late as 1992, compare its wonders favourably with other projective tests, as if comparing new car models or beauty contestants: 'The TAT had all that the Rorschach had and more': Lon Gieser and Morris I. Stein, 'An Overview of the Thematic Apperception Test', in *Evocative Images*, ed. Gieser and Stein, p. 5.

21 Spindler, Review of Gardner Lindzey's *Projective Techniques and Cross-Cultural Research*, p. 1,326. In some circles the test bore for years a taint of its origin: projective techniques, especially the Rorschach, 'originated with a highly specialized and somewhat esoteric group in psychology and psychiatry who were quite removed from the domain of "respectable" academic psychology'. Respectability was needed to proceed with the search for 'behavioral indices that would be operationally and conceptually equivalent cross-culturally' and to have regularized measurements for the 'depths of the self' via 'standard scoring systems for projective responses' (p. 1,327).

22 Quoted in Anderson, 'Henry A. Murray and the Creation of the Thematic Apperception Test', p. 35.

23 Stephen E. Toulmin and David Leary, 'The Cult of Empiricism in Psychology and Beyond', in *A Century of Psychology as Science*, ed. Sigmund Koch and David Leary, Washington DC, 1992, p. 606.

24 In fact, McClelland and Murray, unknown to themselves at the time, shared an ancestor of old New England stock named Babcock: see McClelland, 'How the Test Lives On: Extensions of the Thematic Apperception Test Approach', in *Evocative Images*, ed. Gieser and Stein, p. 164.

25 David G. Winter, 'Linking Personality and "Scientific" Psychology': the Development of Empirically Derived Thematic Apperception Test Measures', in *Evocative Images*, ed. Gieser and Stein, p. 108.

26 10 Feb. 1996 interview quoted in Winter, 'Linking Personality and "Scientific" Psychology', p. 108.

27 McClelland, 'How the Test Lives On', p. 163.

28 McClelland interview of 10 Feb. 1996, quoted by David Winter, "'Toward a Science of Personality Psychology": David McClelland's Development of Empirically Derived TAT Measures', *History of Psychology* 1: 2, 1998, p. 143.

29 Murray played around with this type of usage as well. See the 1948 *Assessment of Men: Selection of Personnel for the Office of Strategic Services* (Office of Strategic Services Staff, New York), which describes a battery of tests and experimental situations devised by Murray for the OSS, including the use of the TAT in stress tests to determine likely candidates for spy missions and infiltration of enemy institutions.

30 Winter, 'Toward a Science of Personality Psychology', p. 130.

31 That is, McClelland felt he 'tied the TAT-based motives much more closely to biological processes than more complexly determined motives such as conscious desires...': McClelland, 'How the Test Lives On', pp. 165–7 ff.

32 William A. Lessa and Marvin Spiegelman, 'Ulithian Personality as Seen Through Ethnological Materials and Thematic Test Analysis', *University of California Publications in Culture and Society* 2: 5, Berkeley, 1954.

33 The necessity for such adaptations is clear from the original TAT cards (made up of images from popular 1930s magazines redrawn in pen and ink by Christina Morgan), for example, a Fleischman's Yeast advertisement or a 'litttle boy leaning against a rail overlooking what appears to be a huge factory or smelting plant', taken from a photograph featured in the February 1932 *McCall's*. See Wesley G. Morgan, 'Origin and History of the Earliest TAT Pictures', *Journal of Personality Assessment* 79: 3, 2002.

34 The full Pacific-modified TAT set was published in Lessa and Spiegelman, 'Ulithian Personality'.

35 Peter W. Black, 'Psychological Anthropology and Its Discontents: Science and Rhetoric in Postwar Micronesia', in *American Anthropology in Micronesia: an Assessment*, ed. Robert C. Kiste and Mac Marshall, Honolulu, 1999, p. 232.

36 Robert Sears at Harvard's Laboratory of Social Development participated in the 'Five Cultures' or 'Values Project', which aimed to collect in a vast filing cabinet the elusive stuff of human decision-making and belief: people's values. They overhauled an earlier, more materialistic schema so as to 'nail down a very substantial body of facts and set of principles' on values. Robert Sears to Evon Vogt, Letter with Proposal, 12 March 1951, in Harvard Archives, UAV 801.2010.

37 1949 study cited in Hallowell, 'The Rorschach Test in Personality and Culture Studies', *Culture and Experience* (Philadelphia), 1955, pp. 60, 61. An anthropologist (Kluckhohn) and psychoanalyst (Rosenzweig) studied two Navaho children, following them from birth to age five, and gave Rorschach results to four interpreters, whose tabulated results showed 'a high degree of conformity'.

38 Melford E. Spiro, manuscript 'A Psychotic Personality in the South Seas', in NAS-NRC Archives, ADM, EX Bd.: Pacific Science Board, CIMA. Published as Melford E. Spiro, 'A Psychotic Personality in the South Seas', *Psychiatry* 13: 2, 1950 (pp. 189–204), p. 189 [page numbers from published article].

39 *Studying Personality Cross-Culturally*, ed. Kaplan, p. 1.

40 Several Five Cultures projects are described in Progress Report on Comparative Study of Values, 24 Nov. 1950, in Harvard Archives, UAV 801.2010.

41 George De Vos, 'Symbolic Analysis in the Cross-Cultural Study of Personality', in *Studying Personality Cross-Culturally*, ed. Kaplan, p. 598.

42 'The concept of structure and even the word "structure" itself are as old as the episteme—that is to say, as old as western science and western philosophy', wrote Derrida, going on to proclaim that any solidity and centring thought normally to inhere in structures, whether social, humanistic or cultural, had already been dismantled. I am not arguing, however, that these culture-and-personality experts about whom I write were deconstructionists *avant la lettre*; rather, using Derrida's terminology, they still believed in 'presence', in the grounding of 'being' within a 'structuralizing structure'. Their sophisticated theorizing notwithstanding, they preceded, in other words, 'this moment...in which language invaded the universal problematic; ...in which, in the absence of a center or origin, everything

became discourse...': Jacques Derrida, 'Structure, Sign, and Play in the Discourse of the Human Sciences', in *Textual Strategies: Perspectives in Post-Structuralist Criticism*, ed. Josué V. Harrari, London, 1980, pp. 35, 37.

43 Cf. Hallowell, *Culture and Experience*, p. 40. This theory, a kind of post-behaviourism, seemed to favour a neutral, rather mild form of social engineering: understanding the mechanisms by which people become 'selves' with inner lives or emotional patterning was a way, potentially, of learning to use those mechanisms.

44 Hallowell, 'The Rorschach Test in Personality and Culture Studies', in *Culture and Experience*, p. 62

45 Characterization of Hallowell's work by Melford E. Spiro, 'Postmodernist Anthropology, Subjectivity, and Society: a Modernist Critique', *Comparative Studies in Society and History* 38: 4, 1996, p. 761; Hallowell's Ojibwa studies from the 1930s and 1940s are collected and republished in his *Culture and Experience*, Part 2, 'World View, Personality Structure, and the Self: the Ojibwa Indians'.

46 Hallowell, Preface to *Culture and Experience*, 1954, pp. vii-viii.

47 Hallowell, 'The Self and Its Behavioral Environment', in *Culture and Experience*, p. 77. The following sources referred to in this paragraph are cited by Hallowell (among others) in his essay: Clark Wissler, *Man and Culture*, New York, 1923; George P. Murdock, 'Common Denominators of Culture', in *The Science of Man in the World Crisis*, ed. Ralph Linton, New York, 1945; George P. Murdock, Clellan S. Ford, Alfred E. Hudson and others, *Outline of Cultural Materials*, Behavior Science Outlines, vol. 1 (3rd edn), New Haven, Human Relations Area Files, Inc., 1950. Finally, Hallowell cites the Géza Róheim essays on 'Das Selbst' as appearing in *Imago* in 1921, and receiving the Freud prize in that year.

48 According to a retrospective summary by Spiro, significant uses of such tests by anthropologists in the years from 1944–57 included George De Vos, 'A Comparison of Personality Differences in Two Generations of Japanese Americans by Means of the Rorschach Test', *Ngoya Journal of Medical Science* 17, 1954; Cora Du Bois, *The People of Alor: a Social-Psychological Study of an East Indian Island* (with analyses by Abram Kardiner and Emil Oberholzer), Minneapolis, 1944; Thomas Gladwin and Seymour B. Sarason, *Truk: Man in Paradise*, New York, 1953; William Henry, 'The Thematic Apperception Technique in the Study of Culture-Personality Relations', *Genetic Psychology Monographs* 35, 1947; George Spindler, *Sociocultural and Psychological Processes in Menomini Acculturation*, Berkeley, 1955; and Anthony F. C. Wallace, *The Modal Personality Structure of the Tuscarora Indians as Revealed by the Rorschach Test*, Washington, Bureau of American Ethnology Bulletin 150, 1952. In this period, the Bureau of American Indian Affairs sponsored a programme for large-scale testing of different Indian groups, monitoring the sense of 'self' in response to pressures of acculturation – which relied on the TAT, Rorschach and other tests used as probes and X-rays for innerness. Cf. William Caudill, 'Psychological Characteristics of Acculturated Wisconsin Ojibwa', *American Anthropologist* 51, 1949; Alice Joseph, Rosamond B. Spicer and Jane Chesky, *The Desert People: a Study of the Papago Indians*, Chicago, 1949; Dorothea Leighton and Clyde Kluckhohn, *The Children of the People: the Navaho Individual and his Development*, Cambridge MA, 1947; Gordon MacGregor, *Warriors without Weapons: a study of the Society and Personality Development of the Pine Ridge Sioux*, New York, 1946; Laura Thompson and Alice Joseph, *The Hopi Way*, Chicago, 1944.

49 Evon Z. Vogt, *Navaho Veterans: a Study of Changing Values*, Cambridge MA, 1951, p. 3.

50 Dorothy Eggan, 'The Manifest Content of Dreams: a Challenge to Social Science', *American Anthropologist* 54: 4, 1952, p. 477.

51 Researchers should aim for a situation where 'hypotheses can be formulated and progress made in the standardization of methods for the use of manifest level dream content': Eggan, 'Manifest Content', p. 477.

52 All are facets of a 'projective process in which the dreamer responds to his own mind's images of his culturally oriented world as it is, or as he wishes or fears it to be': Eggan, 'Manifest Content', p. 480.

53 Eggan, 'Manifest Content', p. 471.

54 Eggan, 'Manifest Content', p. 482.

55 Eggan, 'Manifest Content', p. 485.



56 Minutes of Meeting of the Committee on Primary Records, 19 Jan. 1956, in NAS-NRC Archives, Div. of Anthropology and Psychology: CPR: Meetings: 1956.

57 Other notable attempts at establishing a 'science of subjectivity' went forward c. 1955–64 via a CIA-funded research network – the Human Ecology Fund, the Geschickter Foundation and the Scientific Engineering Institute, among others – that identified and routed money to researchers working in the more experimental arms of psychology and anthropology. In these outsourced laboratories as well as its own, the CIA encouraged unorthodox research on topics such as how certain stratospheric drugs worked; whether hypnotized secret-agents could be programmed to carry out missions unaware; whether mind-control machines could be built; the possibilities of mass brainwashing, coercion or subtle attitude adjustment and behavioural modification; the use of electroshock, intensive drugging and lobotomy to 'drive' an individual; how extended sensory deprivation affected state of mind; and whether any or all of these might be effective interrogation tools or, then again, serve to make someone forget having been interrogated at all. See for instance John Marks, *The Search for the Manchurian Candidate: the CIA and Mind Control: the Secret History of the Behavioral Sciences*, New York, 1991, and Patricia Greenfield, 'CIA's Behavior Caper', *APA Monitor*, December 1977, p. 1.

58 See Minutes of Meeting of Committee on Primary Records (Philadelphia), 9 Nov. 1956, in NAS-NRC Archives, Div. of Anthropology and Psychology: CPR: Meetings: 1956. (Cf. also Mortimer B. Smith, Jerome S. Bruner and Robert W. White, *Opinions and Personality*, New York, 1956; Lewis M. Terman, *Genetic Studies of Genius*, vol. 1, *Mental and Physical Traits of a Thousand Gifted Children*, Stanford, 1926.) The intention was to invite all the indicated researchers to contribute their data sets; it is not clear whether any did so, but none was included in the two volumes of the Microcard publication that appeared.

59 The Barker, Sosin, Hall, and Becker data sets all receive mention in a letter dated 3 Dec. 1958, from Bert Kaplan of the University of Kansas to Glen Finch, Director of Anthropology and Psychology, National Academy of Science. Kaplan wonders whether the NAS would be interested in funding publication of a Primary Records in Psychology series. Nine days later, Finch said no. Both letters are in NAS-NRC Archives, Anthropology and Psychology: CPR: Requests for Funds 1956–1958.

60 A. Irving Hallowell, General Introduction, *Microcard Publications of Primary Records in Culture and Personality*, vol. 1, 1956.

61 Data from test protocols quoted in this paragraph are found in 'Rorschachs of Sixty Navaho Adults and Children and Modified TATs, Murray TATs and Sentence Completion Tests of Fourteen Navaho Young Men', ed. Bert Kaplan, *Microcard Publications of Primary Records in Culture and Personality* 1: 20, 1956.

62 Minutes of Meeting of Committee on Primary Records (Philadelphia), 9 Nov. 1956, in NAS-NRC Archives, Div. of Anthropology and Psychology: CPR: Meetings: 1956.

63 Minutes of Meeting of the Committee on Primary Records, 3 May 1956, in NAS-NRC Archives, Div. of Anthropology and Psychology: CPR: Meetings: 1956.

64 Minutes of Department of Social Relations Meeting, 24 May 1949, in Harvard Archives, UAV 801.2010.

65 It was a vast scientific resource 'not only of the greatest potential usefulness to the research worker of the future but . . . relevant to many unsolved problems with which present day investigators are concerned'. Letter from Finch to National Science Foundation modifying request to \$10,000 for one year, 11 April 1956, in NAS-NRC Archives, Div. of Anthropology and Psychology: CPR: Meetings: 1956.

66 Dream recorded in Eggan, 'The Manifest Content of Dreams', p. 475, and included in 1961 *Microcard Publications in Personality and Culture*.

67 Lorraine Daston and Peter Galison, *Objectivity*, p. 17, emphasis added.