Reflexivity and the psychologist

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ABSTRACT

Psychologists tend to examine their activities in experimentation with the same objective scientific attitude as they routinely assume in the experimental situation. A few psychologists have stepped outside this closed epistemic practice to undertake reflexive analysis of the psychologist in the laboratory. Three cases of such critical reflexive analysis are considered to better understand the strategies and consequences of confronting what Steve Woolgar has called 'the horrors of reflexivity'. Reflexive work of William James, Horace Mann Bond, and Saul Rosenzweig are examined: working in the early years of modern experimental psychology these scientists identified limitations in the dominant natural science model of experimentation. Attending to the scientist's own cognitions, social status, and unconscious processes respectively, James, Bond, and Rosenzweig criticized this natural science model and presented methodological and epistemic alternatives. The relative neglect of their constructive observations underscores the resistance to addressing psychology's reflexive dimensions.

Key words experimentation, psychoanalysis, psychology, race, reflexivity

In its first century, the 20th, modern experimental psychology triumphed as the academic guardian of mental life. The experiment promptly became the principal method of inquiry, and laboratory standards of objectivity influenced standards set for non-experimental research practices.
psychological knowledge ensuing from this scientific undertaking to calibrate mental life has deeply informed policy and institutional management as well as individuals’ self-understandings. Experimentation reigns in the psychology produced in universities and research institutions and garners much of government funding for psychology research; its status surpasses all other contenders for the production of scientific knowledge about the psyche.

One of the remarkable, if mostly unnoticed, features of this triumph is the discipline’s disregard for the problems of reflexivity. Despite Nietzsche, the pragmatists, and later Derrida and deconstruction theorists, experimental psychology virtually escaped reflexive regard, even evading the reflexive paradox of claiming rational authority about the irrationality of human nature. Despite relativity theory, the uncertainty principle, and physicists’ interests in relating consciousness to knowledge about the world, experimental psychology has undertaken no systematic meditation on psychologists’ position as observers. While experimental psychology at times has proffered conceptions of human nature that contravene cultural and moral conceptions of humans, say, the potential implications of determinism for democratic citizenship or legal understandings of intentionality, it has not been targeted, as has been genetics, for ethical scrutiny. And while largely assuming that human nature is a universal, trans-historical phenomenon and that essential differences exist between human kinds, psychology has been examined less than any human science through the critical lens of difference theory, identity politics, and science studies. Experimental psychology, apparently, has resisted confronting what Steve Woolgar (1988) called the ‘horrors of reflexivity’. Even taking into account the several meanings of reflexivity, as we will do presently, experimental psychology seems to have avoided, evaded, or suppressed consideration of all renderings of the reflexive.

This article aims towards correcting such oversight by examining three instances where psychologists themselves engaged reflexivity in critical analysis of experimentation. The cases are drawn from psychologists’ writings during the first half-century of the ‘new’ experimental psychology in America, 1890–1940. This period saw the invention and consolidation of a standardized set of experimental techniques – instating these techniques as the sine qua non of a truly scientific psychology. William James (1890), Horace Mann Bond (1927), and Saul Rosenzweig (1933) published substantive critiques of the psychology experiment. While these psychologists contributed in various ways to the making of experimentation as a central investigative procedure, they nevertheless voiced serious reservations about that procedure. Their reservations at once targeted and also engaged reflexivity. And their concerns went beyond methodology: each held beliefs about human complexity and plasticity that were not represented in canonical research. The ultimate dismissal of all three critiques, although not a focus of the present study, underscores the hegemony of theory, methods, and rhetoric in psychology.

REFLEXIVITY AND HUMAN SCIENCES

Over the last decade the notion of reflexivity has garnered considerable inspection by philosophers and social scientists alike. These inquiries generally take reflexivity to be an essential property of the human sciences, although the place of reflexivity within those sciences is less simply understood. Using the barest of templates, reflexivity has been conceptualized in three different but related ways. In a most general definition, reflexivity entails any turning back upon oneself or enacting any form of self-regard. Such reflection, according to Pierre Bourdieu, allows ‘those who do science to better understand the social mechanisms orienting scientific practice, thus enabling them to become “masters and possessors” not only of “nature,” according to old Cartesian ambition, but . . . of the social world in which knowledge about nature is produced’ (quoted in Miall, 2003: 614). An excellent example of such reflexive thinking is found in Gordon Allport’s (1940) analysis of psychologists’ preoccupation with laboratory methods and consequential alienation from psychological process in social and political life. Let us call this reflexivity of the first, or primary, form. When considering intellectual activities where the objects of inquiry are humans, reflexivity also can be understood as the inescapable, self-referential quality of theory. Reflexivity of the second form comprises ‘an aspect of all social science since any statement which holds that humans act or believe in particular ways in particular circumstances refers as much to the social scientists as to anyone else’ (Gruenberg, 1978: 22). This form of reflexivity was commonly used by the originators of cognitive science in the 1950s who insisted that the processes of thinking of scientists and those of ordinary actors are the same: rational, creative, and flexible (Cohen-Cole, 2003, 2005 [this issue]). Another example is B. F. Skinner’s efforts to establish behaviorist theory that accounted for the scientist’s production of science. A third form of reflexivity concerns the dynamic relations between accounts of reality and reality: reflexivity here entails that back-and-forth process in which an account of reality depends on pre-existing knowledge of what the account refers to, and vice versa. Reflexivity of this third form implicates all sciences and scientists who produce observational accounts of the world and are guided in their observations by pre-existing understandings of those objects in the world (Woolgar, 1988). Ian Hackling’s (1995b) history of multiple personality disorder traces the dynamic relations between the ongoing scientific study, description and treatment of multiple personality disorder and the evolution of multiple personalities as a human kind.
To complicate matters further, reflexive practices also can be distinguished by practitioners’ motives or intent: reflexivity can be intended or unintended, desired or scorned, engaged or eschewed. While Gordon Allport’s (1940) enumeration of psychology’s mutations caused by unreflecting professionalism was an intended reflexive act, postwar psychologists’ extensive use of combat, brainwashing, and war experiences to forge models of self as vulnerable even to emotional assault apparently was not (Lutz, 1997). Even if unintentional, reflexivity nevertheless can influence the knowledge produced. Most commonly, psychological scientists disregard reflexivity; yet even dismissals of reflexivity can be reflexive acts. For scientists, reflexivity can be a possibility or a problem, a window or a mirror.

With a handful of exceptions (Capshaw, 1999; Flanagan, 1981; Gadlin and Ingle, 1975; Morawski, 1992, 1994; Richards, 1987; Unger, 1983), reflexivity, in any of its formulations, has not been extended to explore the conditions and possibilities of experimental psychology. In fact, psychology constitutes a science that might be defined expressly in opposition to the very prospects of self-reflection. The ‘new psychology’, emerging as a body of organized knowledge at the end of the 19th century, defined itself in contrast to an extant moral psychology and mental philosophy that insisted upon sustained, even rigorous reflection. By contrast, the newly defined scientific psychologists associated reflexion with dangerous elements of subjectivity that ever threatened to contaminate experimental procedures. Shifting the analytic gaze from inward to outward and from the self to others, the new psychology explicitly distinguished itself from those moral and mental sciences that predominated in colleges and universities. Rejected via this distinction was the premise of J. Clark Murray, writing in his 1885 mental science textbook, that mind is equivalent to self, the ‘me’, the ‘ego’, and the ‘knowledge of what is passing within me’ I called consciousness’. Murray claimed ‘it is only through this accompanying consciousness, directed by proper precautions, that we must investigate the mind’ (1885: 4–5). Similarly dismissed was James McCosh’s description of investigative methods: ‘In psychology we make our observations by self-consciousness, which is the power by which we take cognizance of self as acting; say as thinking or feeling, as remembering the past or anticipating the future, as loving, fearing, resolving’ (1886: 1–2). Murray, McCosh, and their contemporaries valued the powers of the observing ego and the agnotic subjectivity of properly trained consciousness. Against such depictions of the psychologist’s obligations vis-à-vis reflexive processes, the new psychology aspired to objective purity and removal of the observer’s subjective experiences. As Robert Yerkes noted, psychology was yet a ‘subjective science’ in 1911, and ‘The least that any of us can do is to learn to observe psychological processes. … This much we owe to ourselves as educated members of civilized races’ (1911: 13). Objectivity became the banner of early 20th-century experimental psychology as researchers paradoxically discarded with moral certainty pre-existing research practices on the grounds of their moralism and subjectivism; instead, they ordained objective experimentation with its moral order and ethics of disinterestedness and distance (Leary, 1980; Toulmin, 1975; Porter, 1995).

During this period of scientific progress, however, psychologists sometimes did display reflexive self-regard, notably about the subject position of the experimenter (the ‘E’, as the experimenter was identified in published reports for decades). Occasionally a psychologist would bracket this scientific ideal of objectivity and analyse its central tenets. Such instances of self-regard often engaged reflexivity of the second form, the self-referential quality of theory, and hence the scrutinizing psychologist challenged the core belief that the E stood outside of the psychological phenomena and somehow remained exempt from the psychological phenomenon under study. Sometimes the self-regard concerned the third form of reflexivity, the relational dynamics between reality and accounts of reality. On such occasions the skeptical psychologist would consider how what we take to be reality is contingent upon our prior understandings of that reality or even how what we take to be reality can dynamically shape that reality. The experimenter is implicated in the dynamic making of accounts of the world and, consequently, of the world itself. Such occasional acts of self-conscious attention to the subject status of the experimenter were rare and pushed unnervingly against an increasingly powerful and seamless commitment to experimentation. Objectivity as avowed in scientific method demanded either the total eradication or practical irrelevance of self-consciousness.

As the conquest of experimental psychology indicates, such reflexive acts (or acts positing the inescapable presence of reflexivity) ultimately failed to persuade the scientific psychology community that their experimental techniques do not map the psychic world objectively. Even as failures, or perhaps because they failed, the rare instances of psychologists’ self-regard provide opportunity for us to better understand what, in light of such powerful institutional consensus, was contended in the new scientific program, who staged such contestations, and what strategies were used to challenge the experimental canon. As a means to better understand such scientific contentsions, I consider three psychologists who engaged reflexivity and examine their strategies of resistance, the responses of their scientific communities, and the alternative science they intimated. The three instances of critical reflection occurred between 1890 and 1934, a period spanning from publication of the first experimental textbooks, establishment of university laboratories, and formal organization of psychologists into professional societies (notably the APA), to the maturation of a consensual model of experimentation just four decades later. William James’s ‘psychologist fallacy’, introduced in his classic 1890 textbook, comprises the first case, followed by Horace Bond’s 1927 critique of research on race differences in intelligence and Saul Rosenzweig’s
1933 use of psychoanalysis to uncover the ‘psychological problems’ of the psychology experiment. All three critics ultimately were unable to persuade fellow experimentalists to acknowledge the epistemological and consequently methodological problems embedded in experimental techniques. These very failures show the resilience of the experimental program even while they reveal a psychological moral order of agents – the experimenter as a human kind – that has been sustained by that program.

WILLIAM JAMES AND THE PSYCHOLOGIST’S FALLACY

Readers familiar with the uncertainty reverberating through William James’s call for a scientific psychology in the latter part of the 19th century, an ambivalence apparent even in his 1890 Principles of Psychology, will not be surprised that he both located inadvertent reflexivity – of the scientific practice or the scientist – and called for more self-conscious reflexive regard. While writing Principles, James grew more insistent in urging the new psychology to replace centuries of metaphysics and mental philosophy with robust scientific conceptions of the mind. But his insistence that psychology be more scientific – be grounded in empirical observation and not metaphysics – was not unequivocal, and during that same period he grew more concerned about an epistemic problem in this science, the problem of the knower’s position. Before publishing Principles, James sometimes referred to this problem as the psychologist’s ‘personal equation’ or the psychologist’s ‘dilemma’ (Leary, 1995; R. J. Richards, 1982). With an abiding commitment to indeterminism and free will, and to self-reflection as an invaluable human capacity, James could not wholly endorse the idea of the passive knower/observer who inhabited positivist doctrines and laboratory reports. His conception of scientists’ complex subjectivity, along with his commitment to indeterminism, led him to posit a knowing self as inescapably present in the production of scientific knowledge. In 1878 James wrote:

The knower is not simply a mirror floating with no foot-hold anywhere, and passively reflecting an order that he comes upon and finds simply existing. The knower is an actor, and co-efficient of the truth on one side, whilst on the other he registers the truth, which he helps to create. Mental interests, hypotheses, postulates, so far as they are bases for human action – action which to a great extent transforms the world – help to make the truth which they declare. (Quoted in Leary, 1995: 93)

As David Leary observed, ‘at the root of James’ new approach to science was his conviction, bred of experience, that the interests of the scientist himself or herself are the sine qua non of his or her distinctive insights into reality’ (1995: 94). James’s apprehension of the palpable and unique interestedness of the individual scientist buttresses even his psychological explanation of ‘great men’. It is the distinctive interests of geniuses or great men and not their methodical adherence to epistemic or methodological rules that enable them to generate creative acts or visions (James, 1890).

James’s perspective on subjective knowing undoubtedly also informed his conception of what he termed the ‘psychologist’s fallacy’ (James, 1890). Just as the idiosyncrasies of subjective knowing spawn creative acts, so can they mislead knowers into idiosyncratic accountings of psychological phenomena. The psychologist’s fallacy, introduced in Principles, represents one such effect of a researcher’s subjective interests. The fallacy involves the psychologist’s (subjective) ‘confusion of his own standpoint with that of the mental fact about which he is making his report’. In actuality, the psychologist stands outside the mental state he speaks of. Both itself and its objects are objects for him. ‘Despite this two-step distance from the psychological phenomenon under investigation, James found it understandable that ‘He himself, the psychologist, meanwhile, knowing the self-same object in his way, gets easily led to suppose that the thought, which is of it, knows it in the same way in which he knows it, although this is often far from the case’. He claimed (accompanying the claim with a visual representation): ‘What the thought sees is only its own object; what the psychologist sees is the thought’s object plus the thought itself, plus possibly all of the rest of the world’ (1890: 197). For it is the case that ‘The mental state is aware of itself only from within; it grasps what we call its mental content, and nothing more’ (ibid.). He found this fallacy operating in the English and German traditions of 18th- and 19th-century psychology, and its continued ubiquity in 19th-century American faculty psychology posed a scientific risk. The fallacy is a ‘snare into which no psychologist has kept himself at all times from falling. . . . We cannot be too watchful against its subtly corrupting influence’ (1890: 196–7).

James’s account of the psychologist’s fallacy as one of the ‘snares’ of the psychologist contained at least two messages. On the one hand, this criticism of psychologists’ positing of entities (be they unconscious stuff, perceptions, or sensations) corroborated his emerging radical empiricism and its construal of the psychological as process – as an ongoing ‘stream’ and not a static phenomenon. Psychologists who hypothesize entities simply and erroneously presume to know the structure and substance of another’s thoughts. He indicted the structuralist, Lockeian, and Spencerian psychologists alike for such basic misrepresentations of the psychological as fixed or concrete. On the other hand, the fallacy belied the dominant conception of scientific observation, which assumes that the scientist can and must set aside personal perspectives (all things generally referred to as ‘subjectivity’) in order to apprehend the dynamic complexity of the world. This latter message about
the inescapability of subjectivity lent support to the immediately preceding discussion in *Principles* in which James chides comparative psychologists who ransack ideas in their comparative analysis: comparative psychologists' anthropomorphizing invocations of mental models is 'necessarily wild work, in which the personal equation of the investigator has things very much its own way' (1892: 195).

Given that *Principles* is comprised of what one historian aptly called 'a wild mixture of many things' (Reed, 1995: 62), both meanings most probably are viable. Identifying the psychologist's fallacy vindicated pragmatist tenets of the pluralism and dynamism of the world while simultaneously illustrating how scientific objectivity fails to contain or curtail investigators' personal beliefs and inclinations (Heft, 2001). Whatever his intent, however, James's scornful appraisal of the fallacy reveals his deep investment in the problem: he described the fallacy with terms such as 'counterfeit', 'corrupting', 'fictitious', and as yielding 'confusions'. James's construal of the fallacy also intimates a dilemma of reflexive thinking itself. Reflexive critique situated outside the psychologist's 'boxes' and outside the fallacious attributions made by psychologists itself encounters a paradox of reflexivity: critical reflection, too, could be charged as a 'meta' psychologist's fallacy rent with subjective beliefs and interests.

Despite repeated homage to James, his peers and successors largely ignored the fallacy, save innocuous mythic references to E. B. Titchener as guilty of committing it in his introspection experiments. The matter of the psychologist's fallacy vanished with the implementation of a scientific epistemology that elevated the psychologist-observer above routine subject (and subjective) positions. James Roland Angell's 1904 textbook defines not the scientist's subjective status but the superior 'psychologist's standpoint' (Angell, 1904: 8) whereby the knower stands distant from all natural phenomena, including the processes of his or her mind. George Trumbell Ladd's 1899 text acknowledges the psychologist's subjectivity but actually inverts or, rather, projects the fallacy onto other persons and evades the matter of its occurrence in psychologists: 'True, self-perception is often self-deception.' Ladd offered an example: 'To suppose that what we "think about" our psychoses is a true description of the actually existing psychoses themselves, has fitly been pointed out as chief of the psychologist's failures' (Ladd, 1899: 11).

Although Ladd presented the psychologist's fallacy it appears he did so in order to admonish not psychologists but ordinary actors of their own fallacious psychological logic. One notable exception to the abeyance of the fallacy is Mary Calkins's perspective. Calkins (1901) subscribed to James's idea of the psychologist's fallacy and carefully described how even experimental study of 'consciousness other than one's own' does not escape the snares of the fallacy. Little else is heard about the psychologist's fallacy until it becomes of archival interest a century later.

For the experimental psychologist of the early 20th century, objectivity was that 'self-command triumphing over temptations and frailties of flesh and spirit' (Daston and Galison, 1992: 83; Daston, 1992). Objectivity was attainable through rigor, repetitious training and sustained effort. As G. Stanley Hall asserted, his cohort of 'new' psychologists largely agreeing, research training 'emancipates the mind from error and superstition' (1894: 713). Although Ladd discreetly warned how psychologists' self-perceptions could be misperceptions or self-deceptions, he nevertheless lauded objective techniques and the psychologist's advantage. Most of Ladd's scientific colleagues probably would concur with his textbook declaration that the 'trained psychologist understands not only the child, the idiot, the madman, and the hypnotic subject, but also the artist, the scientist, the statesman, and the thinker, as psychological beings, far better than any of these classes understand each other, or even themselves' (Ladd, 1894: 21). Experimental psychologists' deep conviction to a positivist version of objectivity – to either eradication of or self-control over self-reflection as well as to quantification and deductive logic – ultimately exonerated them from scrutiny. Rigorously trained objective psychologists needed no special interrogation of the psychologist's psychology. However, the more strenuous-minded suspected that additional controls were needed, proposing, for instance, that only mechanical recording devices ultimately 'shall free us from the observational imperfections of the experimenter' (Yerkes, 1915: 258) or that scientists needed external controls over their work. Most researchers probably read without concern statements such as arch-experimentalist Robert Woodworth's methodological claim that members of the inferior races were 'admirable subjects for the psychologist', but only if the experimental situation was not elaborate – 'If the tests are put in such form to appeal to the interests of the primitive man' (Woodworth, 1910: 979). Psychologists' psychology of the 'other' went largely unquestioned. In other words, questioned only rarely was the experimental psychologists' dual model of persons: the experimenters' cognitions are independent of their material and social status – their race, gender, class, and religion – but the subjects' individual differences and cognitions are causally connected to their social status.

Yet there were some challengers in the triumphant march of objective experimentation. Not all of Hall and Ladd's contemporaries took the astutely trained objective experimental scientist to be an epistemic given, an 'unmarked' category. Not every psychologist perceived the experimenter as an unproblematic position that transcends subjective states, class, race, or history. A few psychologists saw more than self-controlled disinterest transpiring in the psychologist's objective standpoint.
One dissent from the canonical model, the scientific order of two kinds of participants (experimenter and subject), was a young University of Chicago graduate student in educational psychology, Horace Mann Bond. Arriving at Chicago in 1924, the 19-year-old African-American faced racism and financial difficulties. While taking a leave of absence to earn funds to continue graduate studies, Bond conducted several empirical studies of race and intelligence. Opposing the hereditary explanation of the reported race differences in intelligence tests, particularly the interpretations of the army testing conducted during the First World War, Bond challenged both the root assumptions and methods of that theory. He conducted an experiment on psychologists’ working presuppositions about their identity and value neutrality. In the end, he challenged even the mission of American Negro intellectuals. Bond’s work responded to W. E. B. Du Bois’s insistence that African-American intellectuals must challenge the racism perpetuated through so-called scientific research. While still a student, Bond called for critical interrogations of the false knowledge that aims ‘to demonstrate that the Negro is intellectually and physically incapable of assuming the dignities, rights and duties which vest upon him as a member of modern society’ (quoted in Guthrie, 2004: 76).

Bond’s study was published in The Crisis, a periodical established by the African-American scholar Du Bois. Thus, it appeared neither in a standard experimental psychological journal nor in the form of a standard experimental report. Without the constraints of scientific writing style, Bond engaged parody and sarcasm in his paper, and without the constraints of ‘objective’ and dispassionate authorial voice, he described and executed a reflexive analysis. As an African-American working at the margins of a profession dominated by whites (Guthrie, 2004), Bond stood ‘outside’ the scientific community in significant ways, yet his skills with empirical methods, while boldly parodying psychologists’ investigative techniques, were in general accordance with the experimental orthodoxy of the day. His 1927 study marked the racially unmarked experimenter by demonstrating how the observer’s race affected test outcomes. Employing a Negro experimenter to administer intelligence tests to a sample of Negro children, Bond found a wide-ranging distribution of IQ scores, including a number of high-scoring or ‘exceptional’ children. Through what we might now call ‘racing’ and thereby ‘outing’ the white experimenter, Bond produced far more than a methodological coup. He confronted white experimenters with their so-called experimental ‘rules’ by portraying the race research program as a dubitable rule-bound ‘game’. The metaphor of a game made it possible to reveal how the rules were not just those of experimental methods but also of whiteness. These raced rules were simple:

First, one must have a white examiner; a group of Negro children; a test standardized for white children tested by white examiners; and just a few pre-conceived notions regarding the nature of ‘intelligence,’ the degree with which Negro children are endowed, if at all, with this faculty and the fact that the social status of Negro children need not be considered as an extra allowance for scores different from whites. (Bond, 1927: 257)

Hidden but not undetectable assumptions about race were translated into explicit rules. The game involved the following rules:

1. The experimenters/examiners are white.
2. The children (subjects) are Negro.
3. The intelligence test is standardized on white subjects.
4. The test is standardized by white researchers.
5. Certain assumptions about nature of intelligence (as largely innate) and of Negro children’s intelligence (as inferior to white children’s) are tacitly held.
6. Social status of the subjects is ignored.
7. It is assumed that high-scoring whites come from families of high social status because the family is intelligent.
8. The experimenter establishes rapport with white students.
9. The experimenter is not expected to establish rapport with Negroes.
10. If the experimenter does not establish esprit cordial with white testees then results of the game might not be valid (but the converse does not hold).

Finally, Bond noted how the game intensified once the researcher fortifies these presumptions with ‘a vast array of statistical tables, bewildering vistas of curves and ranges and distributions and other cabalistic phrases with which we clothe the sacred profession of Psychology from the view of the profane public’ (1927: 257). The game, after all, was not simple racism.

Bond ‘broke’ at least two of these rules of scientific psychological research in his study. First, ‘he believed that, as white investigators are able to gain fullest rapport with white children, the same thing might be true of Negro testers with Negro children’ (Bond, 1927: 258). Second, the experimenter volleyed variables; for instance, ‘instead of discounting environment to begin with, he kept it in mind as a possible factor’ (ibid.: 257). Bond learned to play this game in ‘two of the leading psychological laboratories of the country’, adding that he ‘learned over backward’ to maintain “scientific” accuracy (ibid.: 258). The data ‘made at once evident that the game was made for white psychologists to play with Negro children’ (ibid.: 259). This parodying metaphor of gaming made visible some tacit (either conscious or unconscious) cognitions, pressing readers to comprehend experimenters’ cognitions as essentially part of science. Such cognitive processes constitute the practice of objective experimentation; they are not residuals or artefacts. The
rules as articulated by Bond are not technical difficulties but, rather, they describe science as it is practised.

Bond, the outsider, might have taken but did not take the problem to be only a problem for others – for white experimenters. Instead, he concluded the article with stringent counsel to Negro parents, admonishing them to greatly intensify their efforts to educate their children. His demands on Negro parents were substantial: he advised them to supplement their child's formal education with home education to such an extent that the child would be able to finish formal schooling two years earlier than the conventional age of graduation. According to Bond, the scientific game and the world sustained by it requires serious compensatory actions on the part of Negroes; reflexive knowledge gained by the double consciousness of a minority scientist enabled a perspicuous critique of racist knowledge or racism in general but taken alone was insufficient to liberation.

Bond's career was spent mainly as an educator and writer, not as an experimental psychologist. However, he continued testing his radical environmentalism, demonstrating not only the impoverished world in which many American Negro children were raised but also how environment enrichment causally enhanced their intellectual functioning (Bond, 1933, 1943, 1972). His undergraduate education was in black colleges, and his own parenting reflected his theoretical commitments to environmental causation, environmental enrichment, and parental responsibilities. While the legacy of the environmentalism advanced by Bond and his colleagues still remains visible in social programs and policy, his empirical and reflexive demonstration of the tacit rules and racial biases of experimentation – along with the racial subject status of the experimenter – have been less robust. In fact, Bond's professional life as one of very few blacks trained in psychology before the 1960s required enduring the largely unacknowledged racism of that scientific community; his life itself was evidence of the (racist) rules of science. His career mainly entailed administrative positions in black colleges and his empirical work, although continuing throughout his career, remained in the margins of social science (Jackson, 2004; Urban, 1989, 1992). In the decades following publication of his race reflexive study, the race of the experimenter 'problem' remained unapproached. The problem was resolved in a gentle and gentlemanly way, smoothed by the concept of 'rapport', a posited relationship between researcher and subject that transcends racial differences. Eventually the experimenter's characteristics were relegated to the domain of so-called 'experimental artifacts', and techniques were devised to contain and manage these unwanted artefacts (Morawski, 1997). Most concern with the experimenter's race persists in construing the problem as one of the subject's cognitive biases, not the experimenter's.

Whereas James situated a reflexive condition in the experimenter's observational stance, and Bond located reflexive dangers in the purportedly scientific rules of experimentation, Saul Rosenzweig detected reflexive processes throughout the 'experimental situation'. Rosenzweig's critique implicated all participants: experimenter, subject and, indeed, the full social dynamics of that setting. Backing one step out of the laboratory, the new PhD engaged the apparently 'well-known' but neglected fact that 'the experimental situation in psychology is itself a psychological problem' (Rosenzweig, 1933: 337). The psychology experiment functioned through a psychology not posited in the experimental hypotheses; this deeper psychology of the psychology experiment directly involved the experimenter. Rosenzweig's excavation of this other psychology beckoned scientists to a critical reflexivity in order accurately to understand the 'psychological problem' of the experiment.

Although barely 17 pages long, Rosenzweig's analysis of the experiment's psychology weaves psychoanalytic insights, technical know-how, and common-sense observations. Its elaborate structure contains three analytic tropes: analogy, algebraic modeling, and psychoanalytic interpretation. An analogy is made with chemistry but mainly to reveal the limits of such an analogy. Readers are reminded that the prototypic experiment in chemistry (taken to be an ideal experimental model) cannot be realized in psychology. Unlike a chemical substance, the psychology subject can introduce his or her own 'experimental materials' (motives) and 'vitalize the experimental results': 'such a situation is impossible in chemistry, for example, for chemicals have no power of self-determination' (Rosenzweig, 1933: 338). Rosenzweig also attempted, albeit with partial success, to describe the relations between experimenter and experimentee and between experimental materials, experimenter, and apparatus in algebraic equations. To signal these role relations, he proposed that the experimenter be called 'Er' and the experimentee or subject 'Ee', symbols which reduce certain distinctions between observer and subject. Posed to the readers are such logical relations as 'There is a type of psychological experiment – the introspective – in which the office B-2 (observer) belongs not to the Er but to the Ee' (1933: 338).

The rhetorical tropes of analogy and algebraic logic recede as the text proceeds to introduce a psychoanalytic interpretation of the experiment's 'psychological problem'. By the second page Rosenzweig proclaimed: 'The difficulty in psychology . . . is that everyone is a psychologist,' and the remainder of the article traces this human condition as it transpires in concrete experimental situations (Rosenzweig, 1933: 338–9). This psychological problem takes three forms. First, the subject, an 'everyone' psychologist, is able to introduce experimental materials or variables (motives,
interests, emotions) into the experiment. In actuality he or she becomes a psychologist as well as a subject. Further, in those experiments requiring introspection or the subjects’ report on their own cognitive state, the subject might serve as experimental material as well as subject and experimenter. The subject can introduce his or her own ‘observational attitude’ which might not be the attitude ‘expected by’ the formally designated experimenter. Finally, the ostensibly disinterested and distanced experimenter actually can be part of the experimental materials and, as such, inadvertently supply stimuli in addition to the intended ones, thus interfering with the hypothesis-testing. The experimenter can impart motives and intentions that have a ‘suggestive significance of marked consequence to certain experimental results’ (1933: 352).

The troubling analogy to chemistry and the logical display of complications, then, is trumped by a taxonomy of psychic excess – a plethora of suggestions, motivations, signals, and emotions which fill the experimental setting. Rosenzweig categorized this excess psychological stuff by adopting and extending arch-experimentalist Claude Bernard’s classificatory system that posits that experimentation on living animals requires experimenters to consider both the external (‘extra-organic’) and the internal (‘intra-organic’) environments. He called the human psychology experimental situation a third environment, a ‘social environment’. This social environment ‘in the course of experience becomes internalized in the form of standards, ideals and taboos’ (Rosenzweig, 1933: 345). It comprises the psychological processes as well as the ‘problem’ of the psychological experiment. These psychological processes are described as motivational or attitudinal but, in actuality, they exceed these categorizations. Rosenzweig appealed to readers’ scientific common sense by supplying a heady list of psychological processes and events transpiring in the laboratory: ‘How many subjects in a psychological experiment are purely receptive? How many are willing fully to adopt the humble role of subject in an investigation of their motives, aims and thoughts? Most as a matter of fact, are carrying on a train of psychological activity that is rather about the experiment than a part of it by intention of the Er’ (1933: 342). The subject is most likely thinking ‘Where did I see that man before? – What is he getting at anyhow? – I wonder if he will ask me about this? – I won’t tell him about that. – Could II have been here for the same test? – How stupid that experimenter looks! – What a loud necktie! – How stupid he must think I am! – When will this be over?’ (ibid.). The subjects’ psychological activities are manifold, including extraneous motivations, critical self-scrutiny, curiosity, pride, critical attitude, deception, critical complaint, self-justification, compliance, suggestibility, egocentrism, prediction, disinterestedness, and self-critical appraisal among other actions that take place in specific experimental situations. With myriad motives and attitudes at their disposal, subjects are amply equipped to alter the experiment strategically. The subject’s participatory powers even can eclipse the experiment itself because he might ‘as a result of self-conscious control of his reactions, surreptitiously take over certain functions of B belonging rightfully to the Er’ (1933: 341). The subject’s defensiveness also can result in untruths, even in bald lies. ‘Pride’, for instance, causes the Er ‘to reflect about this behavior in the experimental situation and then to modify it in accordance with certain opinions that arise in his mind as a result of these reflections’ (1933: 344). Through a complex play of such psychological exchanges, experimental veracity can be undermined and ego-driven aspirations can reign.

Nor is the experimenter free from psychological machinations. The very embodiment of the experimenter, his or her physical presence in the experimental situation, affords psychological material for complicating the experimenter’s psychological effects. Rosenzweig argued, ‘Whether the Er is, for instance, a man or a woman, white or black, Jewish or Gentile, are factors that may make a difference to the attitude and reactions of the Er’ (Rosenzweig, 1933: 351–2). The experimenter’s personality, replete with unacknowledged dimensions and unpredictable daily fluctuations, also affects experimental conditions. Rosenzweig labeled these factors an ‘error of personality influence’. The experimenter similarly is prone to ‘suggestion-error’ whenever she or he ‘by some specific but inadvertent act imparts to the Er an unintended motivational or cognitive determinant’ (1933: 352). Suggestion errors can be subtle but influential such that merely an ‘unguarded word, nod or glance from the Er may have a suggestive significance of marked consequence to certain experimental results’ (ibid.).

This thicket of psychological exchanges not regularly noted by experimenters is persuasively surveyed through Rosenzweig’s measured use of psychoanalysis. Subjects’ motives and experimenters’ attitudes traverse the unconscious as well as conscious domains. The experimental field is crowded with ego-sustaining characters whose interests embarrass even the experimenter. As the author argued, ‘Common sense has long understood the methods of social intercourse – tact, subterfuge, amenity and confidence – but only on the advent of psychoanalysis’ specifically with its investigation of transfer and methods of free association, has scientific psychology been able to treat the problems (Rosenzweig, 1933: 345–6). Psychoanalysis teaches experimental psychologists the ‘importance of the naïve attitude on the part of the subject’ (1933: 346). Consistent with this mobilization of psychoanalysis as an explanatory resource, Rosenzweig brought closure to the critical analysis by introducing remedies similar to psychoanalytic management of transference and countertransference. Regulating the experiment can be best achieved by maintaining the ignorance of the subject. Naïve subjects show ‘readiness to accept determinants from the Er and react uncritically’ (ibid.; original emphases). He recommended naïveté be achieved by using
children and 'unsophisticated adults', introducing special procedures for surreptitiously arousing the subject, employing 'secret' observations, and keeping the subject ignorant of the researcher's objective (subjects' ignorance is most effectively achieved through techniques of deception).

Such investigative controls aim to manage the psychological possibilities of subjects but do not address the problems of the experimenter. Rosenzweig noted that the experimenter's identity and personality idiosyncrasies do not pose problems if the experiment can be designed to proceed without the experimenter's presence. If it is impossible for the experimenter to be absent, he recommended 'systematic variation of Ers with comparable groups of Ees' (advice that echoes the methodology of Bond's study) (Rosenzweig, 1933: 352). The experimenter's 'suggestion errors' (which impart certain motivational and cognitive information to the subjects) pose a more difficult issue, and they can be solved only by the experimenter's impeccable self-restraint, which Rosenzweig admitted entails 'a histrionic act of no little difficulty' (1933: 353). Similarly challenging is the experimenter's understandable (ethical) hesitation to use deception, to lie. On this moral matter experimenters were advised to overcome such 'natural inhibitions' or scruples and, instead, to remember that 'the scientific end justifies the scientific means' (1933: 349).

Rosenzweig's critical testimony on the reflexive dynamics of experimental participants (with their plenteous and uncontrolled psychic forces that endanger the experimental outcome) is purportedly sutured through psychological (psychoanalytic) insights. The foreclosure or harnessing of these psychic forces requires two distinct kinds of experimental actors: the untrustworthy (subjects) and the trustworthy (experimenters) who ironically were instructed to be untrustworthy during the experiment. Despite its concrete remedies for the problems of the psychology of the psychology experiment, the critique and solutions received scarcely any consideration in the subsequent psychological literature. In fact, the idea of employing the terms experimenter (Er) and experimentee (Ee) met with staunch opposition by a leading researcher and gatekeeper of psychology, E. G. Boring. Andrew Winston has investigated Boring's sustained and successful efforts to suppress the use of these terms on the grounds that they are confusing. Winston concluded that Rosenzweig's elucidation of 'the uniquely social nature of experimentation with humans was potentially problematic for a unified, nature science view of human and animal psychology' (Winston, 2004: 63).

In a subsequent prolific career, albeit one largely at the margins of mainstream psychology, Rosenzweig continued to unite psychoanalysis and experimentation. He did so not by applying psychoanalysis to probe experimental dramas; instead, he harnessed experimental techniques to probe psychoanalytic concepts, notably those of fantasy and repression. This shift—from the experiment as a psychological (psychoanalytic) problem to psychoanalysis as a good experimental problem—avoids the reflexivity problems he had exposed. The subjects' conscious and unconscious motivations become variables; they are no longer threats to experimentation. In these studies the experimenter implicitly assumes some of the psychoanalyst's acumen.

Rosenzweig's self-identity as a Jew may have influenced his choice of psychological theories, yet the very admission of Jewish scholars into the scientific academy might have shaped that community's understanding of science. 'The Experimental Situation as a Psychological Problem' was published in the same year as T. S. Eliot's infamous pronouncement that 'any large number of free-thinking Jews' poses an impediment to the flourishing of a Christian tradition (quoted in Hollinger, 1996: 18). Few Jews held academic positions, and many faced discrimination when attempting to obtain them (Winston, 2002). The eventual dissolution of this ethnic barrier is connected not only with post-Holocaust attitudes but also with the articulation of a scientific ethos in its relation to democracy. In the years following the Second World War, science increasingly became an ideological marker for freedom from dogma and ideal citizenship. According to David Hollinger, the secularization of the scientific life provided guides to 'behaviour scientifically in social life' (Hollinger, 1996: 163). Perhaps postwar scientism contributed to continued neglect of Rosenzweig's discovery of the psychology of the psychology experiment. During the period of critical self-regard in the human sciences beginning in the 1960s, researchers implemented various technical procedures which presumably reduced if not eliminated the hidden psychology of the psychology experiment (Orne, 1962; Silverman, 1974; Suls and Rosnow, 1988).

Moral and political agents

These cases comprise a triptych of resistance to a rapidly congealing epistemology of scientific psychology. James, Bond, and Rosenzweig, albeit attending to distinct features of psychology's experimental situation and at different moments, all protested what Bruno Latour has described as the 'political constitution of truth' in science. That constitution directs how objects in the world are represented in formal knowledge: it 'also distributes powers, will, rights to speak, and checks and balances. It decides on the crucial distribution of competence: for instance, matter has or does not have will; God speaks only to the heart and not to politics' (Latour, 1991: 13). Science's political constitution of truth establishes separate parliaments, 'one hidden for things, the other open for citizens' (1991: 15). The three critics opposed psychology's developing political order of the laboratory in which the observers and objects of observation acquire attributes that essentially mark them as different classes. They exposed hidden features of the laboratory's constitution. The moral order of scientific psychology differentiates
certain kinds of humans, minimally those of experimenters and subjects. This moral order of agency is one in which, in Steve Woolgar’s words:

Some are reckoned more capable than others, some particularly good at certain kinds of interpretive work, others as having outlived their usefulness, and so on. At any time, the culture of the laboratory comprises an ordered moral universe of rights and entitlements, obligations and capabilities differentially assigned to the various agents. (Woolgar, 1988: 102)

James, Bond, and Rosenzweig inserted into the psychological experimental situation a critical voice of yet another agent, one who stands apart from the experiment’s well-ordered polity of agents. And they did so with the shared ambition to change that polity and the knowledge produced therein. Thus, in addition to a critical reflective gaze, these interrogators recognized reflexivity of the third form: they apprehended how accounts of reality are dependent upon and altered by pre-existing understandings – both tacit and formal understandings – held by observers of that reality. Each was acutely aware that the investigative technologies (human experimentation on psychological phenomena) were themselves transformative of those phenomena, specifically of our knowledge and self-understandings of human kinds. Each of them at least contemplated other, more promising versions of human kinds; they imagined a different psychology populated by different sorts of beings. James contested experimenters’ presumption to know other beings’ minds and to claim those minds have specific, fixed structures. He drew upon his pragmatist convictions to refute the positivist ideal of disinterested knowers: well before completing Principles he wrote: ‘The knower is not simply a mirror floating with no foot-hold anywhere’ (quoted in Leary, 1995: 93). For James, experimental psychology sacrificed process, the ebb and flow of experience, ultimately forfeiting certain potentials of human beings as protean creatures. Assumptions of pluralism, potentiality, and historical contingency made for better science, individuals, and societies (Coon, 1996, 2000). Rosenzweig challenged a different feature by insisting that what is of scientific interest is precisely what cannot be readily observed. The epistemic commitments of experimentation elide the invisible forces of the unconscious along with its rich intersubjective manifestations. He unveiled the social civilities of experimentation to reveal the uncivil subjective and intersubjective forces that determine experimental outcomes as much as do the designated experimental stimuli. Asserting and then reiterating ‘everyone is a psychologist’, he used proverbial wisdom to make a foundational claim that human experimentation is intersubjective. As Rosenzweig reflected years later, it was the insistence on the ‘crucial reciprocity between investigator and “subject”’ and that the “subject” was not really subjected to the aims of science (Rosenzweig and Rosenzweig, 2003). As conventionally understood,
well and ably utilized other psychology resources while still working within experimental psychology suggests ambivalence and not wholesale rejection of the science. James’s ambivalent volleys between science and idealism as well as between determinism and free will are well known, even earning him a biography with the title *The Divided Self of William James* (Gale, 1999). James himself understood that any psychologists who were to challenge the reigning science would be ‘outlaws from the tribe’ (quoted in Croce, 2002: 276). Bond, by contrast, exemplified the double-consciousness of being a member of a professional community while simultaneously required to live outside that community by virtue of his racial status. His later work charting racism in the south and serving black colleges underscores his political and psychological commitments, moved him further from the field of psychology (Bond, 1972; Bond and Bond, 1997; Urban, 1989, 1992). Rosenzweig’s ambivalence is more difficult to understand, given silence about his Jewish identity and its implications for his career, and given his subsequent, sustained effort to subject psychoanalysis to experimentation. In the end, ambivalence marks the course of their marginal status: by the time of his death James was practically an historical figure in psychology; Bond was an all-but-forgotten member of the psychological community; and Rosenzweig’s work found an idiosyncratic niche within the field of personality psychology.

The cases illuminate some conditions that enable and prompt psychological scientists to consider reflexivity. Yet, they might well appear dismaying: experimental science, at least in the case of psychology, has not fully acknowledged such critical interrogation. The psychologist’s fallacy was soon buried under the deepening confidence in the psychologists’ privileged (‘objective’) standpoint. Despite repeated experimental evidence indicating the effects of the experimenter’s race, that ‘variable’ is rarely controlled or observed in experimentation. Rarer still are examinations of racist presumptions in psychology’s core notions of difference and normality (Fine, Weis, Pruitt and Burns, 2004). And the motivations of subject and experimenter are largely ignored as experimenters presume them to have been eliminated through technical means. If anything, psychological subjects, although now called experimental ‘participants’, are assumed to be even less rational and less autonomous than they were when these critiques were advanced.

Thirty years after his bold experiment, Bond observed that research on race differences in intelligence remained mired in inadequate science. Even in the 1950s this research blindly applied a physical science method to ‘a degree that neither Niels Bohr nor W. Heisenberg would now find acceptable in interpreting research in physics’ (Bond, 1958: 520). In other words, the science that has been periodically diagnosed with ‘physics envy’ (Toulmin and Leary, 1985) retained a blind eye to some advances in modern physics and, instead, kept a steadfast focus on seemingly pure ideals of the scientific observer. The observer’s subjectivity remains one without identity and without any consciousness of the representations circulating throughout observation. Evelyn Fox Keller has described this particular scientist subjectivity as ‘invisible, autonomous, virtual – floating above the situated dependent, and very real work that scientists actually engage in the complex production of the scientific corpus, which can itself neither be seen on the canvas nor be noted for its absence’ (Keller, 1996: 419). This invisible but vital observer’s self gives rise to the dilemma that even this invisibility itself assumes a necessary subject behind the ‘subject-less’ observer.

**DILEMMAS OF THE PSYCHOLOGY EXPERIMENTER**

If we have gained some understanding into how and perhaps even why these three researchers elected to undertake reflexive-based critiques of an ascending scientific practice, then we encounter further questions about reflexivity and the psychologist. The very failure of their astute interventions directs us to a perplexity intrinsic to the very ideas of an ‘objective’ or subject-less observer. The problem is contained in the ever-haunting paradox described so well by Roger Smith:

“How are we to stand back from being human in order to observe what it is to be human? Even to attempt this standing back – and there are many ways in which it has been undertaken in pursuit of scientific truth – is a way of being human that, in turn, some other person will be able to study. (Smith, 1997: 13)

With this paradox in mind, we can see reflexive episodes somewhat differently. To conclude simply that psychology’s chief scientific method is constituted with impressive resilience (or rigidity) is to underestimate these critics’ insistence on the psychology of the psychology experiment. Ian Hacking (1995a, 1995b) and with him others (MacIntyre, 1985; Morawski, 2001b; G. Richards, 1997) have argued that the psychological sciences make just as they discover human kinds, and this dynamic process of making and finding must extend to the scientific investigators because they, too, are human kinds. The experimenter is a psychological kind that seems to fit Hacking’s (1995a) description of the ‘self-ascribed kind’: beings who actively participate in defining their own kind. The self-ascribed experimenter-human kind has changed with regard to and in reaction to reflexive critique. This experimenter-human kind periodically responds to the ever-present paradox of its very form – its being with and without subjectivity, being active and passive. In anticipation of this paradox, the experimenter-human kind has long cultivated and been cultivated as a split or ‘dissociated’ self, a self E. G. Boring advocated as early as 1929 (Boring, 1929). However, the...
altered scientific practices, then they nevertheless demonstrate that these scientific actors remain, in their psychology, history, and interestedness, very human kinds. In this circuit of responsive refinement, experimental psychologists comprise a way of being human that, in turn, others will desire to study.

NOTES

1 While laboratory experimentation became the principal method of inquiry, other methods (notably survey, correlation, and individual difference studies along with observational techniques) did not disappear. However, these other methods took second stage in textbook descriptions of psychological research methods and increasingly came to be evaluated in terms of their degree of adherence to some of the core ideals of laboratory experiments. For historical accounts of the rise of experimentation and its effects on the production of psychological knowledge, see O’Donnell (1979), Danziger (1990), Winston (1988, 2004), Evans (1990) and Morawski (1988).

2 Three exceptions to this disregard are examined in the present study. Another exception which could well constitute a fourth case is Gordon Allport’s presidential address to the American Psychological Association in which he delineated some cognitive and social features of the ‘psychologist’s frame of reference’ (Allport, 1940). Additionally contemporary cognitive psychologists occasionally note the reflexive problem created by psychologists’ presumed rational study of non-rational cognitions (see Morawski and Steele, 1991). Cohen-Cole (2003, 2005 [this issue]) uncovered extensive reflexive argumentation in the formative years of cognitive science. Lopes (1991) examined the ‘rhetoric of irrationality’ in cognitive psychology.

3 The implications of the work of Einstein, Heisenberg, and the quantum physicists for scientific method, especially for the observer of experimental events, have been much discussed. For an early example of such interrogations of the observer see Watson (1938). However, no notable psychological research program has integrated or even addressed these implications for human observers of human action. For a history of ‘modernism’ that incorporates both scientific and aesthetic origins of modernism, see Everdell (1997).

4 Feminist studies stand as an exception to this abeyance as does recent work using queer theory and race theory. However, even these exceptions typically reside at the margins of the discipline.

5 Roger Smith (2005 [this issue]) reviews the rise of thinking about reflexivity in the social sciences, noting the rarity of work on psychology. Smith also proposes the inscrutability of reflexivity in contemporary science and social science.

6 The three cases are among the small number of reflexive analyses. Although other such cases exist, these three, viewed together, clearly illustrate both how alternative models of being human underlie articulation of reflexivity in experimentation. The cases also show the influence of the writers’ marginal or liminal status in the profession.

7 The often quoted saying that IQ is what the IQ inventories test describes what
psychologists came to call 'operationalism', yet it also harbors a transgressive interpretation. That is, the saying could be used to suggest that the construal of intelligence existing prior to any scientific observations of intelligence shapes those scientific observations and, ultimately, our post-observational understandings of intelligence.

Possibly many researchers took the fallacy as a problem of the past. And by the time of his death, some already viewed James's work as outmoded. His obituary in the American Journal of Psychology noted that 'James, the psychologist, will long be held in high repute. Yet a growing science leaves even its ablest representatives behind; and despite the originality of his thought, the erudition that he so lightly carried, his consummate skill in inner observation, and his literary charm, the work that he has bequeathed to us will presently be superseded' (Editors of the AJP, 1910: 605).

Calkins argued that experimentation does not avoid introspection but that 'experimental methods are of value chiefly as they secure the stricter accuracy of introspection' (Calkins, 1901: 11). Even comparative psychology encounters introspection: 'Comparative psychology is the study of other consciousness than one's own. The most important objects of study are the conscious experiences of animals, of children, and of primitive men. Its methods are the careful observation of the words or actions of the animals and people whom it studies, and the inference of the conscious experiences that underlies these outer manifestations. Such inference involves introspection, because it consists in attributing one's own experience, under given circumstances, to other people; but this introspection, because imputed to others, must be distinguished from the study of one's own consciousness' (ibid.: 12).

The recent interest in James, particularly the psychologist's fallacy, comes not only from historians. Researchers working on ecological, pragmatist, or radical empiricist models view the fallacy as a constructive instance for generating psychological theories that do not rely on positivist doctrine. For example, see Heft (2001) and Fisher (2003).

Bond was to employ parody and satire much later in his career. When white segregationists attempted to resist the 1954 US Supreme Court decision that school segregation was unconstitutional, Bond conducted a quantitative analysis of the intelligence of these segregationists and their constituencies (Jackson, 2004). In his historical examination of this study, Jackson traces the use of parody by African-American intellectuals along with the non-reductionist and environmentally oriented features of 'Afrocentric' social science in the 20th century.

Bond has adhered to the conventions of strict method in psychology by controlling the variable of the race of the testers. His adherence to strict methodological conventions while at the same time parading those very methods demonstrates Du Bois idea of 'twoness' or the 'double consciousness' of the black scholar who understands both the world of the racist majority, including the academic milieu, and that of the American Negro (see Jackson, 2004).

Boring's defense of the strict notion of a passively responding subject echoed other experimentalists. In the 1920s efforts were made to eliminate the term 'observer' to designate experimental subjects. As J. F. Dashiel argued, 'in many contemporary lines of psychological investigation the so-called "observer" does no observing'! Much of the experiment is 'a matter of observation less to him (the subject) and more to the experimenter' (1929: 556).

14 Modernism, although often understood as aesthetics, was grounded in psychology. Everdell (1997) identified several core psychological features of modernism: self-reference or recursiveness that undermines the system; radical subjectivity over the concept of objectivity: the location of truth in a non-privileged subjective perspective. As Jarzombek has rightly argued, this psychology or 'modernist-intellection' is not what transpired in the emerging academic disciplines of psychology: the "history" of psychology, because it is both modern and yet a conservative force within modernity, is not well represented by the scientific-academic discipline that calls itself psychology. The history of psychology is everything but that history, and quite literally so, for one finds its various messages, theories and operative intentions in an almost infinite number of fields, including, of course, the arts, for it was there that the struggle to find suitable expressions of our liberated psychologized modernity is thought to play itself out the best' (Everdell, 1997: 25).

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