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JOHN B. WATSON'S 1913 "BEHAVIORIST MANIFESTO": SETTING THE STAGE FOR BEHAVIORISM'S SOCIAL ACTION LEGACY

*EL "MANIFIESTO CONDUCTISTA" DE 1913 DE JOHN B. WATSON:
PREPARANDO EL ESCENARIO PARA EL LEGADO DEL
CONDUCTISMO EN LA ACCIÓN SOCIAL*

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Abstract

John B. Watson's 1913 article "Psychology as the Behaviorist Views It" is widely known as the "behaviorist manifesto" that initiated behaviorism as a discipline and academic field of study. While the intent of the paper was to present behaviorism as psychology's path to becoming a natural science, Watson also insisted that empirical data and principles generated by such a natural science must be applied to solving human and social problems if the science was to have substantial meaning and validity. He suggested several areas of social interest (education, medicine, law, business) that were ripe for an application of behavioral principles. In subsequent writings over the next decade, Watson expanded his focus on social problems and their behavioral remedies, culminating in his 1924 book *Behaviorism*, which aggressively confronted the eugenic fervor sweeping the United States during the first quarter of the century by espousing an extreme and at times polemical environmentalism. Watson's environmentalism and advocacy of social interventions reflected his comfort with the Progressive ideology of the time — a heritage that embodied Skinner's work and the rise of operant interventions in the 1960s, and now is found in the work of the many contemporary behavior analysts who are applying scientific principles to increasingly complex social problems.

Keywords: John B. Watson, application of behavioral principles, social action, environmentalism, eugenics

Resumen

El artículo de Watson de 1913 “La psicología desde el punto de vista del conductista” es ampliamente conocido como el “manifiesto conductista” que dio inicio al conductismo como una disciplina y como un campo de estudio académico. Si bien el propósito del artículo era presentar al conductismo como el camino para que la psicología se convirtiera en una ciencia natural, Watson también insistió en que los datos empíricos y los principios generados por dicha ciencia natural debían aplicarse en la solución de problemas sociales en humanos para que la ciencia tuviera un significado sustancial y validez. Sugirió varias áreas de interés social (educación, medicina, leyes, negocios) que estaban listas para la aplicación de los principios conductuales. En escritos subsecuentes a través de la siguiente década, Watson expandió su enfoque sobre los problemas sociales y sus remedios conductuales, lo que culminó en su libro *Conductismo* de 1924, que confrontó agresivamente el fervor eugenista que se propagó en los Estados Unidos durante el primer cuarto del siglo, al adoptar un ambientalismo extremo y en ocasiones polémico. El ambientalismo de Watson y su apoyo a las intervenciones sociales reflejaron su acuerdo con la ideología progresiva de aquel tiempo — una herencia que fue personificada por el trabajo de Skinner y el surgimiento de las intervenciones operantes en la década de 1960 y ahora se encuentra en el trabajo de muchos analistas de la conducta contemporáneos, quienes están aplicando los principios científicos a un número creciente de problemas sociales complejos.

Palabras clave: John B. Watson, aplicación de principios conductuales, acción social, ambientalismo, eugenesia

Watson’s 1913 “Behaviorist Manifesto” viewed psychology as a natural science with the goal of prediction and control of behavior, an appreciation of environment as a determinant of behavior, and the great potential to improve society through application of empirically-derived principles of behavior (Logue, 1994). His balanced view of the nature-nurture issue emphasized learning — “habit formation” in Watson’s construct — as a key mechanism for understanding the impact of the environment on behavior and thereby improve prediction and control of behavior. But beyond promoting the concept of learning to the psychological research community, Watson argued that one could — and should — apply scientifically validated behavioral principles to a wide range of pressing social needs and problems (Hart & Kritsonis, 2006; Mills, 1999). His linking of the goal of prediction and control with practical application to human affairs suggests that his reason “to learn general and particular methods by which I may control behavior” (Watson, 1913, p. 168) was to promote social change that improved society and make life better for its citizens (Salzinger, 1994; Samelson, 1981). Though the 1913 manifesto itself had only a very small impact on the scientific community, both immediate and long term, as measured by citations

and rebuttals (Leahey, 1992; Samelson, 1981; Todd, 1994),¹ it was the first behavioral foray into spirited intellectual conflict with other approaches to understanding behavior and the first to argue that empirically derived principles must be applied for the betterment of society. As one biographer observed, “his fight to make psychology an agent of social engineering had begun in earnest in 1913” (Buckley, 1989, p. 111). Therefore, despite the 1913 article’s limited impact, Hart & Kritsonis (2006) credit it with “spark[ing] the flame that has now blazed as the field of Applied Psychology” (p. 6).

Watson’s manifesto flatly contended that psychology must develop and promote practical principles that could remediate individual and social problems, a position in stark contrast to the psychology of the early 20th century that emphasized an internal focus on consciousness and introspection: “One of the earliest conditions which made me dissatisfied with psychology was the feeling that there was no realm of application for the principles which were being worked out in content terms” (1913, p. 169). Further, Watson charged the “pure psychologist” who is uninterested in potential applicability with “fail(ing) to understand the scientific aim in such problems” and in being “not interested in a psychology which concerns itself with human life” (1913, p. 170). He predicted the data generated by a “scientific psychology (that) plays a practical part in...daily routine” would be especially welcomed by “the educator, physician, jurist, and business man” who “could utilize (behavioral psychology’s) data in a practical way” (1913, p. 168).

Watson’s suggestion that the legal system, at least, would be a willing consumer of data-based psychology was on a solid foundation. Only a few years earlier, Louis D. Brandeis won a case upholding a state law that capped the number of hours women could work per day. In an analysis that became known as the “Brandeis brief,” he presented primarily sociological, psychological, medical, and statistical data related to the harm caused by excessive work instead of only the typical legal analysis and opinion (Johnson, 2012). The success of Brandeis’ argument legitimized the courts’ use of data to accompany legal analysis and changed how plaintiffs as well as defendants argued their positions (Johnson, 2012). It is not surprising, then, that one of the very few endorsements of Watson’s manifesto came from Weidensall (1913), who saw the behavioral approach as superior to introspection for working with the problem of crime and delinquency: behaviorism “may seem a bit radical but it in truth contains the outline of the kind of psychology we shall find most useful” (p. 232). Today, of course, experimental data generated by vigorous psychological research has confirmed Watson’s (1913) prediction that the practice of law (Skeem, Douglas, & Lilienfeld, 2009), medicine (Suls, Karina, & Kaplan, 2010), education (Heward et al., 2005), and business (Daniels & Daniels, 1999) were fertile grounds for research on and application of behavioral principles.

¹ Watson originally delivered a version of the manifesto, with the same title, on February 24, 1913 at the meeting of the New York Branch of the American Psychological Association; it too prompted little reaction either in support or opposition (Benjamin, 1981).

Watson's (1913) focus on generalizing laboratory-derived principles to improving daily life and solving social ills initiated the behavioral tradition of ideologically progressive social analysis, philosophy, and intervention (Mills, 1999). While his 1913 manifesto made him a symbol of the ideal of scientific inquiry to some (Bakan, 1960; Mills, 1999), his later works shifted from scientific analyses to suggestions for social and cultural change, many of which were provocative and not based on existing science, such as his child rearing proposals that parents should restrain displays of affection (cf. Skinner, 1959) or that children should be rotated every three weeks among different pairs of adults to avoid dependency (cf. Logue, 1994). Watson also saw women in a highly sexist manner and proposed a utopia that achieved efficiency but within a markedly authoritarian and tightly controlled society that socialized children to conform and retrained persons who deviated from expected behavior (cf., Buckley, 1989).² Watson's evolution to promoter of unconventional social practices was accompanied by a hyperbolic style that at times eclipsed his substance. However, Skinner admitted (1995) that he liked the "campaigning style" of Watson's 1924 book *Behaviorism* as it stridently advanced the primacy of the environment in the determination of complex human behavior while relegating heredity to a distinctly secondary role.

Skinner's admiration of Watson's "campaigning style" makes it unsurprising that even some behaviorists see the two pioneers as similarly over-enthusiastic proponents of behavioral societies, who make "extreme, polemical statements" that undermine the credibility of behaviorism (e.g., Logue, 1994, p. 121). "We will never know if, had Watson never made his more outrageous statements, behaviorism would still have lost popularity" (Logue, 1994, p. 122). Logue labels Watson's (1924) infamous "dozen healthy infants" statement "a crowning example of Watson's contributions in this [outrageous and controversial] direction" (p. 118), especially when the second, qualifying sentence is typically omitted (cf., Todd, 1994) when discussing the quote:

Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select — doctor, lawyer, artist, merchant-chief, and yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors. I am going beyond my facts and I admit it, but so have the advocates of the contrary and they have been doing it for many thousands of years. (Watson, 1924, p. 82; 1930, p. 104)

However, Logue (1994) noted that before the "dozen healthy infants" polemic, "Watson made many earlier, informed, balanced statements regarding the nature-

² Watson's social engineering designs should be evaluated within the social and cultural context of the times. For example, women as homemakers regained popularity after women attained suffrage in 1920 (Buckley, 1989). And like Watson, Skinner's (1948) behavioral utopia also received harsh criticisms dismissing it as a totalitarian dystopia (cf., Rakos, 1992).

nurture issue" (p. 120). Indeed, Skinner (1959) pointed out that *Psychology from the Standpoint of a Behaviorist* (1919), which he considered to be Watson's most important book, contained two chapters on heredity — "unlearned behavior — emotions" and "unlearned behavior — instincts." Watson stated here that "human action as a whole can be divided into *hereditary* modes of response (emotional and instinctive), and *acquired* modes of response (habits)" (1919, p. 224, emphasis in original), and further, "that there is no sharp line of separation between emotion and instinct. Both are hereditary modes of action" (1919, p. 262). Thus, throughout the second decade of the 20th century, Watson argued that behavior was a function of environmental circumstances as well as of hereditary factors; he advocated for environment-as-cause of behavior at a time when "nature" was often the dominant explanation for why people behaved as they did (cf., Kamin, 1974), introducing "nurture" as a second significant source of behavior. Watson (1913, 1919) was an unapologetic environmentalist, but at the beginning he was not an extreme environmentalist (cf. Todd, 1994).

Watson's adoption of extreme environmentalism

Watson did shift to an extreme environmentalist position in 1924 in *Behaviorism*, where he contended that the data made the concept of instinct unnecessary (because humans are born with only a set of simple instincts) and narrowed the concept of emotion to only three responses: fear, rage, and love. And while he acknowledged that physical characteristics are strongly inherited, he flatly dismissed the possibility that "mental traits" are similarly determined by genetics; the inheritance of both talent and criminality constituted

the older idea, the idea which grew up before we knew as much about what early shaping throughout infant life will do as we now know...the behaviorist... recognizes no such things as mental traits, dispositions or tendencies. Hence, to him, there is no sense to the question of the inheritance of talent as the question is ordinarily used. (Watson, 1924, p. 77-78; and similar in 1930, p. 98)

This is because "our hereditary structure lies ready to be shaped in a thousand different ways — the same structure mind you — depending on the way in which the child is brought up (Watson, 1924, p. 77; and similar in 1930, p. 97). Even Skinner (1959) saw in Watson an "extreme environmentalism" embedded in an admirable but probably excessively "crusading spirit" (p. 198).

Thus, the very important but still balanced environmental contribution to behavior evident in Watson's 1913 manifesto grew over the next 10 years to overwhelm the influence of genetic factors to such an extent that Watson was now considered to be "extreme" in his advocacy of environmental determinism even by ardent environmental determinists such as Skinner! But "he would not espouse the position he is now known for — that most human behavior is acquired — until approximately 1924"

(Todd, 1994, p. 99). This raises the question: Why 1924? And is there a relation between Watson's evolution to extreme environmentalism and his intensifying social action pronouncements?

Todd (1994) noted that after Watson lost his academic post at Johns Hopkins, he abandoned scientific restraint in favor of significantly increased stridency and extremism, such that there were "two Watsons — a pre-1920, academic Watson and a post-1920, postacademic Watson" (p. 167). Logue (1994) argued that Watson's shift from an even-handed consideration of heredity and environment to a position of bombast and extreme environmentalism was motivated by the need to make money and the desire to stay in the limelight after he left academia. While both these motivations were present (Buckley, 1989; Cohen, 1979), it is still possible that Watson's adoption of the extreme environmentalism first described in his 1924 book was influenced not only by personal gain but also by his passion for scientifically driven social change. This more charitable hypothesis is strengthened by the correlation between Watson's growing environmentalism and the increasing stridency, activity, and impact of the eugenics movement in America (Kevles, 1985), which argued that (a) heredity was the key determinant of behavior with the environment largely unimportant and, therefore, (b) government policies must ensure that America's superior genetic stock is maintained by preventing reproduction of persons with inferior genes, who can now be reliably identified by scientific intelligence tests. Watson's extreme environmentalism is the foundation for his response to the eugenic advocacy of discriminatory social engineering under the guise of "science." It is clear that Watson was aware of this controversial societal context:

But you say: 'Is there nothing in heredity — is there nothing in eugenics — ... — has there been no *progress* in human evolution. Let us examine a few of the questions you are now bursting to utter...(racial) differences are relatively slight...there will be differences in behavior but the burden of proof is upon the individual be he biologist or eugenicist who claims these racial differences are greater than individual differences. (1924, p. 76)

A few years later, in 1930 he observed that eugenics and enhancement of human evolution "excite so many people almost to the point of combat" (Watson, 1930, p. 96),³ including the leaders of American psychology (Kamin, 1974). In this struggle, Watson asked whether "the behaviorist has an ax to grind...by being so emphatic? Yes, he has — he would like to see the presuppositions and assumptions that are blocking us in our efforts...removed because then, and only then, can we build up a real psychology of mankind" (1924, p. 83). It is likely that the eugenics "combat,"

³ In fact, Watson changed the wording in the 1924 (p. 76) quote above from "Let us examine a few of the questions you are now bursting to utter" to "Let us examine a few of the questions which excite people almost to the point of combat." The issue's contentiousness appears to have intensified significantly in the six years.

which Watson entered in 1924, was also an important part of the “battle” to which Skinner (1959) referred, one that Watson engaged with “a crusading spirit” that Skinner (1959) seemed to both admire and find excessive.

Watson’s “combat” with the eugenicists was intertwined with, and contributed to, his fairly rapid and dramatic shift from an even-handed environmentalist to an extreme one who largely dismissed the importance of heredity. As noted earlier, his first foray into extreme environmentalism occurred around 1924 with the publication of *Behaviorism* (Todd, 1994), which was “published hurriedly as a series of lectures in print” (Watson, 1930, p. vii). These 12 lectures were delivered at Cooper Institute in 1924, at the height of the eugenic fervor. The fifth lecture, after four that discussed behavioral philosophy and theory and human biology and physiology, quickly presented his extreme environmental “thesis” and anti-eugenic position:

Everything we have been in the habit of calling “instinct” today is a result largely of training — belongs to man’s *learned behavior*. As a corollary from this I wish to draw the conclusion that there is no such thing as an inheritance of *capacity, talent, temperament, mental constitution, and characteristics*. These things again depend on training that goes on mainly in the cradle. (Watson, 1924, p. 75; 1930, p. 94; emphasis in originals).

Watson’s title for this lecture made it clear that his extreme environmentalism and anti-eugenic stance were directly linked: “Are There any Human Instincts: Part I — On the Subject of Talent, Tendencies and the Inheritance of all So-called ‘Mental Traits.’” Importantly, this linkage provides crucial context for the confidence Watson expresses, for example, in his ability to successfully raise “a *healthy, well-formed baby* born of a long line of crooks, murderers and thieves, and prostitutes” (1924, p. 82; 1930, p. 103; emphasis in originals). Further, his combat with the eugenicists sheds light on his choice of particular words to convey his extreme environmentalist message. Why did he specify that the ancestries of “crooks, murderers and thieves, and prostitutes” were irrelevant to upbringing? Similarly, in the middle of the “dozen healthy infants” polemic, Watson stated that in his own “type of world,” he can raise any healthy child “to become any type of specialist I might select — doctor, lawyer, artist, merchant-chief and, yes, even beggar-man and thief...regardless of his talents, penchants, tendencies, abilities, vocations and race of his ancestors” (1924, p. 82; 1930, p. 104). Again, why did Watson maintain the focus on paupers and criminals — the “beggar-man and thief?” And to whom is he “talking” when he says “and, yes, even beggar-man and thief” (emphasis added)? Finally, why identify “race of ancestors” as one of several unimportant hereditary characteristics?

The answer to these questions lies in recognizing that the “dozen healthy infants” statement was part of Watson’s response to nonscientific, ideological, and racially biased nativists (Todd, 1994). But it was more than simply a general rebuttal: Watson’s use of particular words and phrases reveals an extreme environmentalism that specifi-

cally and vigorously rebuts the challenge of the eugenics movement in America in the first quarter of the 20th century — at times almost word by word. Kamin (1974) argued that the statement also recognized that more generally behaviorism and social action were linked: it was not “the *reductio ad absurdum* of a mindless environmentalism run rampant... [but rather] a... recognition that the promises of behaviorism applied to human affairs cannot be realized without social and political reform” (p. 178). Thus, it is surprising that while Skinner (1959) recognized Watson as actively engaged in campaigning, crusading, and battling, he later (1974) came to consider the famous quote to be a “careless remark” that undermined Watson’s credibility. However, far from being “careless,” Watson was quite aware that he was “going beyond (his) facts” — unlike “the advocates of the contrary” — the eugenicists — who did not recognize limitations to their (un)scientific data (1924, 82; 1930, p. 104). Further, that he retained the “dozen healthy infants” challenge in the 1930 revised edition from which he “deleted 25 to 30- pages of outgrown material” (Watson, 1930, p. vii) is further evidence that this remark was far from careless, especially since he also removed “all the tricks of trade by means of which a lecturer tries to keep his audience awake...(and) tried to take out most of the overstatements and exaggerations common to all lectures” (1930, p. vii).⁴ Watson clearly and deliberately decided to retain the “dozen healthy infants” statement throughout the 1920s as the eugenics movement in the U.S. flourished.

The eugenics movement in Watson’s time

The eugenics movement’s advocacy of the use of science (i.e., genetics) to improve the human gene stock through selective breeding strategies that strengthened superior strains and eliminated inferior genes became increasingly visible and popular in the U.S., Europe, Japan, and Latin America in the first third of the 20th century. Its impact spiked after World War I ended: “public attention to eugenics was renewed after the Armistice with a force that made [it] as much a part of the secular pieties of the nineteen-twenties as the Einstein craze” (Kevles, 1985, p. 59). Universities, including elite ones like Harvard, Columbia, and Berkeley, typically offered courses fully or partly devoted to eugenics. British and American eugenics societies, led by a “priesthood” of scientists, organized lectures, held meetings, published journals and popular books, sponsored eugenics exhibits and eugenic family contests at numerous state fairs, and even conducted a eugenics sermon contest (Kevles, 1985).

However, the eugenics movement in the United States was in reality a political movement masquerading as science. The eugenicists used the allegedly scientific data derived from the emerging mental testing movement to conclude that certain races and ethnicities were disproportionately “feebleminded” (i.e., mentally deficient or so-

⁴ While a deliberate statement can nevertheless function as a careless statement, one of the editors of this special issue (KAL) observed: “In retrospect the remark seems careless primarily because it is taken out of context, context being the second sentence. Watson had no way of knowing it would be used thus and so to call it a careless remark seems a little unfair.”

cially deviant), that feeble-mindedness was a cause of criminal behavior and pauperism, and that feeble-mindedness was inherited. The “menace of the feeble-minded” particularly alarmed eugenicists, who believed in “wiping out social defect by preventing the procreation of the eugenically undesirable” (Kevles, 1985, p. 92). When intelligence test data indicated that large numbers of recent immigrants to the U.S. were “feeble-minded” or intellectually inferior, the eugenics movement had cause to vigorously participate in the U.S. immigration debate that escalated in the 1920s, campaigning that the deficits reflected hereditary differences and therefore represented a great danger to the long-term stability of the country’s genetic stock (Kevles, 1985).

Leon Kamin’s 1974 book *The Science and Politics of I.Q.* brilliantly documents how the eugenicists of the first decades of the 20th century — including prominent psychologists who were leaders of the American Psychological Association and the new science of mental testing — sought to preserve alleged racial purity and genetic superiority in the face of what to them were the hordes of genetically defective immigrants from Southern and Eastern Europe streaming into the United States since the 1880s. Unlike the earlier wave of Western and Northern European immigration in the 1840s, which brought supposedly genetically superior ethnicities to the U.S., the eugenicists believed that the more recently arrived Southern and Eastern Europeans would weaken the native genetic stock by producing offspring of lower capacities, including, most importantly, intelligence. Lower intelligence meant that many of these immigrants and their children would be “feeble-minded” and thereby likely to be paupers or criminals. To the eugenicists, the early 20th century immigration pattern gained additional urgency because the inferior “negro” race (as eugenicists referred to black people) was already in the country and diluting the genetic pool. In fact, the “negro” served as the eugenic benchmark for low intelligence that the new immigrants could not even match, thus further intensifying fears that the U.S. gene pool would rapidly deteriorate (Kamin, 1974).

Intelligence was measured through the new science of mental testing, which Watson in 1913 recognized as one of several applied areas of psychology that was thriving due, in his view, to its de-emphasis of introspection as a methodology. However, the promise of the humane use of intelligence tests advocated by Binet was transformed into a mechanism of authoritarian social control as high profile eugenicist psychologists like Terman, Goddard, and Yerkes generated biased data, interpreted the flawed data through an ideological lens, and then emphatically concluded under the mantle of science that the average intelligence of the newly arriving Eastern and Southern European immigrants was lower than that of the “negro” and, in fact, in the feeble-minded range (Kamin, 1974). Flaws in data and interpretation notwithstanding,⁵

⁵ For example, Brigham’s influential 1923 book *A Study of American Intelligence* concluded that the intelligence tests were measuring native intelligence, and moreover, that the lower intelligence scores of recent immigrants compared to ones who were in the U.S. for many years meant that poorer quality immigrants were coming to the U.S. since 1902 rather than the logical alternative that the cultural acclimation and language facility that contribute to higher intelligence test scores typically come only with increasing years in a new country.

when the conclusion that well over 80% of these newly arrived immigrants at Ellis Island were “feeble-minded” was combined with the results from widespread intelligence testing of World War I draftees that demonstrated black people scored lower than white people, the leading eugenicists voiced increasing alarm for the country’s genetic stock (Kamin, 1974).

In scientific journals and Congressional hearings, the language was violent — and also specific. Kamin provides many examples of blatant racism as the eugenic-fueled anti-immigration fervor increased between Watson’s 1913 manifesto and his 1924 anti-eugenic battle cry. For example, Terman, who adapted the Binet intelligence test for American children in 1916, asserted in the test manual that “high grade defectives” will be identified by intelligence tests and then monitored by society — which “will ultimately result in curtailing the reproduction of feeble-mindedness and in the elimination of an enormous amount of crime, pauperism, and industrial inefficiency” (quoted in Kamin, 1974, p. 6). In a 1917 journal article, Terman warned that “(feeble-mindedness) is responsible...for the majority of cases of chronic and semi-chronic pauperism...the feeble-minded continue to multiply...we must prevent, as far as possible, the propagation of mental defectives...curtailing the increasing spawn of degeneracy” (quoted in Kamin, 1974, p. 7).

Congressional testimony included written testimony from a Dr. Sweeney to the House Committee on Immigration and Naturalization on January 24, 1923: “We have been overrun with a horde of the unfit...The Slavic and Latin countries show a marked contrast in intelligence with the western and northern European group...One cannot recognize the high-grade imbecile at sight...They think with the spinal cord rather than with the brain....the necessity of providing for the future does not stimulate them to continuous labor...Being constitutionally inferior they are necessarily socially inadequate...Education can be received only by those who have the intelligence to receive it. It does not create intelligence. That is what one is born with...We shall degenerate to the level of the Slav and Latin races...pauperism, crime, sex offenses, and dependency...guided by a mind scarcely superior to the ox” (quoted in Kamin, 1974, p. 23-24).

The same House Committee received a report on January 10, 1924 on “selective immigration” from its Eugenics Committee; the report concluded that “with the shift in tide of immigration...to southern and eastern Europe, there has gone a decrease in intelligence test scores” (Kamin, 1974, p. 24-25). Further, the Allied Patriotic Societies of New York placed a letter in the same House Committee record on January 5, 1924, warning “that as many as 2,000,000 persons have been admitted...whose intelligence was nearer the intelligence of the average negro...than to the average intelligence of the American white” (Kamin, 1974, p. 25). And eugenic scientist Laughlin, who “became known in Washington as an indispensable authority on the ‘biological’ side of the immigration issue” (Kevles, 1985, p. 103), testified before the House Committee on March 8, 1924 that characteristics “prized” by “American stock,” such as “truth-loving, inventiveness, industry, common sense, artistic sense, love of beauty, respon-

sibility, social instinct, and the natural sense of a square deal...are of a biological order" (Kamin, 1974, p. 25) and presumably absent in certain European stocks.

The eugenic argument against the current immigration practices also was taken to the educated public (Kamin, 1974), providing an example of the movement's effort to make society more "eugenic-minded" (Kevles, 1985). A 1922 *Scientific Monthly* article by university professor Kimball Young argued that "general as well as specific abilities are transmitted by heredity...a continued deluge of this country of the weaker stocks of Europe will ultimately affect the average intelligence of the population... these stocks are constantly sending out their tentacles [*sic*] up to the higher biological strains...We have of course the comparable problem of preventing the continuance of inferior lines in the present population" (quoted in Kamin, 1974, p. 26-27).

The eugenicist-driven anti-immigration movement succeeded when Congress passed the Johnson-Lodge Immigration Act of 1924, a follow-up to the temporary 1921 law that introduced the notion of "national origin quotas" (Kamin, 1974). The 1924 Act restricted immigration from a country to 2% of the population from that country already in the U.S. in 1890. By 1890, most of the immigration from Northern and Western Europe had already occurred, resulting in substantial numbers of already assimilated immigrants and rendering the 2% quota sufficient for current immigration requests. However, the immigration from Eastern and Southern Europe accelerated considerably after 1890, and with few immigrants already in the U.S. by 1890, the quota was very low — 2% of almost nothing — at a time when immigration requests from those countries were escalating rapidly because of events unfolding in Europe. Johnson-Lodge had its intended impact: immigration from Southern and Eastern Europe decreased substantially, and "the law, for which the science of mental testing may claim substantial credit, resulted in the deaths of literally hundreds of thousands of victims of the Nazi biological theorists" (Kamin, 1974, p. 27).

The quotes from eugenicists assembled by Kamin demonstrate the particular language and concepts that were used to convey their message. Placed in the context of these harsh eugenic words, Watson's (1924) extreme environmentalism, including specifically the "dozen healthy infants" challenge, represented a deliberately chosen rebuttal of their premises.⁶ However, while Watson forcefully stood up to the eugenicists, he also understood that the xenophobia they exhibited was at least partly caused by the concentration and proximity of strangers fostered by escalating immigration and urbanization. In a portion of the preface found in some copies of the 1924 edition of *Psy-*

⁶ The lecture containing the "dozen healthy infant" statement may stand alone as Watson's rebuke to the eugenicists. Watson doesn't appear to have directly challenged his friend Yerkes' eugenic views. Watson and Yerkes exchanged letters for many years. Between 1907 and 1913, the early letters discussed comparative psychology while the later ones focused on Watson's 1912-13 Columbia lectures that formed the basis of the manifesto (Mills, 1999). They co-founded the *Journal of Animal Behavior* in 1910 (Buckley, 1989), discussed introspection and personal concerns in letters exchanged between 1915 to 1926, and continued to cross paths until the late twenties, with ups and downs in their relationship (Buckley, 1989; Cohen, 1979). But neither Buckley, Cohen, nor Mills report any exchange between the two related to eugenics, immigrations, or intelligence testing.

chology from the Standpoint of a Behaviorist, but which is not in other 1924 copies, and which is not in the 1919 or 1929 editions (see Bakan, 1966), Watson suggested in the most reasoned tones that behaviorism can engineer the assimilation and accommodation necessary to achieve social comfort when cities embrace immigrants:

Civilized nations are rapidly becoming city dwellers. With this increase in the concentration of homes there come changes in our habits and customs. Life becomes complex. The strain of adjusting ourselves to others increases daily... Chemistry and physics...are helpless when called upon to teach us how to dwell together wisely and happily...Our schools and colleges, constructed as they are to fit the needs of a past generation, cast us forth ill prepared to solve the problems that come from living in complex groups. We carry away from them only a scant knowledge of ourselves and even less equipment for understanding the behavior of others. If we are ever to learn to live together in the close relationships demanded by modern social and industrial life, we shall have to...enter upon a study of modern psychology. Fortunately, psychology is prepared to help us. The past ten years have seen the development of new points of view in psychology — points of view that have grown up partly to meet our ever changing social needs and partly because the very existence of these needs has made a new viewpoint possible...One of the most recent and practical of these new viewpoints in psychology is that of the behaviorists... (p. xi-xii in original; quoted in Bakan, 1966, p. 11-12).

It is probably no coincidence that only in the 1924 edition of the book — published in the same year that Congress passed the restrictive Johnson-Lodge Immigration Act — did Watson express his belief that behaviorism can promote social harmony in a world being transformed by industrialization and the movement of peoples across the globe.

Watson's social engineering ideological legacy

Watson's opposition to eugenics and advocacy of humanitarian goals were manifestations of a "non-political empiricism" very similar to that evidenced by Skinner (Rakos, 1992); they were not products of inclusive political or moral values.⁷ While the psychology establishment⁸ and Congress were fueling the eugenicist fervor, Watson was exposed to and at least somewhat active with what Mills (1999) described as "a version of scientific Progressivism, expressing itself through the mental health

⁷ In fact, Watson's politics were quite mainstream and became increasingly conservative later in life (Buckley, 1989; Cohen, 1979).

⁸ During the 1920s, the intelligentsia in the U.S. voiced clear objection to eugenic thought, but academics were limited to the occasional anthropologist (Kevles, 1985).

movement" (p. 154), which asserted scientific findings must guide the interventions designed to solve social problems. For example, Burnham (1924), a leader in the movement, not only advocated that conditioning principles be used to address practical problems (with favorable citation of Watson) but also contended that feeble-mindedness and insanity could be remediated by proper early habit training (Mills, 1999). Watson in his 1913 manifesto identified the field of psychopathology as one with great growth potential due to its shift from introspection to experimental methods, and the mental health movement with its Progressive ideology was consistent with this emphasis on science-as-guide.⁹ Watson's involvement with the Progressive mental hygiene movement seems limited to speaking in 1917 at a symposium on "Modern Science and Education" organized by a member of the movement with whom he was acquainted (Buckley, 1989; Mills, 1999). Nevertheless, his work provided important empirical support for the social reformers of the day, who believed that science could solve problems in both education and mental health. And it was natural for Watson to extend behavioral theory to psychopathology in an effort to apply empirical principles to enhance the social good: in 1916, he described a conditioned reflex conceptualization of psychopathology in "Behavior and the Concept of Mental Disease," which Rilling (2000) called "a founding document" of behavior modification. The influence of the mental hygiene movement can be seen as well in Watson's 1919 book, which concludes with an extensive application of behaviorism to psychopathology in the final chapter called "Personality and its Disturbance."

Mills (1999) argued that the mental hygienists' programs were not based in empiricism as they claimed, but rather, "had a frankly ideological rationale" (p. 154) that "peak[ed] in the mid-20s"¹⁰ (p. 152) and affected Watson strongly: "A version of the Progressive ideology controlled Watson's thinking and projected itself into Hull's and Skinner's thought" (p. 152-3). In actuality, the Progressive ideology — which Watson evidenced before he left academia in 1920 — controlled not only his thinking but also his writing: Watson's extension of habit acquisition to psychopathology was followed by vigorous promotion of the application of behaviorism to increasing number of important human behaviors (Kazdin, 1978). Further, his "postacademic polemics about the learning capacity of infants and aged people...corresponded well with the Progressive ideals of innate equality and potential limited only by the sophistication of behavioral technology" (Todd, 1994, p. 163). For Watson, the Progressive ideology was consistent with scientifically-based social intervention rather than with a liberal political or moral orientation. Thus, he saw that the labor leader and the capitalist both want

⁹ One of the reviewers of this paper (KAL) pointed out that "Clifford Beers's *A Mind That Found Itself* (1908) is generally considered the starting point of the mental hygiene movement in the US. This date fits nicely with Watson's *Manifesto*."

¹⁰ The mental hygienist movement and eugenic movement, with diametrically opposed social philosophies and prescriptions, peaked at the same point in time as they confronted each other in the cultural war over nature versus nurture.

either to become king or stay king. No one can object to this kind of strife. It is part of life. There always has been and there always (until the behaviorists bring up all the children!) will be this kind of struggle for dominance. Every man ought to be a king and every woman a queen. They must learn, however, that their domains are restricted. The objectionable people in the world are those who want to be kings and queens but who will allow no one else to be regal...many of our orthodoxies — codes of conduct, our rules of politeness — are build up for the purpose of letting him who is king and rule-maker remain king and rule-maker. (Watson, 1924, p. 239; similar in 1930, p 292)

This Watsonian progressive ideology is seen not only in Skinner's thinking but in behavioral thinking more generally: "...behaviorists adopt a version of scientism. In common with their Progressive forebears, they see science not just as technology but as technology that must have social applications...they despise any characterization of science as the pursuit of pure truth" (Mills, 1999, p. 154; see also Prilleltensky [1994] and Smith [1992]). This social change philosophy met with a favorable cultural environment in the 1960s that facilitated the ascendance of the behavior modification movement in that decade (cf. Rutherford, 2009). These nurturing conditions included a "social optimism" that embraced behavioral science solutions (Mills, 1999) and a societal questioning of power, order, and rights that adopted an environmental perspective on social change. The elimination of specific social problems was seen to require external changes engineered by government intervention, and various grassroots movements arose to prompt those changes, including ones focused on civil rights, women, peace, and at the end of the decade, the environment.

The growing political and cultural emphasis on environmental change as the solution to social problems was embodied in the United States in the 1960s in Lyndon Johnson's "Great Society." Its civil rights initiative focused on changing restrictive environmental conditions, such as voting criteria, voting costs, and national origin quotas,¹¹ and on limiting discriminatory behavior through legislation, rather than on changing bigoted people. The War on Poverty introduced a range of environmentally-based programs to facilitate skill acquisition (e.g., job training) and to promote financial support (food stamps, higher education loans and scholarships), educational support (Head Start, Upward Bound, trained teachers, bilingual services), legal aid, and health care (Medicare and Medicaid) (cf. Andrew, 1998; Milkis and Mileur, 2005).

The 1960s societal emphasis on changing environments to remediate social ills also included an intellectual rebellion against the mechanistic and historical deter-

¹¹ It was only with the passage of the Immigration and Nationality Services Act of 1965 that national origin quotas established first in the Emergency Quota Act of 1921 were eliminated (Brinkley, 1991). Even so, the anti-immigration eugenic argument is still put forth today, though it gets framed in more politically acceptable language that substitutes "high skill" and "low skill" for "genetically determined and racially-based high IQ" and "genetically determined and racially-based low IQ," respectively, as a key factor in deciding which immigrants should be permitted entry into the U.S. (Matthews, 2013)

minism of psychoanalysis in favor of a focus on current environmental conditions and their relations to behaviors of interest, whether conceptualized through behaviorism or humanism (Krasner, 1978; Mills, 1999). Thus support for environmental solutions for social problems, such as behavior modification programs, came from within the academy as well as from outside cultural factors.

Watson's ideas and "crusading" style likely contributed to the ideologically energized behavior modification initiatives of the 1960s, starting in 1913 with an explicit call to use scientific psychology to address behavioral and social problems, and moving in 1924 to arguing for the widespread application of behavioral theory to all sorts of human concerns:

With the publication of *Behaviorism* (1924) and *The Psychological Care of the Infant and Child* (1928), as well as countless newspaper and magazine articles, Watson spread the behaviorist faith to a mass audience. He became a popularizer of psychology as a means of self-help...and an advocate of psychological engineering...His popularized vision of science stirred the imagination of a new generation of psychologists (including) Skinner who as a student glimpsed the "possibility of technological applications" in Watson's *Behaviorism*. (Buckley, 1989, p. 132-133, p. 160)

Watson's Progressive ideology, transmitted to and through Skinner, "pervaded the therapeutic and educational programs of the behaviorists of the 1960s" (Mills, 1999, p. 153). And on occasion, this ideology was generalized to the social and cultural movements of the time, as when Wyckoff applied his expertise in programmed instruction and teaching machines to develop a voter registration campaign in Mississippi in 1963 based in immediate positive reinforcement (Escobar & Lattal, 2011).

Mills (1999) suggested that this Progressive ideology was particularly evident in the "social engineering" role adopted by the behavior modifiers of the 1960s, who established diverse successful exemplars of behavior change programs (Kazdin, 1978). These behaviorists believed their approach could effectively address abnormal behavior and were encouraged by a society friendly to the behavioral sciences (Mills, 1999). In this context, where changing bad environments was seen to be the way to change people for the better and to eliminate social problems, behaviorists were indeed "social engineers" and behavior modification grew rapidly in the 1960s as society sought practical, effective, and efficient solutions to social and individual problems. Mental institutions, prisons, and individuals seeking self-help became popular targets for comprehensive and rigorously implemented behavioral intervention programs (Rutherford, 2009).

As the field continued to mature, it was natural, given the Progressive roots embedded in the behavioral tradition, to address increasing numbers of social problems and their possible behavioral solutions: "Many of those who believe in the efficacy of operant techniques also believe that the underlying theory can provide

us with an analysis of social forms and, above all, procedures for changing social forms and practices" (Mills, 1999, p. 168). Skinner provided the leading examples of this approach with such works as *Behaviorism* (1974), *Beyond Freedom and Dignity* (1971), *Science and Human Behavior* (1953), and of course the utopian novel *Walden Two* (1948). True to the spirit of the 1960s, Twin Oaks in 1967 became the first of several intentional communities inspired by Skinnerian idealism (Rutherford, 2009).

By the early 1970s, behavioral theory and intervention was being generalized to increasingly diverse social issues and problems, including pollution control, energy conservation, recycling, job seeking training, job performance training, self-sufficiency skill training, and racial conflict (Kazdin, 1978). In 1978, this social analytic tradition was institutionalized by the formation of Behaviorists for Social Action, a Special Interest Group (SIG) of the then Midwest Association for Behavior Analysis. Today, the group is known as Behaviorists for Social Responsibility (BFSR), a SIG of the Association for Behavior Analysis International that publishes the journal *Behavior and Social Issues*. ABAI has spawned other SIGs concerned with social action including the Cultural Design SIG that merged with BFSR several years ago, and the recently organized Behavioral Analysis for Sustainable Societies SIG. In addition, the independent Cambridge Center for Behavioral Studies was formed in the 1980s to bring behavioral findings into the forefront of public discussion of solutions to social problems.

The manifesto's social action heritage

Watson's 1913 manifesto included the foundation for the field's social action legacy: psychology as a natural science strives to predict and control behavior, and must use its knowledge of behavior control to solve human problems. Morawski (1982) pointed out that the control of individual behavior that was the focus of Watson's 1913 manifesto had been expanded by 1917 to suggest that psychology had a broader social utility: In addition to developing principles that predict how persons will adjust to life situations, "it is equally a part of the function of psychology to establish laws or *principles for the control of human* action so that it can aid organized society in its endeavors to prevent failures in such (life) adjustments" (Watson, 1917, p. 329, emphasis in original). Watson's focus on the systematic use of scientifically-derived principles to prevent maladaptive behavior emerged as he began to question the role of instinct: "Just what are the patterns of his instinctive acts, that is, does the human being, apart from training, do any complex acts instinctively as do the lower animals? If so, what is man's full equipment of instincts?" (Watson, 1917, p. 336-7). By 1924, Watson argued that behavior is a function of environmental variables, the environment is the crucial variable that makes people different, including those called good and those called bad, and that behaviorism is the best way to engineer the environmental change needed to remedy a social problem.

Skinner shared with Watson not only the Progressive ideology (Mills, 1999), but also a fundamental interest in social control (Boakes, 1999). Skinner (1959) understood Watson was crusading to win a cultural battle, and picked up the social change gauntlet, with its hope for a more reinforcing world through the application of behavioral theory and research findings (Skinner, 1948, 1953, 1971, 1974). Watson's Progressive ideology continues to guide the work of many contemporary behavior analysts as they apply theoretical analyses to, and conduct experiments on, social problems such as poverty (Mattaini & Magnabosco, 1997), war and conflict (Biglan, 1995; Mattaini, 2001) and human-induced global warming (Chance & Heward, 2010).

Despite the wide and widening range of social issues to which behavioral theory has been applied, Mills (1999) concluded that behaviorism failed to maintain its prominence due to a limited analysis of social and cultural factors. Certainly, behaviorists — like all who tried before — failed to establish a utopia. And behaviorism has not led to revolutionary reordering of the social order, which some see as another marker of failure (e.g., Prilleltensky, 1994). On the other hand, in many real world settings, behaviorists and behavioral approaches are now the norm, including school psychology (Chafouleas, Volpe, Gresham, & Cook, 2010; Dishion, 2011), business and industry (Daniels & Daniels, 1999), education (Heward et al., 2005), autism treatment (Eikeseth, 2009), and health psychology and behavioral medicine (Suls, Karina, & Kaplan, 2010).¹²

But of course many areas of human concern are still in need of behavioral influence. Watson — placed in an accurate historical context — remains a symbol of doing battle for a behavioral understanding of the world, of embracing a scientific approach to every-day phenomena even if counter-intuitive, and of advocacy for the use of experimental data to reduce or eliminate social problems (Bakan, 1960). Watson and Skinner both viewed social change through the lens of “non-political empiricism” rather than through partisan politics (cf., Buckley, 1989; Rakos, 1992) and, like the legions of behaviorists who followed, firmly believed that behaviorism can and will improve our world, for it provides both a theoretical approach and the fundamental tools through which to promote progressive social and cultural change (cf., Rakos, 1992). And while contemporary behavior analysts appreciate the complexity of and potential limits to social intervention, they nevertheless still promote behavioral solutions with a Watsonian-like “crusading spirit” and “campaigning style,” albeit in a more sophisticated manner, as a perusal of any ABAI annual convention program from the last three decades will confirm. From its outset in Watson's 1913 manifesto, social action was and remains an intrinsic and fundamental component of behaviorism.

¹² Further, Watson's desire that psychology generate data to guide practice finds expression today in the growing prominence of evidence-based practice in both clinical (Leffler, Jackson, West, McCarty, & Adkins, 2013) and school (Dishion, 2011) psychology.

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