

The discrediting of John Broadus Watson¹

El desacreditamiento de John Broadus Watson
Peter Harzem
Auburn University

Abstract

In 1958, John B. Watson, the father of behaviorism, died. He died a man disappointed at life, and never recovered from its injustices. He had been twice discredited, on two separate counts and by two different interest groups, unconnected but feeding on each other. The history books do not tell the true story of this human tragedy, and all —*all!*— that is said in Psychology textbooks about his scholarly positions is false. His dismissal from Johns Hopkins University was the culmination of a vendetta, led by a personal and powerful enemy, long antedating his love affair with Rosalie Rayner. The distortion of his ideas, persistent enough to amount to intellectual persecution, started in his lifetime and continues to the present with increasing vehemence. The full story requires longer treatment than possible in the present article; here, merely a selection of events and incidents from Watson's life and work is briefly presented, indicating how this great man has been wronged and how, consequently, our civilization has been robbed of what a dependable science of human action would have contributed to the prevention and, where that has not been possible, to the alleviation of our social ills.

Keywords: John B. Watson, behaviorism, discrediting.

¹ This is an extended version of a paper given at a symposium on *John B. Watson's Behaviorism and Contemporary Behavior Science: An Historical Evaluation* held at the University of Guadalajara, Mexico, on August 26-27, 1993. Professor Emilio Ribes-Inesta of that University and his colleagues excelled in organizing a meeting of exceptionally high quality. They are owed a debt of gratitude. Here I have used a style other than that prescribed by the APA guidelines, as they are suitable for the reporting of empirical findings but less so for papers of this kind. In any case, it is a bad thing for scholarly work to be rigidly regimented. In all quotations I have retained the punctuation, capitalization, etc. of the originals which, in some instances, are different from current practice. I have used the masculine pronoun to stand for all humans, and wrote "men and women" only when the text called for it. I do not know of any reason to distinguish men from women with regard to social rights, job value, intellectual possibility, and the like, while I also do not know of any reason to reiterate this *ad nauseam* in an article that has no connection with those topics.

Correspondence should be sent to the author at: Department of Psychology, Auburn University, Alabama 36849-5214, U.S.A.

Resumen

En 1958 murió John B. Watson, el padre del conductismo. Murió un hombre decepcionado de la vida y que nunca se recuperó de sus injusticias. Fue desacreditado dos veces, en dos ocasiones separadas y por dos grupos de interés diferentes, sin conexión pero alimentándose el uno al otro. Los libros de historia no dicen la verdadera historia de esta tragedia humana, y todo lo que se dice en los textos de psicología acerca de sus posiciones académicas es falso. Su despidió de la Universidad Johns Hopkins fue la culminación de una *vendetta*, conducida por enemigos personales y poderosos, con mucha anterioridad a su relación amorosa con Rosalie Rayner. La distorsión de sus ideas, lo suficientemente persistente para ser equivalente a una persecución intelectual, comenzó durante su vida y continúa hasta el presente. La historia completa requiere de un tratamiento mayor que el que es posible en este artículo; aquí, se presentan meramente una selección de los acontecimientos e incidentes de la vida y trabajo de Watson, indicando como este hombre ha sido comprendido erróneamente y como, por consiguiente, nuestra civilización se ha sustraído de lo que una ciencia confiable de la conducta humana hubiera contribuido a prevenir y, donde esto hubiera sido imposible, a aliviar nuestras enfermedades sociales.

Palabras clave: John B. Watson, conductismo, desacreditación

I. INTRODUCTION

On September 25, 1958, John Broadus Watson, the father of behaviorism, died. He was 80 years old. He died a lonely, disappointed man, deeply hurt by ruthless assaults on his personal life and on his life's work. The last decade of his life had passed in seclusion, with few loyal friends who troubled to see him from time to time. His faithful friend and secretary, Ruth Lieb, dealt with his correspondence, replying to letters sent to him. His life had reached its conclusion long before, so that those final years had been years of marking time, waiting.

True story of Watson's life, free of the prejudices that have relentlessly been fostered by his intellectual enemies, has not been told. These enemies

were in two different groups that were initially unconnected. One group, his relations by marriage, carried out a vendetta against Watson for personal reasons. The other was the group of intellectually affronted academics, stung by Watson's criticisms of their work, and in no small measure envious of his extraordinary successes. They kept a gleeful silence when he was being hounded by his personal enemies, and after that vendetta succeeded they ensured that no university would ever give him an opportunity to carry on with his researches.²

The first group lost interest in Watson once his career had been destroyed; the second then took over the job of discrediting Watson, tainting his work by association with the personal 'scandal' of his divorce, and misrepresenting his views. They became all the more vocal once it became clear that Watson would not reply to false accounts of his theories and his research - emotionally he was no longer able to face all those misrepresentations - and even more so after his death. Big falsehoods have a way of feeding on small falsehoods, and small falsehoods have a way of becoming more believable by repetition. That is what happened to what has been said about Watson, and now we have reached a state when almost *all* that is said in a Psychology textbook about Watson's work and behaviorism is untrue.

John B. Watson died a heart-broken man solely because of his devotion to scholarship; there was no other reason, because he had admirably overcome the material blows of life. Left penniless,³ as he put it, after his severance from Johns Hopkins University he built a new fortune, but he never recovered from the intellectual injustice dealt to him by mean-spirited men. What they rumored about his private life was distorted, and what they succeeded in doing to his career was evil. And even worse, with Watson eliminated from the picture, someone took his ideas and reiterated them under different names as if they were their own.

The distortions of Watson's life and work have, by now, been so well established through repetition that it is impossible to correct their effects merely by a short article such as this. Each of us, though, is honor-bound to bring out truth when we find it, if the careers of scholarship we have chosen are to have the sort of dignity that such careers must have. On the other hand, it is natural for the reader to view with a healthy measure of skepticism the account

² After he successfully built a second career Watson wrote to Yerkes that he would give up all the money, i.e. accept a much lower income, for a chance to complete his researches on children. Lesser men, now long forgotten, banded together and lost to us what he might yet have contributed. Not a pretty story, and not an unusual story.

that will follow, because it is so much at odds with the established dogma of the literature of Psychology and beyond. This article is, then, rather more an invitation to those who care about such things, to seek the truth for themselves in the works of Watson himself and, if interested in his personal life, in the documents that are available in the sources listed here and elsewhere. The latter is a more demanding task but, until a fair and exhaustive biography of Watson becomes available, it will reward the searcher with astonishment at the enormous discrepancy he will find between what was in fact the case and what has been reported.

Watson suffered two different sorts of assault upon his life: one on his private life and career, and one on the substance of his work and ideas. In parallel with them, this article is in two parts. In Part 1 I present selected segments from Watson's life to *illustrate* the hurts that have been dealt to him. This is not by any means a complete account but merely a sampling. In Part 2, I mainly let Watson speak for himself with quotations on a number of fundamental issues. I have made an effort to select those issues regarding which the worst distortions of his views are now commonplace in textbooks and learned articles alike.³

This, too, is not a complete survey but a collection of examples. It shows what happens when an essential characteristic of good scholarship, that is to say, the practice of going to original sources, fails. Reporting, discussing, and criticizing original sources — books, articles, etc. — without consulting them, and instead depending on what others have written about them, is now common in Psychology and related disciplines, and it is doing serious damage to the integrity of these disciplines. Watson's work is only one example of this shameful practice, although it is one of its worst kind in persistence and in extent.

3 I wish to deal with a claim which, I anticipate, those who do not like what they read here will be drawn to make as criticism. When faced with quotations, the easiest objection is to cry 'out of context.' That claim stands for more than what it says because, of course, every quotation is, *by its nature*, out of context. The criticism is asserting, if it is to have any force at all, that the quotation has been lifted out of its context in such a way as to change its original meaning. In every quotation from Watson — and others — I have taken special care not to distort the original meaning by such a disreputable device. In some cases I did this by quoting longer passages than might otherwise have been necessary. Since I give full reference for each quotation, the onus is on the would-be critic to show the context that he claims would give a different meaning to the quotation than the meaning I give to it.

II. SEGMENTS FROM WATSON'S LIFE⁴

(1) Divorce, and Exile from Psychology

Watson married his first wife, Mary Ickes, on December 26, 1903, when he was an instructor at the University of Chicago. It is said that their affair started when Mary wrote a love poem to him, and he had just been rejected by another woman he loved. Mary was only 18, her family was not pleased, and they were married secretly. Her brother Harold Ickes hated Watson from then on and actively sought to harm his career. Harold was a lawyer and politician who became Secretary of the Interior in Franklin Roosevelt's New Deal Cabinet. There is evidence that he used his considerable influence to hurt Watson. In the end he may have achieved his purpose for it appears that he had a hand in Watson's dismissal/resignation from Johns Hopkins University in 1920. Long before his sister thought of divorce, when Watson was at the University of Chicago, Harold had been to see the president of that university, seeking to have Watson fired. As we shall see, the treatment of Watson by Johns Hopkins was far in excess of the university's comparable actions involving other professors, and that difference may well be attributed to the influence of Harold.

Mary's other brother, John Ickes, was a "ne'er-do-well," an untrustworthy individual. Mary, when she discovered Watson's love letters to another woman, Rosalie Rayner, took them to John and asked his advice as to what she should do. (She did not show them to the more reliable Harold, because she knew what his reaction would be.) John, however, was more interested in finding a way to profit from them. He photographed them, kept the photographs, and it appears that he planned to blackmail Watson. That opportunity was lost because too

4 There are two biographies of Watson: David Cohen, *J.B. Watson: The Founder of Behaviorism* (London: Routledge and Kegan Paul, 1979) and Kerry W. Buckley, *Mechanical Man: John Broadus Watson and the Beginnings of Behaviorism* (New York: The Guilford Press, 1989). Cohen's book, despite the author's apparent anti-behaviorist bias that seeps through, and despite its irritating errors (Woodsworth throughout for Woodworth, etc.) is the better informed. Neither book is a balanced, independent account, both reiterating much of the existing prejudices about not only behaviorism but also about their very subject. Both contradict themselves by portraying Watson as an unfeeling, tough-minded person even though the story they tell belies that claim. The authors, it seems, were determined to show Watson as a cold character, underlined by the evidence they were reporting. The title of Buckley's book speaks volumes in that regard, chosen, one would suspect, with a view to pandering to the expectations of its audience, and to its sale prospects. In fact that book adds nothing to Cohen's work, and it is hard to see why the author took the trouble to rehash the same old stuff. A detailed, fair, and open-minded biography of Watson, free of preconceived notions and open to be led by the evidence, remains to be written.

many people became involved in the so called scandal before he could extract a price for silence. When the divorce attracted the attention of newspapers, the parties involved in the proceedings did the "decent thing" by the standards of the time, and kept Rosalie's name out of publicity. John Ickes, however, having failed to profit from the photographs (to which, of course, he had no legal or moral right) gave Rosalie's name to a newspaper reporter. There is no record of what took place between him and the reporter, although it would seem likely that money changed hands.

Only three people emerge with some dignity from the sordid story of Watson's love affair and the ensuing divorce. Ironically, they are the principal characters: Watson himself, his wife Mary, and his future wife Rosalie Rayner.

Watson, though the guilty person, comes out well because time has shown that his love for Rosalie was true, deep and lasting. They were married just a few days after the divorce was finalized, and they remained happy in their marriage until Rosalie's death. In the summer of 1936 Rosalie became gravely ill with dysentery which at that time was a deadly disease. She was admitted to hospital, and Watson kept vigil by her bedside every day for weeks. She died on June 19, 1936. Watson was devastated. Jimmy, their youngest son, said that was the only time he saw his father cry.

Mary comes out well because she was a kindly, devoted wife. She loved her husband, their two children, and in keeping with the mores of her time she tolerated much to keep her family intact. She did not want to damage her husband, she did not seek revenge, and she would have preferred to forgive him had he been willing to give up Rosalie. But he could not. Even then, she only wanted a quiet divorce, and said so in later years. The ensuing "scandal" was mainly the work of her two brothers, one ruthless, and the other, unscrupulous.

Rosalie comes out well because she truly loved Watson, and defied all pressures to forsake him. She was a 'liberated' young woman, a graduate of Vassar College. Her wealthy and socially prominent family wanted to send her to Europe for a year to forget Watson. When she refused, her father threatened to cut her off but to no avail. Watson's divorce decree was finalized on December 24, 1920. They spent Christmas together, and they were married very soon after, on January 3, 1921, in a small and private ceremony.

It would be most fitting to add here that they lived happily ever after. In a sense they did; but the hurt of what was done to Watson's career continued to the end to cast a shadow over their lives. He was never again quite happy, and she, too, who loved him, could not be.

Almost every textbook says that Watson was dismissed from his professorship at Johns Hopkins, or forced to resign, because of the divorce scandal. This is not true. The first newspaper story came out on November 25, the day after the court hearing. Long before that Watson had agreed to a divorce settlement, had resigned his position, and he was already in Louisiana investigating the boot market as a new employee of the advertising company of J. Walter Thompson. The newspapers pursued the story because the mystery of the "other woman" to whom they referred as "R," and the affair of the famous psychologist titillated public curiosity. The dates of resignation and of the breaking of the story in newspapers clearly show that *Johns Hopkins did not dismiss Watson because of adverse publicity*. Evidence points to inordinate political pressure. There is, moreover, another story that persuasively bears on this issue.

(II) The treatment of James M. Baldwin

When Watson took his appointment at Johns Hopkins, the head of the department of Philosophy and Psychology was James M. Baldwin. Baldwin was a distinguished scholar, greatly influential in the world of Psychology. He had established, together with James McKeen Cattell, the *Psychological Review Company*, which owned and published *Psychological Review*, *Psychological Bulletin*, and *Psychological Monographs*. Baldwin was their editor.

About a year before the Watson divorce, Baldwin had been the subject of a scandal. During a police raid of a brothel he was arrested amongst the customers, and there is the suggestion that he had been found with a juvenile. The matter was hush-hushed by the university. Although Baldwin resigned he did so to continue his career in psychology, and without having to face the desertion of his psychologist friends. They continued their professional and personal contacts with him. Before leaving Johns Hopkins he passed the editorship of the journals to Watson. It will be of particular interest to the Mexican readers of this journal that thereafter Baldwin became a consultant on administrative matters connected with psychology and education to the Universidad Nacional Autónoma de México, and to the Ministry of Education in Paris, France.

(iii) A heart-warming incident

In this sad story of fickle friends and devious enemies, there are occasional incidents that warm the heart, and remind one that there are decent human beings, too. One of these incidents involved E. B. Titchener, the grand psychologist of introspective investigation at Cornell University. Since Watson was the outspoken critic of the method of introspection the two were arch opponents, although they maintained a cordial correspondence discussing the issues on which they so vehemently disagreed. After Watson had to leave Johns Hopkins Titchener wrote to him, saying that he would be happy to write letters of reference, if Watson needed them in his search for another position.

This puts Goodnow, the President of Johns Hopkins, in a particularly sorry light. Some time after his departure from the University, Watson wrote asking if Goodnow would help him to find another position by writing a letter that gave the reasons why he, Watson, had left Johns Hopkins. Watson wished that Goodnow would simply tell the truth, namely that his departure from Johns Hopkins had nothing to do with the quality of Watson's work. "I do not wish anything hidden" Watson said, expressing the hope that he may yet be able to return to his researches at a university. Goodnow's response was cold; "the reasons for your resignation are best known to yourself" he wrote, refusing even that minor act of decency. When contrasted with the treatment meted out to Baldwin, this is one more evidence that those in power were determined to destroy Watson's academic career.

(IV) The incident of the American Psychological Association

The American Psychological Association remained silent while Watson, who had been its president only a few years earlier, was being hounded out of psychology. That silence continued until the fall of 1957, one year before Watson's death, when the Association decided to honor him by award him a gold medal.⁵ The citation read:

To John B. Watson whose work has been one of the vital determinants of the

⁵ The American Psychological Association appears to have made a practice of the too little, too late. Another great behaviorist, B. F. Skinner, was treated in the same way, this time being presented with a gold medal just one day before his death. Skinner was 83, and he had never been elected president of that Association.

form and substance of modern psychology. He initiated a revolution in psychological thought and his writings have been the point of departure for continuing lines of fruitful research.

Watson agreed to attend the meeting of the APA where he would be presented this award. His sons Billy and Jimmy, his good friend Ruth Lieb, and his student Karl Lashley went to New York with him, where the APA meeting was to take place. They stayed at the same hotel, and planned to go together. On the day of the meeting Watson found that he could not go. He was both sad and elated. The thought of facing the large group of people whom he had regarded as friends and colleagues, and who had shunned him for all those years, aroused mixed emotions. He was pleased at this particular recognition at long last, and he was afraid he would cry in public.⁶ At the last minute he decided he could not go. So, he insisted that his son Billy go in his place, and Billy did. It had been 37 years since Watson had attended a meeting of the APA.

It seems no one had thought of inviting him in all that time, even though at those meetings the majority of papers presented followed the lines of research that had been started by Watson. That fact often went unacknowledged, and the man himself, ignored.

History of ideas is full of great thinkers who, because of their ideas, have been reviled, ignored, misrepresented, persecuted, and sometimes imprisoned and executed, through the efforts of their contemporaries. In that regard, Watson's is not a unique story. But that is little consolation. It is an injustice that needs to be corrected. Perhaps even more importantly, the discrediting of Watson has led to a mistaken turn in the course of Psychology, with great loss of what, otherwise, our civilizations might have gained from Psychology.

To see what, in fact, Watson thought about the major issues of psychology, we now turn to his writings on these subject.

⁶ In the prevailing culture of the times, men did not do that.

III. WATSON'S BEHAVIORISM AND HIS VIEWS ON ISSUES OF PSYCHOLOGY:

(I) A failure of scholarship

Not long ago, in the course of a conversation, a colleague who is otherwise a reasonable, well-informed scholar commented on the period in the history of psychology when the majority of psychologists were behaviorists. "It is hard to imagine," my friend said, "how *anyone* could be a behaviorist." Comments of that sort are, nowadays, commonplace, not only in conversation but also, with indelible frequency, in print. (See, for example, the quotation Miles gives in this issue.)

Two points about such commentary deserve attention. First, it is *entirely justified*. It is indeed astonishing that educated, reasonable people, including some of the most distinguished scholars of Psychology, have declared their position to be behaviorist. There must surely be some explanation for this. Given the picture of behaviorism that has now become established amongst its detractors—the majority of contemporary psychologists—one would indeed have to be and have had to be either extraordinarily obturate, or remarkably obtuse to be a behaviorist.

There is, however, another possibility that should occur to any self-respecting scholar. Faced with this simple observation, one would be expected to notice the puzzle—why have they? On the one hand there is the evidence that many behaviorists were not mere simpletons, and on the other hand, the fact that what one "knows" about behaviorism is unbelievable, except by simpletons. One or the other, or both, of these incompatible observations must therefore be in need of revision: either the distinguished figures of psychology who were behaviorists were not 'really' distinguished—they were merely foolish; or, the person who is surprised that they were behaviorists has a mistaken understanding of behaviorism. And such a consideration might be expected to lead the scholar to question whether the error lies in what he has learned *about* behaviorism—almost always through secondary sources. Thus, it would not be unreasonable to expect him to go to original sources. Not to do so is an infringement of one of the fundamental principles of scholarship: A scholar must have read the works he cites, and the works on which he comments. No one, not even the most distinguished of academics, may be expected to have read all there is in his subject. But he is expected to have read those about

which he expresses opinions. It is disreputable to break this simple, and eminently sound rule. However, with regard to behaviorism, it has indeed been broken, blatantly and over and over again, by psychologists of every persuasion, as well as the vocal critics of behaviorism outside of psychology. For evidence for this strong indictment, we turn now to Watson's own writings.

(II) The works of J.B. Watson

Watson first began to announce the principles of his new approach to psychology, namely behaviorism, in a series of lectures he delivered at Columbia University in 1912.⁷ The major work that followed this was *Psychology from the standpoint of a behaviorist*, published in 1919.⁸ This was, Watson wrote in his preface, an "elementary textbook," for the then growing numbers of students encouraged by the prospect of a new science of psychology and *therefore* attracted to it. The preface is one that must be read by anyone who would judge Watson's views. The following brief segment gives the basic idea.

I have put down only those things that any properly trained individual can observe—it does not take a psychologist to study human activity, but it does take a trained scientist... The key which will unlock the door of any other scientific structure will unlock the door of psychology. The differences among the various sciences now are only those necessitated by the division of labor. Until psychology recognizes this and discards everything which cannot be stated in the universal terms of science, she does not deserve her place in the sun.⁹

The list of contents of this book should, by itself, be sufficient to show how grossly misleading his detractors have been in claiming that Watson thought

⁷ This is the work that came to be known as 'the behaviorist manifesto,' after its publication in 1913. The symposium organized by Professor Emilio Ribes-Iniesta was occasioned by the 80th anniversary of that event.

⁸ Four of the years between 1912 and 1919 passed with Watson serving in the U.S. Army, during the First World War. He had volunteered to join the army at the declaration of the war, and his contributions to the allied war effort would make a fascinating study. That, too, has been assigned to oblivion by his detractors, in their zeal to select the negative about Watson.

⁹ Watson repeated this in other places. Above all it was this urging to discard what could not be scientifically stated that fuelled the animosity of his critics—those who saw that their own work qualified for exclusion, under these terms. In its truth this comment is as fresh now as it was at the time.

reflexes would explain all, that he had no interest in the broad topics of psychology such as personality, mental illness, emotions, and the like, and that behaviorism entailed a "black box" psychology, that is, a denial of interest in what structures and systems in the organism control action. The first two chapters, 11% of the total number of pages, are given to considering "the problems and scope of psychology," and "psychological methods." The next three chapters, 3, 4, and 5, (35% of the text) mainly describe human physiology: the receptors, neurophysiological basis of action, and the organs of response, i.e. muscles and glands. For this book Watson had commissioned drawings from the art department of the Medical School of Johns Hopkins, and enlisted the advice of Max Broedel, the Professor of Physiology.

So much for the empty organism. The persistent critic may say, however, that emptiness refers not to the ignoring of physiology, but to the rejection of psychological properties (sic) of humans. The remaining 6 chapters of the book, 54% of the total, stand as evidence contradicting that assertion. They deal with "emotions," "instinct," "bodily and psychological habits," "language," and "personality and its disturbance." There is also a chapter entitled "the organism at work," expressing the abiding interest of Watson in the possibilities of putting psychology to the service of mankind.¹⁰

(III) Watson on major issues of psychology

What follows are selections from the scholarly works by Watson on the major and abiding issues of psychology. Since every "selection" must, by nature, be an extraction from its broader context there is always the possibility that as a result the meaning may be changed—inadvertently, and sometimes even deliberately. In fact the latter is, as we shall see, what Watson's opponents have done to his writings. In selecting the following passages, I have made every effort to avoid that pitfall. (See also Note 3.)

What is psychology?

Watson answers this question clearly in the opening paragraph of his textbook:

¹⁰ Throughout his career Watson held the view that social improvement would come from better psychological knowledge. His own researches invariably addressed such possibilities, and they were always conducted with practical possibilities in mind.

Psychology is that division of natural science which takes human activity and conduct as its subject matter. It attempts to formulate through *systematic observation* and experimentation the laws and principles which *underlie* man's reactions. Everyone agrees that man's acts are determined by something, and that, *whether he acts orderly or not*, there are sufficient grounds for his acting as he does *act, if only these grounds can be discovered*. In order to formulate such laws we *must study man in action*—his adjustments to the *daily situations of life*,¹¹ and to the unusual situations which may confront him. When sufficiently worked out, the principles we obtain from such a study permit of two generalizations:¹² (My italics)

In the two paragraphs that immediately follow, Watson explains what are these generalizations. Their titles are sufficient to show his main view:

- (1) To predict human activity with reasonable certainty (2) Formulation of laws and principles whereby man's actions can be controlled by organized society.¹³ (His italics)

On "controlling" human conduct by common-sense and science:

... a glance at the mythology, folk-lore, or history of any given race will show that the practical psychology of control began as soon as there were two individuals on earth living near enough together for the behavior of one to influence the behavior of the other. The serpent controlled Eve's behavior by offering her the delectable apple, Eve learned her lesson quickly, and tempted Adam in the same way. Atalanta, the swiftest of runners, was beaten, not through the superior agility of Hippomenes, but by the fact that she could not resist the temptation to stop and pick up the golden apples thrown by her suitor. The taboo system, the initiation ceremonies, and the machinations of the medicine men all serve to

¹¹ Note the word *human* here. For Watson animal research in psychology was for the purpose of understanding human conduct—when, for example, for ethical and other reasons experiment on humans would not be possible, much the same as it is the case in medical research. Note also the terms *action* and *conduct*, indicating the breadth of interest far beyond the "muscle twitches" that critics have falsely insisted to be the subject matter of behaviorism. Equally significant are his views that *systematic observation* is as important a method for the science of psychology as experimentation, and that observation must be made of human conduct in *ordinary life situations*. In this light, how absurdly false is the charge that behaviorist research is—by its nature—artificial.

¹² Watson, *Psychology from the Standpoint of a Behaviorist*, p. 1. (Philadelphia: Lippincott, 1919).

¹³ *Ibid.*, pp. 1-2. The phrase "prediction and control" is familiar to contemporary behaviorists who mistakenly believe it to be a formulation by B.F. Skinner. Skinner himself did not, of course, make such a claim.

illustrate progress towards the control of group and individual behavior... The society has developed by hit-and-miss methods a *system of standards of action, but it does not know just what situations will produce the needed results*. The situations are set up in the social field by trial and error; they are modified, changed, etc. until the desired reactions take place, or until they are despaired of... This brief summary of the everyday uses of psychology should convince us of two things: first, that common-sense, while a reasonable method so far as it goes, does not go far enough, and never can; and secondly, that in order to make progress, the phenomena of human behavior must be made an object of scientific study.¹⁴

Some questions that a science of psychology must ask:

...we must necessarily study the simple and complex things which call out action in man; how early in life can he react to the various simple and complex sense stimuli; at what age he usually puts on the various instincts, and what the situations are which call them out. Just what is the pattern 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? When does emotional activity manifest itself? and what are the situations which call it out? and what special acts can be observed in emotional behavior? How soon can we observe the beginnings of habit in infants? What special methods can we develop for rapidly and securely implanting and retaining the body and speech habits which society demands? Do we find special and individual equipments in infants, and do these develop, and, later, form the basis for their entering one kind of vocation or another, or developing into one or another type of personality? Are there such factors as habit and instinct conflicts, distortion of habits and emotions? How do they manifest themselves? and is it possible to develop methods for shaping the environment of the individual so that such conflicts will not arise? What in general are the factors which affect the functioning of habits once they are acquired?¹⁵

On laboratory research:

Dr. Adolf Meyer often speaks of his psychopathic patients as experiments of nature. There are many problems of this character in psychology that yield only

¹⁴ *Ibid.*, pp. 4-8. The view expressed by Watson here was later repeated by Skinner.

¹⁵ *Ibid.*, p. 9. As I typed this quotation, I wondered whether the many who have claimed Watson was an extreme environmentalist, and that he denied instincts, heredity, special abilities, etc., would blush upon reading this. And I was saddened by the thought I could not avoid that none would, even if, in the unlikely event, they read this paper.

a little at the hands of a laboratory man. Much of the work now being done in the field of vocational psychology and in educational training is of this type. In such broad psychological problems the environment is not under the immediate control of the observer. In such cases we do the best we can, calling in *all* the observational, experimental, and statistical aids we can summon.¹⁶ (My italics)

On language:

The notion has somehow gained ground that objective psychology does not deal with speech reactions. This, of course, is a mistake. It would be foolish and one-sided to an absurd degree to neglect man's vocal behavior. Often the sole observable reaction in man is speech. In other word, his *adjustments to situations are made more frequently by speech than through action*....¹⁷ (My italics)

On the charge of reductionism:

...a good many psychologists have misunderstood the behaviorist position. They insist that he is only observing the individual movements of the muscles and glands; that he is interested in the muscles and glands in exactly the same way as the physiologist is interested in them. *The behaviorist is interested in integrations and total activities of the individual*... Surely objective psychology¹⁸ can study brick-laying, house-building, playing games, marriage or emotional activity without being accused of reducing everything to muscle twitch or the secretion of a gland... On the psychological side, we can describe a man's behavior in selecting and marrying a wife. We can show... how the increased responsibility stabilized certain emotional mal-adjustments, how the added financial burden led him to work longer hours... It would not help us very much in the present state of science to be able to trace the molecular changes in cell constitution —they certainly exist, but are aside from our problem.¹⁹ (His italics)

¹⁶ *Ibid.*, p. 28. In other words discard nothing that can effectively be used in a scientific study, especially in the study of as complex a subject matter as human conduct. What an openminded recommendation from a master who has been maligned as narrow-minded!

¹⁷ *Ibid.*, pp. 38-39. Note that the terms "reaction," "speech reaction," "vocal action," and "speech action" are used as equivalents here. Confusions that may arise from attributing meaning to terms regardless of their context is briefly discussed later in the text.

¹⁸ Note the distinction Watson makes by the use of the term "objective psychology." He advocates a science of objective psychology, and proposes behaviorism as a philosophy and method for that science. This is an important distinction which has escaped his critics or, worse, has knowingly been ignored by them.

¹⁹ *Ibid.*, pp. 40-41.

On heredity and personality

Individuality seems in some way to depend upon man's original tendencies, not upon the presence of the *completed pattern type of instincts*,²⁰ since these do not exist in any large number, but apparently upon factors which, when taken singly, are most difficult to detect, but which when taken together are most important. There is not much experimental evidence for this conclusion, but there is a great deal of common-sense data. We have in mind such differentiation as follows: Two men with the same and equal training, and approximately equal in ability in any skilled field, each capable of turning out fine work, will show individuality in workmanship, design, and methods of approaching their problems. Two equally skilled pitchers or catchers in baseball show this very well. Two men working upon lathes or modeling in clay, or making drawings of the same microscopic slide illustrate it. Apparently there are different fundamental part activities which have persisted in spite of instruction. We dignify these in the artist by the terms "touch," "technic," (sic) "individuality," etc. The fact that they have persisted seems to prove their original nature.²¹ (My italics)

Some of the foregoing will have shown that Watson rejected no scientific method and held the view that psychology needed every available means of "objective" investigation available. It is not known, however, that Watson was the author of one of the only two personality questionnaires—the other by Woodworth²² that came to be commonly used at the time. G.W. Allport, the father of personality theory, whom no one would consider a behaviorist, wrote "The completest (sic) list of questions are Watson's and Woodworth's." Contemporary behaviorists who are excessively given to outlawing methods and topics that absorb the attention of non-behaviorist psychologists, and even a whole range of words of ordinary language, would do well to learn an important

²⁰ These are, of course, what ethologists later termed "fixed action patterns," apparently unaware that the behaviorist Watson, whose work they had cavalierly dismissed, had already noted these phenomena.

²¹ *Ibid.*, pp. 267-268. This, and his extensive discussion of the issue in the chapter from which the quotation is taken, should put paid to the well known quotation from Watson, "give me a dozen healthy infants...." which has been used to attribute to Watson an extreme position that he did not hold. That quotation is, in fact, a *fraud* upon the community of scholars, perpetrated by his enemies. It will be discussed in the main text.

²² G.W. Allport, *Personality and character*, Psychological Bulletin, 1921, p. 452. I am indebted to my friend and colleague M.D. Gynther for bringing this to my attention. When in conversation I told some behaviorist friends about Watson's personality questionnaire they were courteously disbelieving. The idea seems firmly to have set in that behaviorists do not do things of that kind.

²³ *Op. cit.*, p. 420.

lesson from the founder of their philosophy of science: discard nothing for mere doctrinaire reasons.

It seems fitting to close this collection of quotations from Watson's text-book with its concluding paragraph. Here, Watson summarizes his view of what determines personality:

Our personality is thus the result of what we start with and what we have lived through. It is the "reaction mass" as a whole. The largest component of the mass if we are normal consists of clean-cut and definite habit systems, instincts that have yielded to social control and emotions which have been tempered and modified by the hard knocks received in the school of reality.²⁴

(IV) An embarrassment for psychology

The misrepresentations of Watson's work are now so wide-spread that it is hard, and it may be unfair, to single out any one or a group of them. The following two examples will serve, however, for the present purpose. One is from a recent book that purports to be a "thematic history"—whatever the distinction may be of this from a plain history—of psychology. It was chosen because it is eminently reasonable to demand from it a historian's impartial accuracy, devoid of theoretical partisanship. The other is a "companion," creating the impression that it has an encyclopaedic character. When inaccurate such are damaging works because they address the particularly vulnerable reader, the nonspecialist, who quite reasonably relies on such sources for general information, and who cannot be expected to go to original sources to check accuracy. To make matters worse, the work in question, *The Oxford Companion to the Mind*, carries the implied authority of a distinguished university. It is irresponsible to present inaccurate information in such a volume, and doubly so if the inaccuracy is *deliberate*.

The so-called history says:

In 1913 Watson published his epochal paper "Psychology as the behaviorist views it." Essentially it says that behavior is everything, behavior is all there is. There is no mind... We do not have to worry about feelings and emotions; such things are nothing more than stimuli that arise from within the body. So, Watson's

²⁴ R.C. Bolles, *The History of Psychology: A Thematic History*, 1993, pp. 307-308.

behaviorism would minimize everything motivational. Emotions, motives, instinct, and pleasure and pain were all thrown out. There would be no more fire, just cold, hard Ss and Rs.²⁵

The *Oxford Companion to the Mind* says:

The central tenet of behaviorism is that thoughts, feelings, and intentions, mental processes all, do not determine what we do. Our behavior is the product of our conditioning. We are biological machines and do not consciously act; rather we react to stimuli.²⁶

(V) "Give me a dozen healthy infants..."

This one-sentence quotation from Watson has become famous by repetition, and continues to appear in a multitude of publications, by a multitude of authors. It is, in fact, a fraudulent quotation. The original meaning has been distorted by the disreputable device of omitting a significant part. Because it is such a well established part of the anti-behaviorist dogma, and because it is an interesting specimen as one of the more successful frauds of scholarly discourse it deserves a section to itself. What Watson wrote is as follows.

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 beggarman 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.²⁷

Taking this statement as a straightforward assertion is as absurd as taking, say, Archimedes' statement, "give me somewhere to stand, and I will move the earth,"²⁸ at its face value and ridiculing him because of it. Removing the second

²⁵ In *The Oxford Companion to the Mind*, Edited by R. L. Gregory, p. 71. Oxford: Oxford University Press, 1987. This entry on behaviorism was written by David Cohen. This is a particularly strange as David Cohen is the biographer of Watson, and he should know better. This would seem, therefore, deliberately false. What Cohen says here is, in fact, a good deal more extreme than what he had to say in the biography.

²⁶ J. B. Watson, *Behaviorism*, p. 104. (Chicago: University of Chicago Press, 1st ed., 1924).

²⁷ Pappas, *Synagog*, Ch. VIII, 10, xi.

sentence in order to claim that Watson seriously believed this, is an academic fraud, and its perpetuation in the literature is a stain on the history of psychology. How was this allowed to happen? Two possibilities come to mind: either the multitude of writers of textbooks, articles, etc. kept copying it from each other without checking the original, or they knowingly misled their readers. It is not hard to guess that the truth lies somewhere between the two, with the weight on the side of the former.²⁹

(VI) "Later" Watson

For many years after leaving his academic position, Watson maintained his interest in promoting his objective psychology, with increased emphasis on the practical uses that could be made of it. He mostly published in popular journals, for example in Harper's Magazine, and made few excursions into academic writing. This is the period termed by some, "later Watson," and it is claimed that in that period Watson became all the more extreme in his views. This, too, is incorrect.³⁰

Two major scholarly contributions of Watson, published in the later period, are *The Battle of Behaviorism*³¹ which is the text of Watson's debate with McDougall at the invitation of the Psychological Society of Georgetown University, and *Behaviorism*³² which was originally published in 1924, and extensively revised and published in 1930.

The *Battle of Behaviorism* is particularly interesting for two reasons. First, in it Watson gives a remarkably clear and concise summary of behaviorism; second, it represents the glaring contrast between the measured, mild, and scholarly tone of Watson, and the personally offensive, rabid attack by McDougall who, it would seem, foamed at the mouth as he participated in the debate. In Watson's summary there is a passage that, if read by his detractors, should

²⁸ Nowadays, not many writers seem to check their original sources.

²⁹ I was surprised recently to see that my friends Morris and Todd, who generally have a balanced understanding of matters connected with behaviorism, have swallowed this one. See their chapter 5 in Todd and Morris, Eds., *Modern Perspectives on J.B. Watson and Classical Behaviorism*, in press.

³⁰ J. B. Watson and W. McDougall, *The Battle of Behaviorism*, 1929. (New York: W. W. Norton & Co.).

³¹ J. B. Watson, *Behaviorism*, 3rd ed., 1930 (New York: W. W. Norton & Co.).

³² "Radical behaviorists" who believe that their position is distinguished from other sorts of behaviorism by the attribution of stimulus status to events "inside the skin" would do well to make a special note of this statement.

effectively eliminate yet another of their slogans, namely, that behaviorism is "stimulus-response" psychology.

The rule, or measuring rod, which the Behaviorist puts in front of him always is: Can I describe this bit of behavior I see in terms of "stimulus and response"? By stimulus we mean any object in the general environment or *any change in the physiological condition of the animal*,³³ such as the change we get when we keep an animal from sex activity, when we keep it from feeding, when we keep it from building a nest. By response we mean that system of organized activity that we see anywhere in any kind of occupation, such as building a skyscraper, drawing plans, having babies, writing books, and the like.³⁴ (*My italics*)

In the same book Watson summarizes his view of "thinking" —yet another matter on which psychologists and others have been misled— as follows:

I take the position today that whenever the individual is thinking, the whole of his bodily organization is at work (implicitly) —even though the final solution shall be a spoken, written, or subvocally expressed verbal formulation. In other words, from the moment the thinking problem is set for the individual (by the situation he is in) activity is aroused that may lead finally to adjustment. Sometimes the activity goes on (1) in terms of implicit manual organization; (2) more frequently in terms of implicit verbal organization; (3) sometimes in terms of implicit (or even overt) visceral organization. If (1) or (3) dominates, thinking takes Place without words.³⁵

McDougall's ravings would not be worthy of quoting here, were it not for the fact that they serve as examples of the viciousness directed by many at Watson, both personally, and with regard to his ideas. The following is a sampling.

[In Watsonian behaviorism] all such facts as feelings, feelings of pleasure and pain or distress; emotional experiences, those we denote by such terms as anger, fear, disgust, pity, disappointment, sorrow, and so forth; all experiences of desiring, longing, ... all experiences of recollecting, imagining, ... of planning, of anticipation, ... are to be resolutely ignored by this weird psychology.³⁵

³³ *Op. cit.*, pp. 19-20.

³⁴ *Ibid.*, pp. 34-35.

³⁵ *Ibid.*, pp. 48-49. This, despite the fact that Watson had told him, in that very debate, that this was not the case.

[Different from watsonian behaviorism]... is sane behaviorism... And now, trampling ruthlessly on Dr. Watson's feelings... I claim in fact that, as regards the behaviorism which is approvingly referred to by many contemporary writers other than technical psychologists, I, rather than Dr. Watson, am the arch-Behaviorist.³⁶

I, unlike Dr. Watson have not made myself at the same time famous and ridiculous... Bizarre, paradoxical, preposterous, and outrageous... creed... mechanistic dogma... absurd views of human nature... useless... closed mind... shallow and pretentious.

I am sorry for Dr. Watson; and I am sorry about him. For I regard Dr. Watson as a good man gone wrong.³⁷

Finally, here is a prediction by McDougall:

...vote for Dr. Watson, for Behaviorism, and for man as a penny-in-the-slot machine. Further, vote for him now; for you may never have another chance. After a few years, if my reading of the signs of the times is not wholly at fault, the peculiar dogmas for which he stands will have passed to the limbo of "old forgotten far-off things and battles long ago"; they will have faded away like the insubstantial fabric of a dream, leaving not a wrack behind.³⁸

Watson had anticipated the barrage of insults awaiting him at the debate, and began his paper as follows.

When I innocently committed myself to meet Professor McDougall in debate, I understood that all that required of me was to give a brief account of the new Behavioristic movement in psychology now rapidly forging to the front. Had I known that my presentation was expected to take the present form I fear timidity would have overcome me. Professor McDougall's forensic ability is too well

³⁶ *Ibid.*, p. 49.

³⁷ *Ibid.*, p. 81.

³⁸ The voting refers to the practice that at the conclusion of the debate the audience voted for the side they thought had won. Watson won by a large margin at which McDougall could not suppress his nastiness: he said mostly women had voted for him. (This probably referred, amongst other things, to his knowledge that a few years earlier Watson had been voted "the most handsome professor" by the students at Johns Hopkins.) The satisfying irony here is, of course, that the prediction came true but conversely. McDougall has been relegated to his "old forgotten" and we —supporters, followers, critics, antagonists alike—continue to worry over Watson's philosophy of science.

known, and my own shortcomings in that direction are too well known, for me to offer him combat. So, I think the only self-protective plan is to disregard all controversial developments and attempt to give a brief resume of Behaviorism.³⁹

Finally, we turn to two passages from the introduction Watson wrote to the revised edition of Behaviorism, published after his departure from academia. These throw light on two crucial points. The first has to do with Watson's acknowledgment of his occasional exaggerations, as in the case of the "dozen infants" statement, discussed above.

In this new edition I have first of all tried to improve the style of the book by taking out all trick of trade by means of which a lecturer tries to keep his audience awake. I have tried to take out most of the overstatements and exaggerations common to all lectures.⁴⁰

The following bears on three matters that have affected the course of behaviorism up to the present: (i) why behaviorism, and Watson personally, have been the subjects of ferocious attacks, (ii) what have been the consequences of behaviorism, and (iii) Watson's in hindsight, of his deliberate policy of not replying to criticism.

...behaviorism is treading on the hoof of somebody's sacred cow—it is threatening the established order of things... [Therefore] it is only natural that such criticisms should appear. Many of the older psychologists had well-established laboratories—with many introspective publications behind them. behaviorism called for new laboratories and even new words in which to couch lectures. Even the economic life of the professor was apparently threatened... What has been the result of the storm? First certainly a new literature—a literature of criticism. Some of this has been personal, even vituperative. I have never replied to criticism. Only rarely has anyone taken the cudgels for behaviorism. Each behaviorist has been too busy in presenting his experimental results or his generalizations to concern himself with answering criticisms. As I look back over this critical literature, I am inclined to think that our science would have been clarified had we taken the trouble to answer criticism, because some of the most

³⁹ *Ibid.*, p. 7. This is the only reference he made to McDougall himself. The remainder is, as promised, a summary of behaviorism. After the debate both were invited to write rejoinders, for inclusion in the book. Watson, true to his custom of never replying to his critics, did not contribute. McDougall's contribution is worth reading if one has a strong stomach, as an object lesson on how degraded academic debate can become in the hands of unscrupulous people.

⁴⁰ *Op. cit.*, p. xi.

childish misunderstandings and misstatements of our position have crept into psychological literature.⁴¹

Those childish misunderstandings and misstatements have now become so deeply rooted in the literature of psychology and many other fields besides, that writing merely to describe the misunderstanding of the past would be quite ineffective. For this reason, in this paper I wished to let the originals speak for themselves. The passages presented here give evidence of only a small portion of the truth. There is no good substitute for reading the original works. Some readers of the above quotations will remain skeptical as to how representative they are since, they fundamentally contradict the already established views about Watson and behaviorism. It is natural to ask, is it possible that all that has been said and written about Watson and behaviorism are wrong? If they take the trouble to search, however, they will find no contradiction between Watson's other scholarly writings and what has been selected here. In other words, these quotations accurately represent Watson's views.⁴²

(iv) Watson's terms

Some of the terms used by Watson are open to misinterpretation; for example, the term "reaction" which, the context makes clear, referred to "action. Just as his use of the terms "stimulus" and "response" (integrated events of the environment and of the organism, respectively) were broader than their usage by others, so were several of his other terms. Although there is no mistaking them in their context, they have nevertheless been used to ridicule what Watson has written. Moreover, the facts have become even further distorted when these terms have been taken in their present-day meanings, even though the meanings have significantly changed since Watson's time. That practice, too, stands in the way of seeing what Watson really said. It is, however, an absurd practice: it is like turning up the room temperature upon hearing your guest say he is "cool," or asserting that the lyric writer was homosexual because he wrote the lines of the old song, "I am happy and gay."

⁴¹ *Ibid.*, p. x. I have inverted the order of the three segments, separated by series of periods, to fit the flow of the points made in the text. This has not altered the meaning in any way.

⁴² I challenge anyone to find any distortion of meaning here. Moreover, these quotations accurately represent Watson's position, and no contradiction will be found in Watson's scholarly writings provided, of course, entire relevant context is taken, as I have done here.

Apart from the difficulties that arise from single terms, some of Watson's complete statements are clearly misguided when judged in the light of what we now know about such statements. These are of the kind, "I do not know what mind is," etc.⁴³ Now, Watson did not exclude by edict any word of the language from his writings, and he freely used phrases such as "... comes to mind." He knew, of course, what he meant when he wrote phrases such as that, as did anyone reading them. He cannot, then, have been referring to that sort of use of the word "mind" in saying he did not know its meaning. Rather, the claim is that the meaning cannot be known —though Watson would not have put it that way— when it is devoid of any context.⁴⁴ This was the sort of muddle that permeated scholarly thought of all sorts, resolved only after the contributions of Wittgenstein, Ryle, Austin, and the "linguistic philosophers".⁴⁵ With reference not only to Watson but to all conceptual literature, it is fitting to consider them as pre- and post-Wittgenstein, and to view their statements in that light. Had Watson read the linguistic philosophers he would have stated his objections to psychological attempts to "investigate" the mind, the mental events, etc. differently. Nevertheless Watson's objections, when understood in that light, have stood on firm ground, even though he did not know the reason for this, as did not all others.

(v) What Watson contributed to the science of Psychology

One of the less attractive features of psychology in the present century has been the failure to distinguish conceptual from empirical assertions, and consequently sustaining a state of unremitting muddle. When the criteria appropriate for one are unwittingly applied to the other, confusion reigns. This has been the case with regard to Watson's work. All that Watson contributed does not comfortably fit under the title "behaviorism." In fact, Watson made three distinct kinds of statements:

⁴³ These are the sorts of statements to which my friend and past colleague of many years, T.R. Miles referred when he said "Watson talked a lot of drivel, too." That is indeed so, when judged by the criteria that were not known then.

⁴⁴ This is generally the case. If, for example, I stopped a student or a colleague in a corridor and said "yellow" they, too, would not know what I was talking about. It could be a reference to their courage, to the color of someone's dress, to the leaves of the plant in my room, etc., etc. The only sensible response in that situation would be something like "what do you mean?" "what about yellow?" and the like.

⁴⁵ For a detailed discussion of this and related issues, see P. Harzem and T.R. Miles, *Conceptual Issues in Operant Psychology*. (London: John Wiley and Sons, 1978).

1. Statements of philosophy of science as apply to psychology, i.e. metaphysics;
2. Theoretical statements about human nature;
3. Statements describing his empirical discoveries.

The first, metapsychology, is the most significant and the much-debated one. It is concerned with the questions of what is a science, what is a science of psychology, and what constitutes the proper subject matter of such a science. Watson distinguished the Science of Psychology from other sorts of psychology that others may wish to talk about. He did not outlaw those other kinds, but wished only to exclude non-scientific speculation from the science of psychology. He termed his psychology *Objective Psychology*, and insisted, over and over again, that all feasible methods of science must be used in objective psychology. The anger of his opponents rose from the corollary of this, i.e., that since no "method" other than those of science was admissible, introspection was to be excluded.⁴⁶ Behaviorism, too, was a corollary of this basic position. If exclusively the methods of science are permissible, then what is studied must be *scientifically* observable.⁴⁷ Since what is scientifically observable about human nature is human behavior —and not whatever is "introspected"— only human behavior constitutes the proper subject matter of the science of objective psychology. Behaviorism, on this showing, is the same as objective psychology. It is important to note that this did not, in Watson's view, rule out the study of, say, nerve and muscle action. He insisted only that such studies be conducted by those who know the available evidence in those fields and who are trained in the appropriate techniques. In fact one of his students, Karl Lashley, —one who sustained loyal contact with him to the end—turned increasingly to those sorts of investigations.

Second, Watson made a variety of theoretical statements about behavior, fully knowing that these are subject to revision in the light of evidence.

Accordingly, as his researches and the work reported by others progressed, he modified these theoretical statements, and dropped some of them.⁴⁸ This is scientific behavior at its best, and Watson was a master of it. It is both

⁴⁶ It is sometimes overlooked that the "method of introspection" was as ubiquitous in psychology then as, say, the analysis of variance is now.

⁴⁷ There has been a misunderstanding on this point, too, by contemporary psychologists, behaviorist and otherwise, alike. Observable does not, of course, mean visible to the naked eye, and Watson's writings make it clear that he did not even think of such an absurd limitation.

⁴⁸ His detractors have randomly selected from the set of successively changing "theories" those that served their destructive purposes, concealing or unaware that Watson may have revised that theory.

sad and humorous to reflect that some of his most noisy critics have been those who were given to defending their theories to the last ditch, and they complained that Watson was fickle in his theoretical pronouncements.

Third, there are Watson's empirical investigations. He was an untiring researcher, always questioning, always finding new problems to investigate. He was devoted to research, and all of his career, in academia and in advertising, show that he enjoyed it the most. The endlessly cited little-Albert experiments are a minuscule part of his research, important, though, they were.

(vi) Conclusion

John Broadus Watson was a great man.

Twice he built a distinguished career, each upon his love of empirical discovery, and both successful by any standard. When the first was destroyed he did not complain; instead, he set about raising the second on the ruins of the first. Only the most mean-spirited of people would fail to admire this picture of moral strength; and, alas, they have. A burden of great men and women is that they are prone to be hated, harassed, and hurt by their jealous, envious, and threatened contemporaries. Sometimes such hatreds succeed. And they did, in the case of Watson. So, Watson's name was added to the line of people in history who were maligned and unappreciated in their time. As it has been the case in other instances in the past, this time, too, the prospect of a significant contribution to our civilization was lost. Psychology took a turn away from the Objective Psychology of Watson, and correcting course is consuming too many decades and too many careers. Much remains to be learned from John Broadus Watson, if only the new psychologists and, indeed, all scientists of human conduct, could be persuaded to read him. I have no hope that they will.

Postscript

When I was invited to contribute to the symposium organized by Emilio Ribes-Iñesta, I planned to write mainly on the place of behaviorism in contemporary psychology, with comment on how much of the *original behaviorism* had become integrated into psychology while, at the same time, the claim being abroad that "behaviorism is dead!" If I planned to say, behaviorism is dead it

is because it has been absorbed into psychological thought of all kinds, without the psychologists knowing it.

As I read Watson in preparation for that paper, I became more and more fascinated by the discrepancy between what has now become the established account of his views and what his views in fact were. I was also fascinated by how much —almost all, as it turned out of the position held by contemporary behaviorists was the same as that of Watson. Behaviorists of today regard their brand of behaviorism —which is most commonly named radical behaviorism— quite different from that of Watson —which they name "methodological behaviorism." A careful reading of Watson shows, however, that "radical behaviorism" differs from what the critics of behaviorism say about behaviorism, but not from what Watson wished to develop.

As I read, I was drawn deeper into a mystery that was emerging: How and why had Watson, whose views were quite reasonable even if at times strongly expressed, come to be known as an extremist? That, I thought, may have something to do with the fact that he was obliged to leave academic life early in his career, and therefore unable fully to develop his position. I was led to read about his personal life, wondering whether a similar discrepancy did not lurk in what has been written about it. And, as it turned out, there it was with all the signs of persecution of a decent and intellectually brilliant human being. His had been the very human weaknesses and personal foibles, no different from those of anyone reading these lines. Once the true picture is unearthed, I thought, let him who is without those weaknesses throw the first stone. And there was worse to come.

Those who were primarily instrumental in starting the destruction of Watson's career and personal life were worse characters by a long chalk than Watson himself. We have been told that Watson was a womanizer (an exaggeration with a touch of truth) and that he had a love affair while a married man (true.) His detractors, on the other hand, were people adept at character assassination, treacherous, two-faced, and given to lying when it served their purposes. Amongst them Watson had been an innocent abroad, having never lost the basic decency of his small-town upbringing in South Carolina. He was not up to seeing through the political intrigues of colleagues who pretended friendship while seeking to hurt his career, and with the malice of influential people who had become entangled in his personal life through marriage.

As my fascination drew me deeper into the evidence I was compelled to continue reading, and I kept asking my friend Emilio Ribes to give me more time, more time, more... to write this paper. For his patience I am grateful.

Even now, this paper merely scratches the surface. I have not even come close to reading all there is to read on the subject. A new biography of Watson, bringing out the previously hidden facts of his life and work, is badly needed. Though sorely tempted to do so, I do not plan to undertake that demanding task. In the unlikely event a graduate student, say, shows special interest in producing a dissertation on Watson's work, I shall encourage that person to undertake that important work. If no collaborator is forthcoming, I may yet yield to the temptation.

The role of repetition in transforming actions into habits: the contribution of John Watson and contemporary research to a persistent theme¹

El papel de la repetición en la transformación de las acciones en hábitos: la contribución de John Watson y la investigación contemporánea a un tema persistente

Robert A. Boakes
Department of Psychology
University of Sydney

Abstract

It is argued that John B. Watson offered in 1914 an experimental program based on animal research to study one feature of William James' concept on automatic habit: the increasing control of individual components in a response sequence by kinesthetic feedback. Some other aspects of James' concept were

¹ Acknowledgments

This paper is dedicated to the memory of Donald Broadbent who died in April, 1993. His book, *Behavior* (1961), was one of the first sources for my interest in the topics discussed here. Another was Richard Herrnstein, my doctoral supervisor, who provided an introduction to the 1967 edition of J.B. Watson's *Behavior: An introduction to comparative psychology*. On reading Herrnstein (1967) again for the first time in very many years I realized the extent to which he had kindled my interest in the early history of behaviorism.

Turning to much more recent help, advice and support for the research providing the background to this paper, I very much appreciate the opportunity to work for 12 weeks in 1992 in the 4th floor animal laboratories at the Department of Psychology, University of Cambridge which was provided by Nick Mackintosh and Tony Dickinson, and even more the highly stimulating environment which they, together with Bernard Balleine and other members of the Department, have created. Financial support for this study leave project was provided by the University of Sydney, and experimental work carried out at this University was partially supported by the Australian Research Council.

Helpful comments on a draft were generously provided by Bernard Balleine, Tony Dickinson, Dick Herrnstein, Tim Miles and Bob Rescorla. Finally I wish to acknowledge the constant advice and support that Fred Westbrook has given me since I came to Sydney in 1989, and also that from many other members of the Australian Learning Group, at one of whose meetings a very early version of this paper was first presented.