

Loves Slaves and Wonder Women: Radical Feminism and Social Reform in the Psychology of William Moulton Marston

Matthew J. Brown

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0.1 To Do

- Merge sections 2.1 and 2.2
- Bibliography
- Line-editing
- Figure out how to refer to Marston's work given invisible coauthors

0.2 Abstract

In contemporary histories of psychology, William Moulton Marston (1893-1947) is sometimes remembered for helping develop the lie detector test. He is better remembered in history of popular culture for creating the comic book superhero Wonder Woman. In his time, however, he was a significant psychologist and public figure, contributing to research in deception, basic emotions, abnormal psychology, sexuality, and consciousness. He was also a radical though unorthodox feminist with deep connections to women's rights movements. Marston's work is instructive in several ways for philosophers of science, particularly on the question of the relation between science and values. Although Marston's case provides further evidence of the beneficial role that feminist values can play in scientific work, nevertheless, it poses challenges to philosophical accounts of value-laden science. Marston's feminist values allow him to identify weaknesses in the research of other psychologists, and they allow him to posit psychological concepts that avoid reifying social stereotypes; this aspect of his work exemplifies earlier views about feminist value-laden research. His scientific work also implies *normative* conclusions about psycho-emotional health for individuals and society, a direction of influence that is relatively under-theorized in the literature. Furthermore, Marston makes use of the popular press as an unusual venue of the *application* of his scientific research as well as the advocacy of his

radical values. To understand and evaluate Marston's work requires an approach that treats science and values as mutually influencing; it also requires that we understand the relationship between science advising and political advocacy in value-laden science.

1 Introduction



Figure 1: Panel from “The Rubber Barons,” *Wonder Woman* #4

In a story from *Wonder Woman* #4 (Apr/May 1943) entitled¹ “The Rubber Barons,” Wonder Woman confronts the spy Elva Dove with evidence about her love interest Ivar Torgson, one of the eponymous Rubber Barons who uses Elva’s love for him to convince her to spy on the Army. Wonder Woman shows Elva what the narrator calls “an X-ray photograph of Torgson’s subconscious,” revealing that Ivar imagines himself a wealthy king and Elva his chained slave.

¹Marston’s *Wonder Woman* comics appear in *All Star Comics* (only #8 was written by Marston), *Sensation Comics*, *Comics Cavalcade*, and *Wonder Woman*. I will use italics to distinguish between the comic book *Wonder Woman* and the character *Wonder Woman*. The early *Wonder Woman* stories were originally published without titles, but have been given titles in various anthologies and databases. Marston’s original scripts also provide titles. *Wonder Woman* #4 is collected in *Wonder Woman Archives* vol. 2, from which I take the title.

Wonder Woman promises that she can “cure” Ivar with Elva’s help. Using Wonder Woman’s magic lasso, which has the power to make the person it binds submit to and obey the user, Elva begins a three-day role-reversal game where Elva is the queen and Ivar the bound slave. When Ivar complains, though he kneels at her feet, Elva tells him, “I’m making a man of you! Learning to submit is the final test of manhood!” (See Figure 1.) And much to his surprise, Ivar not only quickly learns to submit, he enjoys it! So much so that after one day, Elva need no longer use the magic lasso. Unfortunately, when Elva gives up the game and tells Ivar, “I just want to be your adoring wife,” Ivar’s “domination” and “male conceit” return, and Ivar goes on to trouble Wonder Woman once again, before she eventually subdues him and reforms Elva.

In this paper, I will show that far from being just a kinky story from old comic books, this story is a puzzle piece in an important but under-appreciated episode in the history of feminist science, and a particularly rich case for philosophers of science interested in the relationship between science and values, and the public and political role of science and scientists. To understand that link, we need to know about Wonder Woman’s creator and author. The early Wonder Woman comics were credited to “Charles Moulton,” but as with many of the early comic books, this was a pseudonym. Wonder Woman was drawn by Harry Peter, who decades earlier had drawn suffrage cartoons, and edited by Sheldon Mayer, but most important for our story, he was written by a man named William Moulton Marston.²

William Moulton Marston was a Harvard-trained psychologist and lawyer, the student of Hugo Münsterberg and thus intellectual heir of Wilhelm Wundt and William James, the founders of scientific psychology. Marston was the inventor of a lie detector test based on changes in systolic blood pressure; his research was foundational for the developers of the polygraph. He published articles and monographs in the leading journals and book series in psychology and criminology. At one point, Marston styled himself “the world’s first consulting psychologist,” and consulted for the film and comic book industries, among others. In his student days, he wrote scripts for silent films; in his later years, he wrote a novel, self-help books, and created and wrote the comic book character Wonder Woman. He was a media theorist who wrote books and articles on the nature of “sound pictures” (movies with sound) and comics. He was an ardent and radical feminist, as well as a nonconformist and polyamorist.

First, I will argue that Marston exemplifies many aspects of feminist research, in that his feminist values play ethically and epistemically virtuous roles in his scientific work. I will focus this part of my analysis on his research on the emotions and his account of psycho-emotional health. I will also argue, however, that Marston’s work challenges the main accounts from feminist philosophy of science and the literature on values in science, because of the way that his

²The editor-in-chief of DC Comics, who hired Marston first as a consultant, then to create and write Wonder Woman, was named Maxwell Charles Gaines. “Charles Moulton” is a combination of Gaines’ and Marston’s middle names.

scientific work seeks to inform and transform our values and our social institutions through proposed educational and social reforms, popularization efforts, and even popular media such as film, novels, and comics.

2 The Life and Works of William Moulton Marston

Before I proceed into this argument, however, I will provide some key background information about Marston's life and scientific work that is necessary to understanding both his commitment to feminist values and his scientific work on the emotions.

2.1 Education and Career

Some call into question Marston's status as a scientist, but a full look at his academic career makes it clear that he is worth taking seriously as a figure in the history of psychology. The wide variety of Marston's pursuits, his inability to hold down an academic position, his tendency towards self-promotion, and his later involvement in lowbrow literature and comic books have all led some to dismiss him as a huckster and charlatan. He rarely appears as a figure in the stock histories of psychology. Nonetheless, he was trained by a protege of the two most important founding figures of psychology, he was well regarded by many of his peers, and he published in many of the best venues.

Marston was trained in psychology and law at Harvard, receiving his B.A. in 1915, a law degree in 1918, and a Ph.D. in psychology in 1921, with a thesis entitled "Systolic blood pressure symptoms of deception and constituent mental states." At Harvard, Marston worked in the laboratory set up by William James, where he was a pupil of Hugo Münsterberg, a student of Wilhelm Wundt that James brought in to run the Harvard psychology lab (Daniels, 12; Rhodes 2000, 98; Benjamin 2006, 103n8). Münsterberg's role as Marston's mentor is quite helpful in understanding some of Marston's abiding interests. Münsterberg was also quite interested in lie detection through physiological indicators as well as popularizing psychology (Bunn, 93). Both Münsterberg and Marston were film buffs with an interest in the psychology of film (ibid). And like Marston, Münsterberg left few devotees in the academic community to carry on his legacy (ibid.).³

Marston produced a variety of articles in academic journals such as *American Journal of Psychology*, *Journal of Experimental Psychology*, *Psychological Review*, and *Journal of Criminal Law & Criminology*. He contributed two volumes—*The*

³Unlike Marston, Munsterberg usually enjoys brief mention in histories of psychology. For more on Munsterberg, see @Hale:1980;@Spillmann:1993;@Benjamin:2000;@Benjamin:2006

Emotions of Normal People (1928) and *Integrative Psychology* (1931, with C. Daly King and Elizabeth Holloway Marston)—to the prestigious *International Library of Psychology, Philosophy, and Scientific Method* edited by C.K. Ogden (the same series that published major works by Adler, Jung, Freud, Ogden and Richards, Piaget, G.E. Moore, Wittgenstein, Carnap, and Max Black). He even contributed to the 14th edition of the *Encyclopedia Britannica* an article on the “Analysis of Emotions” (Marston 1929). His main interests were lie detection and the physiological markers of deception, the emotions, especially the basic emotions and the neurological and physiological basis of emotions, abnormal psychology and psychological health, and the science of consciousness. *Emotions of Normal People* was the culmination of his work on the emotions, while *Integrative Psychology* aimed to be a textbook applying Marston’s general approach to all areas of psychology.

Marston had a variety of impressive academic appointments, though over the course of his career he tended to move down rather than up in rank. He was full professor and chair of psychology at American University (1922-23), assistant professor at Tufts (1925-26), and lecturer at Columbia and NYU (1927-??@@) (Daniels, 17; *American Men of Science* (AMoS)). His inability to hold down an academic position was almost certainly due to personal factors, at least in part. Jill Lepore quotes from a letter of recommendation from Marston’s file, from one of his professors at Harvard, Herbert Langfeld: “He has had several positions, which he has not been able to hold. Rumors have come to me from these various places, which I have not been able to substantiate. It therefore makes it very difficult for me to say anything further than that when he took his degree at Harvard he gave every promise of doing excellent work”(130-1). Lepore clarifies the meaning of this letter in the historical context, pointing out that this vague talk of unsubstantiated rumors was the same sort of “blacklist language” that would have been used about “homosexuals,” and that it would have certainly prevented Marston from being hired academically. Presumably, whatever caused these rumors also had something to do with his inability to keep an academic position.

Marston is well-known for his work in applied forensic psychology in developing the lie detector test. (Unlike the creator of the polygraph, Marston did not hold any patent over the lie detector. As Lepore recounts, when asked to show people the lie detector, Marston would reply, “I’m the lie detector!” (162).) He attempted to intervene in the case of *Frye v. United States* using the lie detector, which helped set the test for admissibility of scientific evidence in federal and most state courts for seven decades (Marston’s contribution was essentially negative, as his work was ruled inadmissible). Marston was also a tireless popularizer of psychology. Not only did he write articles and letters promoting the use of the lie detector in criminal investigations and legal trials, but he also wrote two popular psychology texts, *Try Living* (1937) and *March On!* (1941), and a voluminous quantity of articles for magazines like *Cosmopolitan*, *Good Housekeeping*, *Reader’s Digest*, and *The Rotarian* (see frontmatter of Marston 1937). In these works, Marston set out his vision of psychology as a progressive,

liberating force that could teach us to “Live, Love, Laugh, and Be Happy” (1937, 1) and, as in the subtitle of *March On!*, of “Facing Life With Courage” (1941).

Finally, Marston had a significant interest in popular culture and the popular arts. With Walter Pitkin, he wrote a text on writing “healthy and appealing screenplays” called *The Art of Sound Pictures* (1930) (Rhodes 2000, 99), and he did consulting work for Universal Pictures and for All American / Detective Comics. His last prose book was a biography, *F.F. Proctor, Vaudeville Pioneer* (1943). Marston also turned from analyst to creator, penning a novel called *Venus With Us: A Tale of the Caesar* (1932) (retitled *The Private Life of Julius Caesar* in a later printing) and creating the iconic comic book superheroine, Wonder Woman. Marston wrote and had almost complete creative control over *Wonder Woman* from the character’s inception in 1941 until his death in 1947 (the final Marston stories appeared in early 1948).

Marston’s career may seem a strange and eclectic collection of pursuits, the work of a distracted dilettante or a Renaissance man of diverse interests, and we can see a bit of both in Marston. Part of my aim, however, is to argue that there is a greater unity to Marston’s diverse pursuits, derived from Marston’s vision of the aims and uses of psychology, the psychological theories and technologies which he was attempting to develop and promote. From this point of view, the popularizations, the novels, consulting jobs, and comic books all make sense as part of his scientific enterprise.

2.2 Personal Life

Understanding a few things about Marston’s personal life are important both to position him and his work as feminist, and second, to explain the external factors that scuttled his academic career.

As Marston discusses in *Try Living* (1937), he was a maudlin youth who often contemplated suicide. He was so miserable in his freshman year at Harvard, because he hated his courses so much, that he actually obtained the poison to do himself in. There was one course he loved, and at which he excelled, the Ancient Philosophy course taught by George Herbert Palmer, and when he received an A on the exam, he decided to go on living (2-3). And Palmer was, among other things, a feminist, a suffragist, and faculty sponsor of the Harvard Men’s League for Woman Suffrage. Emblematic of the times, that League brought Emmeline Pankhurst to campus to speak.⁴ Marston wrote screenplays in college for silent films, and one an Edison Company talent search for the script of *Jack Kennard, Coward* (Lepore 38-9).

⁴Jill Lepore’s recent book, *The Secret History of Wonder Woman* (2014), is an extremely thorough and well-written biography of Marston and his family, from which I draw several of the details in this section. The influence of Palmer’s and Pankhurst’s feminism is discussed in Chapter 1. (Technically, Pankhurst was banned from campus by the administration, and spoke in a dance hall near campus.)

Marston met Sadie Elizabeth Holloway in grammar school, and married her between graduating college and starting Harvard Law School (Lepore 16, 44). While William Marston attended Harvard Law, Elizabeth Holloway Marston pursued her law degree at Boston University. During World War I, Marston got involved in World War I in the “U.S. Army’s psychological division” where he became a second lieutenant. After the war, both sought degrees in psychology, Marston achieving a Ph.D. at Harvard while Holloway got her M.A. at Radcliffe (Daniels, 12; Lamb 2001). Holloway had done her undergraduate degree at Mount Holyoke; Lepore describes the centrality of women’s suffrage and feminism to the intellectual atmosphere created by Mary Wooley, the college president. Her favorite subject was ancient Greek; her favorite book was an edition of Sappho of Lesbos (Lepore 17-23). By all accounts, Holloway was smart, fiercely independent, and ambitious. She held steady work most of her life, including a long editorial stint at *Encyclopedia Britannica*, supporting Marston when he was having trouble finding (and keeping) work. She was not only an inspiration and silent collaborator in much of Marston’s work; she is a credited co-author of *Integrative Psychology*.

Marston was hired by American University in 1921, where he taught legal psychology, became a tenured full professor after his first year, and was named chair of the Psychology department (Lepore 61, 71, 111). As previously mentioned, he got involved in the Frye case, though Frye lost and his testimony was ruled inadmissible. Frye’s lawyers were students of Marston’s at American (Lepore, 67). Unfortunately for both Frye and Marston’s employment, he was arrested for fraud on March 6, 1923, on charges related to businesses he had started up while still a student (Lepore 74). Although the charges were eventually dropped, Marston was fired, the Frye case lost on appeal, and either the Supreme Court refused to hear it or Marston’s students never brought it before the court (76).

Marston’s next position was as an assistant professor at Tufts (a distinct step down the ladder), starting in fall 1925. Holloway went to New York to take a position as managing editor of the psychology journal *Child Study: A Journal of Parent Education* (Lepore 111-2). At Tufts, Marston met a student in one of his classes named Olive Byrne, daughter of Ethyl Byrne and niece of Margaret Sanger, both of whom were feminists and birth control activists. He took her on as a student research assistant, then later as a friend, a collaborator, and then a second lover. She graduated from Tufts in 1926 and moved in with Marston and Holloway; Marston left Tufts as well, possibly because of his relationship with Byrne (Daniels, 13, 27-31; Saunders 42-3; Lepore 115-7). Byrne received a master’s degree in psychology from Columbia, and she pursued but did not complete her PhD there (Lepore 124-5). *Emotions of Normal People* incorporated not only the research that Byrne had assisted Marston with at Tufts, but her entire master’s thesis on “The Evolution of the Theory and Research on Emotions” (Lepore 124-8). When it comes to authorship, Lepore points out:

[T]here is an extraordinary slipperiness.. in how Marston, Holloway, and Byrne credited authorship; there work is so closely tied together

and their roles so overlapping that it is not difficult to determine who wrote what. This seems not to trouble any of them one bit. (ibid 127).

Thus, when examining the work of “William Moulton Marston,” it is crucial to keep in mind that said work is likely a collaborative production of (at least) Marston with Holloway or Byrne, if not both.

We can see how elements of Marston’s personal life may have frustrated his career. What can we learn about Marston’s feminism? The family’s close connection to Margaret Sanger is one key source of Marston’s feminism. When Joye Hummel started writing Wonder Woman scripts for Marston, Olive Byrne reportedly gave her a copy of Sanger’s *Woman and the New Race* as background reading (Lepore 103, 247). The theme of the book is the importance of birth control to feminism and “the revolt of woman against sex servitude,” the moral superiority of the feminine spirit, and that “love is the greatest force of the universe” (Sanger 1, 10-1, 181-2; Cf. Lepore 100-3). Sanger and Holloway read Sanger in graduate school, before Byrne joined their lives (Lepore 102). Marston also drew heavily on writings from the women’s movement that emphasized the moral superiority of women, a major theme of nineteenth-century feminists as well as gynocentric utopians like Inez Haynes Gillmore and Charlotte Perkins Gilman from the 1910’s, Marston’s and Holloway’s college years. Though most twentieth-century feminists focused on arguments based on equality rather than difference, Marston and Sanger both continued to emphasize women’s superiority (Lepore 86-7, 170-2). Marston held a recognizable, if radical, form of feminism for his day. I will argue that this feminism influenced his work for the better. But first, I need to explain some of the basic ideas from Marston’s psychology, to provide a background for understanding those feminist influences.

2.3 Basics of Marston’s Psychology

In the opening chapter of *Emotions of Normal People*, Marston makes a striking pronouncement: “I submit that the backbone of literature has been transplanted intact into psychology, where it has proved pitifully inadequate” (ENP 3-4). What he means is that scientific psychology has adopted wholesale our commonsense, folk concepts and categories of the mind, particularly for the emotions, while improving not at all on the clarity of understanding of nineteenth century Romantic literature. The ordinary names we use for describing emotions—fear, rage, joy, aversion, panic, wonder, etc.—are scientifically meaningless. What psychology needed to do was break away from concepts tied to literary tropes, commonsense stereotypes, and the social status quo, and develop its own scientifically meaningful set of categories. Marston’s criteria for scientifically respectable psychological categories were complex. First, they needed to have a biological basis, to make a connection with neuroscience. Second, they had to be based in a description of “normal people,” i.e., the fundamental categories

needed to describe a healthy, functioning person. Marston argued that emotions we call “rage” and “fear” are abnormal, unhealthy emotions, and as such, that they were not part of the basic machinery of the mind, but had to be explained in terms of states of dysfunction. Third, the categories had to be developed on the basis of and to illuminate his complex experimental work, which involved physiological measurements (such as blood pressure), “behavioristic observation, of the Watsonian variety”(PE 344), and introspective reports (none of these on its own, especially introspection, was a sufficient based of evidence).

Marston took the first criterion, of connecting psychology to biology or neurology, very seriously. Marston et al. devote nearly a fifth (102 of 543 pages) of *Integrative Psychology* to “the hidden machinery,” which consists mainly of laborious descriptions of neurological mechanisms that might underlie psychological phenomena. Marston nevertheless insisted on the *autonomy* of psychology. While neurology provided the necessary “structural and functional aspects” to understand psychological phenomena, psychology would focus on the “conscious aspect” (IP 11). The neurological and psychological level came together in what Marston called the “psychon,” the basic unit of psychology. Marston uses the term “psychon” to describe “integrative activity” within a synapse, where, he says, “Two separate nervous impulses arriving at the same synapse may there conflict with each other or facilitate are reinforce each other during their synaptic passage”(IP 97). The psychon is a basic unit of psychology, while the neuron (nerve) is the basic unit of neurology, the organs of physiology, the organism of biology, the atom and molecule of chemistry, and the proton and electron of physics. Psychons are building blocks of the conscious mind in the same way that neurons are building blocks of a functioning brain.

For Marston et al., psychons are the basis of consciousness, and because there are different types of neural systems, there are different kinds of consciousness. Sensory consciousness takes place in sensory centers (e.g., visual cortex) (ENP 65), thinking or thoughts take place in the “connector centers” (ENP 66) (generally cerebral cortex (ENP 46)), while “motor consciousness” takes place in motor cortex (ENP 66). Repurposing William James’s arguments for associating emotions with actions, Marston associated feelings and emotions with this motor consciousness. Marston accepted the claim that “emotion *IS* the awareness of these bodily changes *AS THEY OCCUR*”(ENP 55, emphasis in original) while ditching the James-Lange theory of emotions as sensory awareness of the body. The consciousness taking place in the motor synapses just is emotion, for Marston.

2.4 Marston’s Theory of Emotions

2.4.1 Primary Emotions

The emotions, according to Marston, are the product of an interaction between the “motor self” and “motor stimuli”—these are the two types of neural signals

that are integrated in a motor psychon; the integration is the emotional state. The motor self is defined as, “Continuous, tonic, motor discharge across motor psychons; psychonic impulses of tonic motor origin”(ENP 111). It roughly consists in spontaneous activities in the motor pathways, i.e., activities independent of stimuli. Paradigmatic instances of actions of the motor self include maintenance of balance and muscle tone, automatic reflex activities. Motor stimuli are phasic or transitory impulses in the motor pathways, “Phasic motor impulses at motor psychons; psychonic motor impulses of phasic reflex origin”(ENP 111). Crucially, *motor* stimuli are not the same as *sensory* or *environmental* stimuli; they do not come directly from the environment but from the sensory and mental mechanisms of the brain. A conscious decision to raise my arm independent of any change in environment may be a spontaneous action of the *thinking* self, but, as it takes my arm away from its current “resting” position, it constitutes a *motor* stimulus. The integration of motor self and motor stimulus produces motor behavior and an associated conscious emotion (See ENP 93-94; IP 142ff.)

On the basis of this account Marston identifies and define four primary emotions. The emotions are complex mental objects with several components. The four primary emotions are the extremes of a field with two axes of variation (ENP 102-103, see Figure):

1. Alliance/reinforcement vs. antagonism/opposition of the motor self and motor stimulus.
2. Relative strength of the motor self vs. motor stimulus.

In addition, each primary emotion has a characteristic dynamical effect on the motor self. Of course, all the primary emotions are also *normal* emotions.

Marston defines the four basic emotions (including their effect on the motor self) in the following way:

1. *Compliance* - Antagonistic stimulus stronger than motor self; decreased strength of motor self.
2. *Domination* - Antagonistic stimulus weaker than motor self; increased strength of motor self.
3. *Inducement* - Allied interaction weaker than motor self; increased strength of motor self.
4. *Submission* - Allied interaction stronger than motor self; decreased strength of motor self.

Marston compares these extrema to primary colors on a Munsell color wheel (see Figure), hence his preference for “primary emotions” rather than the more common “basic emotions.” Hence a set of “mixed” emotions are possible between the “primary” emotions. These are not properly “complex” emotions, as they are no more complex than the primaries. They simply represent points along

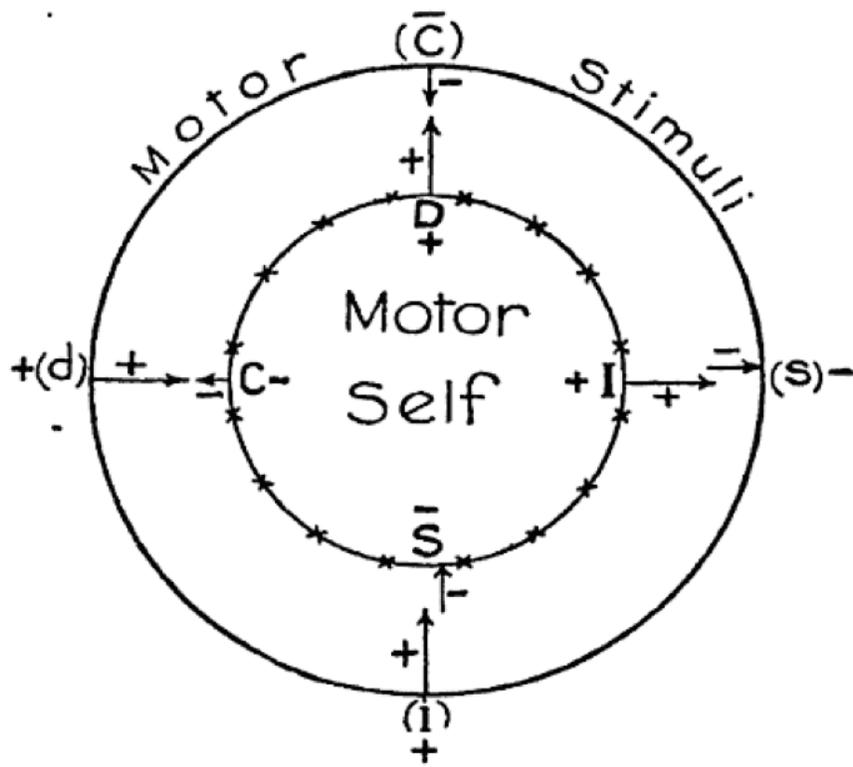


Figure 2: Diagram of the Primary Emotions from *Emotions of Normal People* (p. 104)

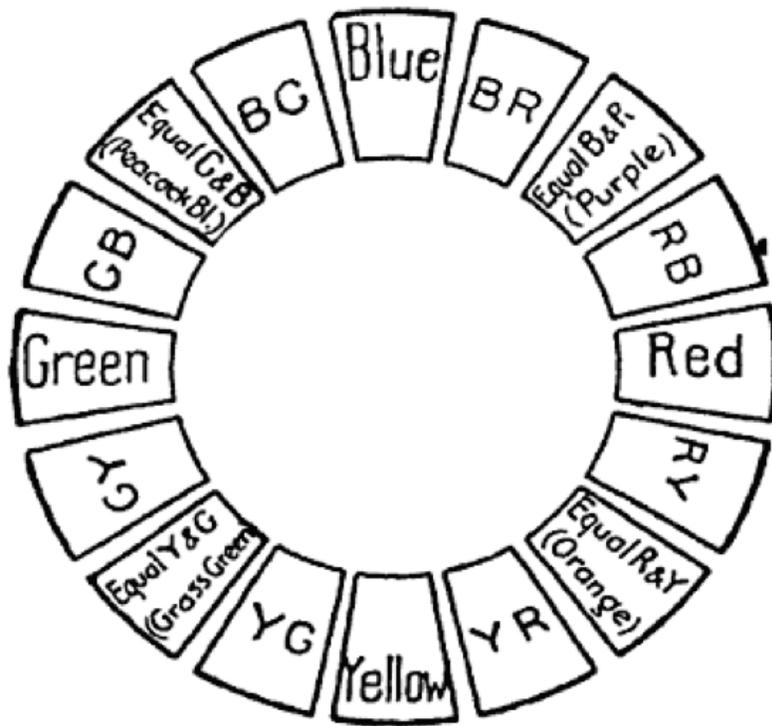


Figure 3: Diagram of Primary Colors, immediately adjacent to the diagram of Primary Emotions from *Emotions of Normal People* (p. 104)

the spectrum between the primaries. Oddly, Marston gives little further analysis of these emotions; so far as I have found, he doesn't even name them.

Of course, this basic synapse-level description of the emotions is far from their whole meaning. Marston goes on to give behavioral and subjective characterizations of these emotions in the following way:

1. *Compliance* - Behaviorally, adjusting oneself to an antagonistic stimulus because of the latter's superior strength. For example, when a scolded child falls in line with the will of the parent, or when an overwhelming aesthetic experience causes one to adjust one's posture to better appreciate the artwork. Affectively, compliance is an initially unpleasant feeling, due to the antagonism, but as the self yields to the stimulus it becomes indifferent and then pleasant.
2. *Domination* - The self exerts energy in order to overcome the antagonistic stimulus. For example, a baby grasps a held rod more tightly as an experimenter tries to pull it away. Competitive behavior amongst athletes would be another example. As experienced, it is initially unpleasant, but domination produces "pleasantness in proportion to success, co-existing with original unpleasantness" (ENP 112).
3. *Inducement* - The self exerts energy in order to attract an allied stimulus. For example, an infant holds out its arms to induce the mother to nurse, or an adult attempts to seduce the one he or she loves.⁵ Inducement is always increasingly pleasant.
4. *Submission* - The self adjusts itself to an allied stimulus, giving over to the latter. For example, an infant ceases crying with soothed by its parent, or the student carefully follows the instruction of a trusted teacher. Submission is always increasingly pleasant.

Rather than go into further detail about these categories of emotion and their justification, the BDSM-like ring of the terms, and the evidence that Marston provides, which is worthy of a paper in itself if not a book, I will turn to Marston's account of how complex emotions build on these primary emotions.

2.4.2 Complex Emotions

Beyond the simple emotions lying on the midpoints between primary emotions, Marston also describes *complexes* of emotions. Two types of complexes exist: temporal successions and simultaneous complexes. Temporal successions of emotions occur when you have one emotional response following on another towards the same stimulus (sameness of stimulus being primarily sameness of *motor* stimulus, though Marston sometimes refers to sameness of the *indirect*, i.e., *environmental* stimulus). Simultaneous complexes occur when two emotions take place within integrated motor centers. For example:

⁵Not to be confused with the abnormal sense of "seduction" (ENP 384).

1. Active compliance ceases once the stimulus is removed and leads naturally to domination (ENP 185).
2. Growth of a complied-with stimulus to threaten more and more of the motor self may cause a domination response (the “Instinct of Self-Preservation”; ENP 186-7).
3. Successful inducement is followed by submission to the stimulus. (ENP 278)

It is worth emphasizing that dominance and submission, on this account, are two natural “equilibrium” or “resting balance” states (ENP 275). (Marston represents temporal succession with a “+” sign, as in I+S or C+D.) Whenever a compliance response appears it should be unstable, tending towards a dominance response. The organism *complies* with a stronger stimulus to a point where it can evade it or assert its dominance over it.

How, then, do simultaneous complexes occur? Two emotions can take place simultaneously in relatively unrelated motor centers, though Marston argues that “they do not constitute a truly compound emotional quality of integrative picture, because the two primary emotional elements are integratively unrelated”(ENP 195-6); because they are separate, you are experiencing two emotions at once rather than a complex emotion.

The possibility of true simultaneous compound emotions depends on a further distinction between *active* and *passive* emotions. In the case of *domination*, *active* domination occurs when “the motor self, becoming sensible of a motor stimulus obstructing its path, actively hurls its increased energy, as it were, against the obstacle”(ENP 157). *Passive* dominance, on the other hand, requires merely that the motor self encounter a motor stimulus weaker than itself and therefore resist compliance without actively increasing itself. Likewise, passive compliance would have the self merely ceasing its attempt to dominate or assert itself; active compliance would involve active decreasing of the motor self to adjust to the motor stimulus. Marston argues that corporal punishment evokes only passive compliance, whereas one can evoke active compliance with antagonistic stimuli that have pleasant results (ENP 159-160).

Because passive emotions do not require any active reinforcement of tonic impulses or exertion of conscious energy, it is possible to combine a passive and an active emotion in an integrated fashion, so long as they are directed at different stimuli, or different parts of a complex stimulus. Marston identifies the following normal, complex emotions:

1. *Desire*: Passive compliance and active dominance (pCaD). The former component contributes a sense of “dissatisfaction” and “restless seeking”(ENP 200), while the former contributes a determination to control or possess something.

2. *Satisfaction*: Active compliance and passive dominance (aCpD). The former is responsible for a feeling of “pleasant active acquisitiveness”(ENP 202), and the latter a sense of triumph and relief.
3. *Captivation*: Active inducement and passive submission (aIpS).
4. *Passion*: Passive inducement and active submission (pIaS).

Each complex emotion is supposed to, by virtue of its integration, be more than and different from the sum of its component emotions. Oddly, Marston gives lengthy introspective descriptions of the qualitative experience of desire and satisfaction, but remains on a behavioral level in describing captivation and passion (except to indicate their pleasantness).

Complex emotions themselves figure in higher-order complexes. For example, desire, which is predominated by active dominance, is normally succeeded by satisfaction, which is predominated by active compliance. Internal and environmental tendencies will generally cause a return to desire after satisfaction. This succession is labeled “appetite” by Marston (pCaD+aCpD), and he sometimes labels desire “active appetite” and satisfaction “passive appetite” (then describes appetite as aA+pA). Captivation or active love and passion or passive love in succession constitute love simpliciter (pIaS+aIpS).

Marston identifies two further normal complexes: active and passive creation. Both emotions are paradigmatically associated with the relationship between mother and child in reproduction and childcare, but are much broader than that. Active creation is the combination of passive appetite (satisfaction) and active love (captivation). Marston glosses the experience of active creation emotion as “taking vicarious pleasure in doing something for another person” or “gratification in having made him do what was good for him”(ENP 347). Passive creation is the combination of active appetite (desire) and passive love (submission), as when infants seek to satisfy their desires by way of their passionate relationship to their mothers. Marston briefly but intriguingly associates passive creation emotion with artistic creativity, and active creation emotion with the creativity of physicians, teachers, and clergy. Marston implies but does not say outright that creation or creativity simpliciter would be a succession of active and passive creation (pAaL+aApL).

It is impossible in the length of an article to give full justice to the full complexities of the primary emotions, let along the complex ones. Instead of going into further detail on normal emotions, I will turn to Marston’s account of abnormal emotions.

2.4.3 Abnormal Emotions

Abnormal emotions are ones that either violate the normal temporal development and succession of emotions or which constitute disharmonious complexes. Abnormal emotions are, for Marston, primarily *reversals* of the ordinary sequences of emotions that cause *conflict*. Normal emotions tend toward a harmonious

and stable state of the organism, but abnormal emotions tend to destabilize the organism, move it way from emotional equilibrium, produce unpleasantness, and weaken the self.

Take the normal sequence of compliance and domination. The latter follows on the former because the organism needs to be able to re-assert itself in order to thrive. Marston says that compliance must be “adapted to” dominance, i.e., one’s compliance is instrumental to returning to a maximal dominant position: you parry the strike of a strong opponent in order to find an opening for the winning strike; you stop in your tracks when approaching a rushing stream and them dominate it by pushing over a leaning tree that will allow you to cross.

The sequence can be reversed in two ways, both of which violate the ordinary sequence of C+D. Over-dominance response, in which “dominance attacks compliance,” involves an immediate but ineffective dominance reaction to the stimulus forcing compliance. The problem is that it generally does not remove the compliance-stimulus and re-assert the self; at least, so far as the dominance blindly attacks the compliance-stimulus, rather than compliance leading to effective dominance, to the extent the return to dominance is less efficient and effective. Over-compliance responses, on the other hand, prevent a person from regaining a dominant position:

Compliance may run riot in the central nervous system, preventing the organism from adopting a new dominance response which tends to limit, in any way, the magnified compliance responses already evoked. (ENP 363).

The only role for dominance is to make possible further or stronger compliance response; hence, this is another way in which dominance is adapted to compliance rather than vice versa.

This is the general schema of abnormal emotions. Marston names the following basic families of abnormal emotions:

1. *Rage* - Over-dominant reversals
2. *Fear* - Over-compliant reversals
3. *Jealousy* - Over-submission reversals
4. *Hate* - Over-inducement reversals

There are also a number of more complex emotional reversals involving improper sequences of the more complex emotions like desire, appetite, love, etc. (E.g., passive love adapted to active appetite is an “emotion” that Marston calls “prostitution” (ENP 384).) There can also be abnormal sequences between different emotional levels, e.g., between active love and domination (resulting in “sadism”).⁶

⁶Marston takes pains to distinguish true sadism from acts of normal captivation involving “Mild whipping, spanking,” etc. (ENP 385).

3 Marston's Psychology as Feminist Science

From Marston's background, it is clear that he was a kind of feminist, who relied on recognizable feminist views from the late nineteenth and early twentieth century, as well as some idiosyncratic views and practices of his own. I have also described the basics of his psychological work and his theory of emotions. In this section, I will argue that his project incorporates his feminist values in such a way that we can see him as pursuing a project of feminist science.

3.1 Background: The Role of Values in Science

The history of feminist philosophy of science, feminist science criticism, and feminist science projects is complex, but is often told starting with the growing numbers of women joining academic science in the mid-twentieth century or the relationship between women scientists and the women's liberation movement of the 1960s and 1970s. I will follow Anderson (SEP, §5) in briefly describing a common pattern in feminist interventions into science, before describing a few of the key approaches to the role of values in science.

Feminist science criticism often begins amongst practicing scientists, and takes the form of identifying sexist, androcentric biases and identifying them as a cause of error or limitation of the existing scientific methods, theories, and evidence. Feminist science critics operating in this mode are engaged with what @Kourany:2010 calls the "methodological approach," which points to the ways in which androcentric, sexist science is bad science on its own criteria. Feminist science criticism might focus on exclusion of women from science, applications of science that are harmful to women, accepted theories that ignore gender or women, the role of masculine and feminine cognitive styles and the cognitive loss of using only the former, and the role of gender bias in framing questions for research and conceptual schemes for articulating theories. As historians and philosophers of science become involved, and feminist science critics from within the field become more sophisticated, we tend to see a move from regarding bias as error, to seeing certain biases (namely, nonsexist and feminist bias) as a resource for better science. We also see feminist scientists moving from criticism of existing science towards the development of new projects that are based on or incorporate feminist values. As a result, philosophy of science moves from considering feminist critiques of science as sexist and biased to accounts of the potentially beneficial role of values in science.

The most basic move available for philosophers of science is to see values like sexism and feminism not as bias or error, but as limiting perspectives that may generate different approaches to science. The move then is to encourage pluralism, and to manage the social incorporation of different value-perspectives in a productive way. This is the approach of @Longino:1990;@Longino:2002. Another approach would be a sort of broad holism, according to which empirical claims,

theoretical claims, and values all form a web of belief that is modified in the face of new experience to remain coherent [White:1981;Nelson:1990]. A third approach is to manage the inductive risk faced by scientists with value judgments, i.e., to focus on the consequences of error and demand very strict standards when the cost of false positive errors is high, and accept relatively looser standards when the cost of false negative errors is high [rudner1953scientist;Douglas:2009]. Another is to regard the ethical and epistemic goals of science to be jointly necessary—scientific progress requires better justification and more beneficent social consequences [Kourany:2010]. These are, of course, only some of the many views that feminist and other philosophers of science have articulated about the role of values in science.

I will now show different examples of the ways in which Marston's is a feminist science project that exemplifies various approaches to considering the role of values in science.

3.2 Marston's Critiques of Sexist Psychologists

One clear way in which Marston fits into the feminist science tradition comes in his critique of, and attempt to provide an alternative to, the mainstream traditions of Freudian psychoanalysis and Watsonian behaviorism. Marston's critique of previous psychological theorists springs from his line about "the backbone of literature" being transplanted into psychology. This leading idea clearly follows from his thoroughgoing opposition to a kind of essentialism about the status quo—Marston everywhere opposes the idea that because something is a certain way in our society, that it is natural, normal, healthy, or necessary that it be so. He thus goes out of his way to critique theories which take on a large part of the status quo.

That Freud and Freudian psychoanalysis have a sexist strain is a well-known problem, and there are many classic feminist critiques of Freud, from Beauvoir to Butler (though many feminists have reworked psychoanalytic ideas into a basis for feminist thought). The basic outlines of the Freudian account of the psychology of women, from penis envy to the various natural inferiorities of women, is openly sexist. Furthermore, Freudians have tended to be obsessed with sexist and heteronormative defenses of traditional gender roles and sexuality, as against the so-called "perversion" of "homosexuality." In his screed against comic books, the Freudian psychiatrist Fredric Wertham focuses on what he finds problematic in the way that comics like *Wonder Woman* depict women:

They do not work. They are not homemakers. They do not bring up a family. Mother-love is entirely absent. Even when Wonder Woman adopts a girl there are Lesbian overtones. . . In no other literature for children has the image of womanhood been so degraded. (Wertham 234; see quotes in Lepore 269)

Lesbian overtones and failures as homemakers and mothers are psychologically detrimental themes, claims Wertham, because they teach the opposite of normal, healthy womanhood. Wertham's sexism and traditionalism are entirely representative of the Freudian tradition.

Marston's critique of Freudian psychoanalysis emphasized Freud's focus on *conflict* as a driving factor of human psychology:

On the whole, we may characterize psycho-analysis as a system of thought which assumes a continuous state of bodily conflict between the vitalistic-type causes, having their origin in the libido or in consciousness itself, and the mechanistic-type causes springing from environmental stimuli. (ENP 22)

Recall how fundamental it is to Marston's view that the fundamental forces of psychology are those that govern a *healthy* mind, and furthermore, that a state of *conflict* was a temporary episode of necessary engagement with a hostile environment, whereas permanent conflict was a sign of dysfunction. Healthy people work toward a state of pleasant harmony with their environment; Freud assumes an unhealthy, abnormal mind as the default state. As Marston et al. gloss the view in *Integrative Psychology*, "They call the life energy the Libido. The Libido is continually fighting an antagonistic environment for self-expression." (IP 40). Marston is also concerned with the failure of the psychoanalysts to make serious contact with "body mechanisms" (IP 40). Again, they fail to meet at basic standard for psychological theorizing adopted by Marston, that of providing neurological foundations for psychological categories.

Much has been made by commentators on Marston of the BDSM ring of his categories of primary emotions—domination, inducement, submission, and compliance—as well as the appearance of such themes in his popular works such as the Wonder Woman comics, and not wholly without reason. These have even been called "Freudian images," which is odd, considering the discussion above.⁷ But to leave the analysis there is too simplistic. Marston explicitly cautions against an over-sexualized interpretation of his view (and simultaneously takes an implicit swipe at the Freudians):

The identification of love emotion with sex is responsible, in a large degree, for the social taboos which occidental civilizations place on love. To regard love as an emotion the expression of which is facilitated by sex differences of body structure is wholesome. But to identify love emotion with sex characteristics in general, especially

⁷Bryan D. Dietrich describes Marston's Wonder Woman as "the strangest set of Freudian images comics had ever endured" ("Queen of Pentacles: Archetyping Wonder Woman"). This seems to me to be a result of very superficial engagement with Marston's body of work.

those of the male leads to a most unfortunate lack of understanding of love. . . (ENP 287; Cf. quotation in Walowitz, 64).⁸

Marston objects strenuously to “identifying love with sex”(ibid.), which shows that we should not be too quick to read his claims about love, much less the more basic concepts such as the primary emotions, in an overly sexual fashion.

The sexism in behaviorism is less prominent or well known. But here is founder John B. Watson writing in the *Nation*:

When a woman is a militant suffragist the chances are, shall we say, a hundred to one that her sex life is not well adjusted? . . . Most of the terrible women one must meet, women with the blatant views and voices, women who have to be noticed, who shoulder one about, who can't take life quietly, belong to this large percentage of women who have never made a sex adjustment. (Watson, *The Nation* 125(3235): 10. Cf Lepore p. 110)⁹

Watson attacks suffragists and women who have their own opinions, implies that their problem is that they aren't well-adjusted sexually (a common sexist trope going back a long time), and implies that they should be quiet, speak when spoken to, and take the life that is given to them. Similarly, B.F. Skinner has come in for feminist criticism, especially in the implicit sexism found in his behaviorist utopia, *Walden Two*.¹⁰

Marston objects to behaviorism on two main grounds. First, in limiting the scope of science to human stimulus-response behavior and excluding consciousness, the behaviorists give up on the proper subject matter of psychology. Marston is contemptuous of this move: “If Watson should succeed in this bob-tailing of psychology, he would have talked himself out of a job”(ENP 19). Furthermore, this attempt to bracket consciousness is a cheat, Marston argues, because it just amounts to skipping from the first cause (“environmental stimulus”) in a long causal chain to the last (“bodily behaviour”), leaving “unbridgable gaps” in the explanation (ENP 66). Again, Marston mocks the move: “What a world of psychological trouble they think they are saving themselves!”(ibid.). Lastly, Watson wants to have his cake and eat it, too. According to Marston, Watson defends a full environmental determinism about behavior. And yet, “Almost in

⁸See also Marston's discussion of theories of infant sexuality amongst the psychoanalysts (ENP 349-350), nearly dripping with disdain not only at the oversexualizing but the evidential insecurity of their views.

⁹Though Watson's sentiment and language here are grossly sexist, the overall message of Watson's piece (which Lepore apparently misses, perhaps because she quotes from a secondary source rather than seeking out the original article) is that equality for women is a worthwhile and possible goal, and one best executed by appropriate education (or rather, conditioning) from infancy.

¹⁰Skinner's work mainly comes after Marston, but he is nonetheless an interesting point of reference, because he is often regarded as the most sophisticated and last great behaviorist, and because he explicitly represents the society of *Walden Two* as egalitarian.

the next paragraph. . . Watson attempts to show how the human race can throw off its thralldom [sic] to religious and social convention and other environmentally determined influences”(ENP 20-1). But the behaviorist view lacks the resources such intentional change would require; such change would have to come from human thought and consciousness, which Watson rules out. If Watson’s view were right, “such dreams for human self-regulation would be sheer madness”(ENP 21). Not even the behaviorist can really accept behaviorism, in the end.

Note that Marston doesn’t just call out these approaches for having sexist overtones or implications. His main style of argument is that these theories are scientifically inadequate.¹¹

Not only can we regard Marston here as a sort of feminist science critic, but we can see him as an example of the idea that doing feminist science amounts to uncovering and overcoming androcentric and sexist bias or of Longino’s argument that adopting new perspectives, ones that explicitly reject the status quo, may generate fruitful alternative methods and theories. Marston himself did not theorize the role of values or politics in science, but he comes close insofar as he suggests that he is more objective because he is better able to distance himself from the status quo than his predecessors and contemporaries. Given how little regard we now hold psychoanalytic and behaviorist approaches, as well as the striking similarities between Marston and some contemporary approaches, it seems like psychology at the time could have benefitted significantly as a field from taking Marston more seriously.

3.3 Love over Appetite

Marston describes the normal relationship between appetite and love as follows:

The normal relationship consists of complete adaptation of appetite to love. Any life which is both successful and happy must adapt its successes to its happiness. Certain types of individuals who habitually attempt to adapt happiness to success ultimately fail in both. (ENP 381)

This is because, “Love is a giving, and not a taking; a feeding, and not an eating; an altruistic alliance with the loved one, and not a selfish conflict with a ‘sex object’”(ENP 382). While love is altruistic, it is by no means self-sacrificing; submission to the loved one increases, rather than decreases, the flourishing of the person:

But a human being or animal in order to submit to and serve the need of the loved one must become more healthily alive than before. Any deterioration or dimunition [sic] of the active creatress [one engaged in

¹¹Mention here that much of this work is due to Byrne, via her Columbia thesis.

active creation, e.g., a mother during pregnancy] injures or diminishes her creation by a corresponding amount. Thus it is that complete adaptation of appetite to love is maximally efficacious, even from the point of view of enlargement of the lover. Adaptation of appetite to love cannot become self sacrificial so long as love is actually in control. Only when the reversed relationship of adaptation of love to appetite creeps in, does any emotional conflict appear between love purposes and appetitive needs. (ENP 382)

To some extent, the relationship between love and appetite is like the relationship between compliance and domination or inducement and submission. The normal movement is from appetite to love, and appetite must be “adapted to” love, i.e., the functioning of appetite-emotion needs to be controlled by and instrumental to the operation of love-emotion. Love adapted to appetite is a particularly harmful abnormal emotion; it is also one that Marston finds disturbingly widespread.

Love in its controlling relationship to appetite, especially in its role in creation-emotions, is thus the normal emotion of primary importance. This is reflected in its sublime pleasantness:

The conscious characteristic of this successive blending between passive and active love is unmistakable to anyone who has once experienced it, and seems to be identical in men and women. It is exquisitely pleasant, subtle, and delicate, yet, at its height, love is ecstatically intense and pervasive, completely blotting out all other emotions from consciousness for the time being (ENP 340).

Love’s primacy is also reflected in its unequivocal health-promoting effects. Thus, normal love emotions are the most important to psycho-emotional health; they must be given highest value by individuals; and as we shall see below, love emotions must be promoted by society.

How does the primacy of love connect with feminist values? Throughout his work (both scientific and popular), Marston frequently connects the love emotions with women and with femininity. While both men and women are equally capable of love emotions, enjoy and need them equally, love is connected with the traditionally and stereotypically feminine, while appetite, domination, and force are connected with masculine. In making love primary to appetite, Marston thus makes the feminine primary to the masculine, as he understands it. And while both men and women need and experience love, Marston says that women have a more important role to play with respect to love: “[Women] have much more of what it takes to love. . . women are the primary carriers of this great force”(“Women: Servants for Civilization” (1942)). Love is necessary not only to make us healthy, but to save the world from patriarchal society’s violence and selfishness.

3.4 Women and Love Leadership

As we've seen, a normal or healthy emotional life is dependent on love, on love's primacy over appetite in particular. And love is a emotional complex that involves inducement and submission; active love (captivation) requires an actively submitting (passive love / passionate) partner: "Active love requires that the person captured must be a willing, wholly submissive captive" (ENP 293). This means that love emotions require an inducing and a submitting party. The partner in a love relationship whose role emphasizes active love, Marston terms a "love leader." Thus, emotional normalcy requires being in a relationship with a love leader who has "organic mechanisms" for "active love," i.e., who is capable of inducement-driven captivation-love. A healthy emotional life requires passion towards and thus submission to a love leader.

As mentioned above, love is more closely associated with women and femininity. Women are the "primary carriers" of love. This is, in part, because they are more capable, physiologically, of active love, and thus of love leadership. This is a repeated theme in later sections of *Emotions of Normal People* as well as much of Marston's popular writing: "women, as a sex, are many times better equipped to assume emotional leadership than are males" (ENP 258-9), because of their superior development in inducement and love. On the other hand, "male love leadership is virtually impossible. . . a man's body is not designed for active love, and does not, therefore, keep him sufficiently love stimulated to control his overly developed appetite (ENP 393-4). While it is true that Marston remains, to some degree, a biological essentialist about gendered traits, his account of those traits is only loosely tied to traditional stereotypes, while his valuation of those traits turns the stereotypes on their heads.

Thus, Marston argues for a complete reversal of our attitudes about the strength and status of women:

Women have been regarded conventionally, for thousands of years, as the weaker sex. This almost universally recognized concept of woman's weakness has included not only physical inferiority, but also a weakness in emotional power in relationships with males. No concept of women's emotional status could be more completely erroneous. (ENP 258)

Women, not men, are the more capable leaders, the emotionally stronger sex, because of their capability for inducement and active love.

3.5 Emotional Normalcy and Women's Rights

Marston's conception of emotional normalcy via female love leadership is in many ways problematic, from a contemporary feminist point of view. It is essentialist, focuses on difference rather than equality, is gynocentric and matriarchal.

Nonetheless, his view reflects recognizable forms of feminism from Marston's day: the rhetoric of the moral superiority of the "feminine spirit" that arose in nineteenth century suffrage movements and was carried on by Margaret Sanger and the matriarchal utopias of Inez Haynes Gillmore and Charlotte Perkins Gilman. Furthermore, while Marston's approach is problematic in its ultimate aims, its practical and political recommendations look less problematic.

According to Marston, there are four criteria for suitable love leaders. First, the already mentioned capacity for active love. Second, "sufficient appetitive power for self-support"—love leaders must be self-sufficient and not dependent on those that would submit to them. Third, they must be knowledgeable about emotions and psychology. Fourth, they must have "sufficient practical knowledge of existing social and economic institutions to be able to adapt the necessary measures of social reorganization"—they must have the knowledge and ability to participate in political processes and effect social change. Marston's evaluation of the current situation is pessimistic: "These four requirements probably cannot be met by anyone in the world to-day." But with suitable social and educational change, love leaders could be found, though, as discussed above, "The only possible candidates for love leader training... are women"(ENP 394). The necessary changes, the preconditions of love leadership and thus healthy people and healthy society, are increased self-sufficiency, education, and political power for women, a program that feminists of any stripe could get behind.

So far, I have argued that Marston's psychological work proceeded in dialogue with his feminist values in a way that was epistemically and ethically virtuous and which exemplifies accounts from philosophers of science of feminist science and values in science. In the next section, I will discuss aspects of Marston's views that are less easily accommodated by most philosophers of science.

4 Using Psychology for Social Reform: Lessons from Marston

Marston went beyond incorporating values into his scientific work; he also used his value-laden science to advise the public and try to bring about social reform and cultural change. The basic idea is already laid out in his final chapter of *The Emotions of Normal People*, entitled "Emotional Re-education," where he lays out a broad program of social reform centered on training love leaders and teaching others to submit to them. He pursues this project in popular writings, consulting work, and last through popular fiction, film, and comics.

4.1 Background: The Role of Science in Values, Politics, and Culture

The literature on values in science is well-developed, thanks to many decades of work on the topic. The question of the role of science in values has been relatively less well developed. While there have been a few radical moral naturalists who insist that moral facts can be derived from scientific facts,¹² it is probably a minority view. What's more, there has been relatively little interaction between philosophers of science and ethicists on the question. Ethicists worry about the relation of ethics to "nature," while philosophers of science haven't much to say about how the scientific process might alter ethics, values, and culture. Philosophers of science have recently been very interested in the impact of science on policymaking, but this interest is primarily focused on how scientists *inform* policy; the engines of social and political change, though, are politics and the public.

One view which explicitly considers the role that scientific theory and evidence might play in altering our values is the holist view that takes theory, evidence, and value to be mutual parts of a web of belief, that is altered in the face of new experience. Morton White, for example, is concerned about mixed inferences of the following sort:

1. One ought not to break a promise.
2. Bob promised me yesterday that he would come to the party.
3. Bob did not come to the party.
4. Therefore, Bob did something he ought not have done.

According to White, if we feel strongly inclined to reject the conclusion (4), then we may reject either the ethical premises (1), the factual premises (2-3), or the logical connections that license the inference. On the other hand, if we feel strongly about (1-3) and the form of the inference, we are obligated to accept the conclusion (4). And so moral reasons can lead us to reject factual (or scientific) claims, and new factual (or scientific) knowledge can lead us to make ethical or moral claims (when we learn (3), we can judge (4) to be the case). This is a cartoonishly simple example, but it demonstrates that the scientific and the ethical are bound up for this sort of holist in such a way that permits the results of science to have an impact on our values and social practices. This sort of view has been developed in a more explicitly feminist direction by Lynn Hankinson-Nelson (@@??).

Elizabeth @Anderson:2004 provides another account of what she calls "the bidirectional influence of facts and values"(11). In considering the question of

¹²And even then, moral naturalists tend instead to defend some more nuanced view; those who are willing to make a baldfaced claim that morals can be *derived* from science are more often those like Sam Harris in *The Moral Landscape*, who are just confused about what it is they are doing.

whether values in science might lead to wishful thinking, or “operate to drive inquiry to a predetermined conclusion”(ibid.), she argues that we need to ensure that value judgments are made on the basis of evidence produced by inquiry, rather than being fixed dogmatically in advance. Only by focusing on what it takes for their to be evidence *for* value judgments can we ensure a legitimate role for values in science, according to Anderson. In her case study on feminist research on divorce, she argues that social scientists can contribute to answering such value-laden questions as, “Are children better off if parents who want a divorce stay together?”(18).

Work like Marston’s pushes us to think about the role that science plays in values, society, politics, and culture, especially when that science is itself clearly value-laden. Our current discussion doesn’t focus enough on *these* roles. Whether, ultimately, work of the sort Marston pursues is legitimate, is an open question. His approach pushes us to consider it further.

4.2 The Program of Emotional Reeducation

Marston’s idea of training for love leadership, originally developed in the context of a theory of emotions and psycho-emotional health, became for Marston an ambitious program of social reform and emotional re-education, aimed at the psycho-emotional health of society as a whole. I have already indicated the basic outlines of the program above. Healthy lives require love at the center, and loving relationships require a love leader with a highly developed capacity for active love. Only (a subset of) women have that capacity, and they are (or were, in Marston’s time) generally incapable of serving as love leaders because in the current social conditions they lacked the knowledge and the social and material conditions of independence that is prerequisite for love leadership. Thus, Marston reckons his own society highly unhealthy, conducive to psychological abnormality. He proposes, at the conclusion of *Emotions of Normal People*, a radical program of “Emotional Re-Education” that requires not only political, material, and intellectual rights and independence for women, but also educating everyone to become or to follow love leaders.

Marston was conscious of the radical nature of his proposal. He thus prefaces the chapter with a discussion of the difference between social convention and psychological normalcy. He chides his fellow psychologists and social scientists for failing to provide an account of what he calls the “normal human being” apart from a statistical account:

A bold psychiatrist, not so long ago, frankly stated that if a young girl attended a school where a majority of other girls smoked and drank, she would be eligible for psychiatric examination if she refused also to smoke and drink. I take it that the eminent doctor did not mean to suggest smoking and drinking as a test of social submission to girl friends, but rather as an emphatic laying down of the rule that

average behavior of a given group constitutes a *proper standard* by which the normalcy of any member of the group may be scientifically measured. No principle for study and improvement of the individual could be more pernicious than this. (ENP 389. emphasis mine)

Perhaps it is because of this common confusion between average and proper behavior that what Marston calls “normalcy” we tend to think of in terms of “health.” Without adopting these terms Marston decisively rejects this sort of thinking. For him, psycho-emotional normalcy involves organic stability, efficiency of function, and pleasantness, whereas abnormality involves instability, breakdown of function, and unpleasantness. There is no necessary connection to what most people do or expect:

The only practical emotional re-education consists in teaching people that there is a norm of psycho-neural behavior, not dependent in any way upon what their neighbors are doing, or upon what they think their neighbors want them to do. People must be taught that the love parts of themselves, which they have come to regard as abnormal, are completely normal. More than this, people must be taught ultimately, that love (*real* love, not “sex appetite”), constitutes, in the human organism, the ultimate end of all activity, and that to gain this end appetite emotion must, first, last, and always be adapted to love. (ENP 391)

This “norm of psycho-neural behavior” derives not from statistical averages, social expectations, or traditional teachings, but from neurobiology, experimental studies of psychology and behavior, and empirically-supported psychological theorizing. In other words, Marston proposes radically revisionary social norms on the basis of his scientific research. And though Marston did not theorize the role of values in science, we should add that such social norms should be based on science that is guided by values, such as feminist values, that encourage scientists to question the status quo and attain a greater degree of objectivity.

4.3 From Academic Psychologist to Popularizer

Marston was tragically forced out of academia. First and foremost, this was probably a result of his nonconformist lifestyle, as Lepore’s uncovering of his letters of “recommendation” seems to show. His failure to gain recognition for the lie detector test in the courts and the accusations of fraud in his business dealings (later dismissed) surely didn’t help. Even while an academic, Marston was seriously interested in popular work and the public role of psychology. After giving up on his academic career, he pursued popular writing and consulting full-time. In every case, he was trying to find new avenues to begin the project of emotional reeducation.

Marston's popular writings can be seen as a psychologist's contributions to the increasingly popular genre of self-help books in the 1930's—compare the publication dates of Marston's *You can be popular* (1936) and *Try Living* (1937) with Carnegie's *How to Win Friends and Influence People* (1936) and Hill's *Think and Grow Rich* (1937). In a series of magazine articles for publications like *Reader's Digest* and *Cosmopolitan*, in interviews written by Olive Byrne for *Family Circle* magazine (under her pseudonym "Olive Richard"), and in books like *You can be popular*, *Try Living*, and *March On!* (which include some of Marston's earlier magazine articles), Marston applied his psychological and emotional theories, and above all his program of emotional reeducation, to the problems that concerned the popular consciousness.

Try Living is full of banal bromides about laughing off adversity, living in the present, seizing opportunity, the power of positive thinking, and so on, but it also applies many of the distinctive ideas of Marston's psychology as advice for living happily. Even the very goal of living harkens back to Marston's opposition to appetite as a governing principle: "the result to seek is happiness, not success"(10). The most distinctive applications of his psychological views come in the discussions of love (especially in chapter 6, "When You Love, You Live") and of social convention and conformity (especially in chapters 9-10, "Walking Backward is Precarious" and "They Say—Let Them Say!").

Love for Marston is opposed to appetite; it is built on a fundamental alliance of self and stimulus. As he puts it in *Try Living*, "*Loving* is giving yourself to someone else"(12), an altruistic act incompatible with expectations of reward, of quid pro quo. And it falls apart when appetite interferes:

The explanation of all these love failures is quite obvious. The people concerned discarded love the moment it interfered with self-gratification. Love is a giving, not a taking. We love those to whom we give; not those who give to us. . . . And when one's own attitude changes from giving to grabbing one's feeling changes correspondingly from love to selfish antagonism. (99)

Marston describes the case of Elise and Horton F. (111-3), who had lived together before marriage happily in a "perpetual honeymoon," when both of them were working. After marriage, Elise became a homemaker, and their relationship started to fall apart. Marston's advice to Elise was to start working again at her old job. It worked! Love was much easier to attain when Elise did not depend on Horton for her subsistence: "Dominant demand is the antagonist of the love attitude of giving"(111). And it is just such dominance and demand that serves to perpetuate a patriarchal society, according to his earlier work.

Love is essential to the goal of living a happy, healthy life: "Love is practical because it brings harmony and happiness. . . . Love is essential to health, mental and physical"(95). And it turns out, according to Marston's estimates based on cases, most of us don't really know how to love, so we are unhealthy and

unhappy: we are not emotionally normal people. It is, he says, “far and away the most serious psychological problem in the world”(96). It is this problem that Marston is attempting to address in his various post-academic pursuits, from popularizing, to consulting, to creating pop culture, in order to enact the program of emotional reeducation.

Likewise, Marston describes the dangers of bowing to social convention and custom in one’s thinking and behavior; rejecting custom and public opinion is of course a necessary condition of achieving emotional reeducation. Marston appeals to science explicitly in this connection: “There is little justification, in short, for many of the ancient, outworn, scientifically disproved rules of behavior which millions of modern men and women unthinkingly bow down to”(180). And science not only shows us that tradition is wrong, but its effect in opposing convention should be wholly beneficial:

Social conventions are admittedly of the past—a situation which is rationalized by the argument that it is not safe to change them too rapidly. The facts of psychology and sociology do not support this argument. Researches all show that intelligent adaptation of social and moral standards to increased knowledge of human nature results always in betterment of humanity. . . . The principle of accepting any rule of behavior simply because your ancestors behaved that way is definitely wrong. (180)

Along the way, Marston points to many absurd conventions of the past, to shake our confidence in our current customs. And of course, in his day and today, patriarchy remains a deep custom in need of shaking.

4.4 “The World’s First Consulting Psychologist”

Throughout his career, Marston’s engaged in work that was a little bit outside of the purview of an ordinary experimental psychologist. He liked to style himself “The World’s First Consulting Psychology,” in reference to Sherlock Holmes (Lepore, @@). While working at Tufts, he started a clinic for students with “adjustment problems” (Lepore 112). In his clinic, Marston seems to have mainly promoted ideas from his experimental and theoretical work on “emotional normalcy” and from his popular writings on the importance of having fun and enjoying life. (Lepore describes a Wonder Woman story where Wonder Woman starts a series of Fun Clinics across the country to teach such lessons, Lepore 112-3.)¹³ Marston would continue to consult with patients intermittently throughout his life.

¹³Marston first met Olive Byrne in his class on Experimental Psychology. He referred her to his clinic when he discovered she was depressed and possibly suicidal. Then she became his research assistant (Lepore 112-3). Later she became his lover.

Marston's two most significant consulting jobs dealt explicitly for popular media. First, he consulted for Universal Pictures. Then, he consulted for DC Comics. As Lepore recounts, in July of 1928, just as Marston was looking for work after having been blacklisted from academic work, Carl Laemmle, head of Universal Studios, posted a wanted ad for a "practical psychologist. . . a *mental showman*" to analyze film content and predict how the public would react. Marston was perfect for the job, given his background in screenwriting and his interests in psychology of film that he had shared with his teacher, Munsterberg.

On being hired by Universal, Marston made it clear that he would be applying his psychological and social views on emotions and relationships to make films "psychologically sound":

A motion picture should be true to life. . . If a picture portrays a false emotion it trains people seeing it to react abnormally. It is a false emotion which shows man as the leader and dictator in a love affair. Woman should be shown as the leader every time. (Qtd. in Lepore, 136)

Marston convinced Universal to hire his friend and fellow psychologist, Walter Pitkin, and together they wrote a book of advice for screenwriters, *The Art of Sound Pictures*. The book emphasized the importance of "erotic passion" in films; it contained practical advice for getting things past the censors, state-by-state; and it taught Marston's views on "the psychology of sex" (140). According to Lepore, Marston's work at Universal influenced films including *Show Boat* (1929), *The Charlatan* (1929), *All Quiet on the Western Front* (1930), and the classic horror films *Frankenstein* (1931), *Dracula* (1931), and *The Invisible Man* (1933). He also consulted for Paramount on *Dr. Jekyll and Mr. Hyde* (1931) (141). Marston couldn't keep his job in Hollywood,¹⁴ so he returned to New York (Lepore 141-2). He and Pitkin tried to start a motion picture company, but the stock market crash of 1929 dashed those plans.

Marston continued to look for ways to make money and apply his ideas. He continued to consult. In 1932, he wrote and published a novel, *Venus With Us: A Tale of the Caesar*, a kind of historical romance exemplifying his theories, without much success (Lepore 148-9). He offered to apply his experience at lie detection to the case of the Lindbergh baby kidnapping, though Charles Lindbergh apparently showed no interest (Lepore 150). Olive Byrne wrote a series of articles for *Family Circle* where she consulted with Marston over all manner of psychological matters (under the pen name, Olive Richard, and without revealing her connection to Marston).

In the midst of an uproar over superhero comics in 1940, Olive Byrne penned one of her *Family Circle* articles, interviewing Marston on the psychological effect of

¹⁴He was replaced at Universal by Leonarde Keeler, who won a patent for his polygraph lie detector test, based largely on Marston's research. Marston never tried to patent his lie detector test.

comics on children. Batman was a gun-toting maniac who had just been heavily revised to be anti-gun. Superman himself casually killed criminals and appeared to be something of a fascist (Lepore 183-4). Marston defended comics, especially Superman, as healthy exercises in wish fulfillment, and distinguished carefully between “sadism” and “exciting adventure” in their stories. Maxwell Charles Gaines, co-publisher of All-American Comics (sister published of National Allied Publications, which published Superman¹⁵), read Olive Byrne’s article. He hired Marston to consult for All-American. And while Marston offered Gaines plenty of advice based on his psychological theories, his most significant recommendations was that Gaines needed to publish a woman superhero.

4.5 Wonder Woman

And so we finally come to Marston’s lasting legacy: the creation of Wonder Woman, as well as seven years of writing Wonder Woman comics. It would be take another paper to explore in depth the different ways in which Wonder Woman exemplifies Marston’s psycho-emotional theories. There has been some discussion of this connection in the various histories of Wonder Woman and analyses of the early comics, by comics scholars, literary and cultural studies scholars, historians, and popular writers. Unfortunately, all to date have misunderstood the relationship in one way or another, mainly due to a superficial reading of Marston’s scientific work. I hope this paper will go some way to correct the latter so as to improve future analyses of the former. Briefly, then, I will discuss a few of the key connections between Marston’s scientific work and his Wonder Woman comics.

Gaines agreed to create Marston’s female superhero book, but only if Marston would write it. Marston wrote a script for “Suprema, the Wonder Woman.” Thankfully, his editor convinced him to cut it to just “Wonder Woman” (Lepore 188-9). Marston insisted on picking his own artist, and he made the odd choice (given the industry’s reliance on young talent at the time) of Harry G. Peter, who was in his sixties, and who had done suffragist illustrations in the 1910s (Lepore 190-4).

There are four connecting themes between Marston’s psychology and his Wonder Woman comics: (1) the prevalence of bondage imagery in the comics, (2) related

¹⁵The publishing history here is complicated. For instance, Lepore incorrectly claims that Gaines was “*Superman’s* publisher”(185). Gaines was co-published of All-American with Jack Liebowitz, who was co-owner of Detective Comics, Inc (later National Comics) along with Harry Donenfeld. To confuse the matter further, Donenfeld helped bankroll All-American and National (not All-American) published Superman comics, though National and All-American used each others’ characters frequently. Superman did not appear in a comic entitled *Superman* until 1942, but rather in National’s *Action Comics*. Both All-American and Detective / National published under the logo “Superman-DC” or “DC-Superman.” In the early ’40s, Gaines and Liebowitz seemed to have had a falling out, and the two companies stopped using each others characters, until Detective / National bought Gaines out in 1944. (@@ Source and clean up)

statements about “the pleasure of submission,” (3) consistent themes of the evils of male domination, and (4) an emphasis unique for its time in superhero comics on reforming criminals over retribution for their crimes. Each of these themes draws in different ways on Marston’s account of the four basic emotions, on his particular views about the nature of healthy, loving relationships, on his views about the capabilities of the sexes, and on his views of the origins of “abnormal” behavior (including criminality).

The amount of bondage imagery in the 1940s has been much remarked upon. Wonder Woman, her allies, and her enemies were often tied, chained, or otherwise bound. Tim Hanley shows that 27% (!) of panels from the first ten issues of *Wonder Woman* were bondage scenes (Hanley 2014, 46). Lepore points out that how common the theme of women in bondage was in the 1910’s and 1920’s, including publications by Margaret Sanger, and makes much of Harry Peter’s role in feminist illustration and Marston’s connection to Sanger. Noah Berlatsky takes bondage as one of the major themes in his book on the Marston/Peter comics; he catalogs comics theorists and historians like Douglas Wolk, Bradford Wright, and Richard Reynolds dismissing Marston’s claims to feminism on the basis of the prevalence of bondage in his comics. Berlatsky, following earlier work by Ben Saunders, argues that “there is no necessary contradiction between bondage and feminism”(18). Unfortunately, neither Berlatsky nor Saunders arrives at this conclusion by careful and accurate analysis of Marston’s own fundamental scientific and social views on the relation between the two.

Prior commentators have largely missed the fact that bondage scenes in the early Wonder Woman comics fall into two types: (1) examples of domination by a master or an evil mistress and (2) examples of playful submission to a loving mistress. In the former case, Wonder Woman often escapes from bondage or helps her compatriots to do so, in order to escape and overcome the evil dominator. Wonder Woman even plays bondage games with her Amazon sisters and her Holiday College proteges in order to help them all learn to better escape. In the vignette from “The Rubber Barons” at the beginning of this essay, Ivar Torgson is taught proper submission. Submission in this sense is not a state of conflict, but part of love, involving trust in and obedience to a mistress, and at a fundamental level, alliance between self and stimulus.

An important related theme seen in the comics is that submission is pleasurable. Recall that Torgson enjoyed his lessons in submission. Because it involves allied self and stimulus, on Marston’s account submission is *necessarily* pleasurable: “Under no possible conditions can true submission be unpleasant”(243). Submission is not to be confused with compliance, which does have an unpleasant component due to its essentially antagonistic nature. Compliance is paired with dominance, and submission is pair with inducement. It is striking how almost all prior scholars who talk about the relationship between Marston’s psychology and the Wonder Woman comics read standard BDSM ideas into Marston’s thought, understanding the major principles as domination and submission. They miss the fact that domination doesn’t produce submission, according to Marston,

it produces compliance, and submission isn't associated with antagonism or sadomasochism at all. Submission is a wholly pleasant emotion, induced by a love-leader with one's own interests at heart. And in the Wonder Woman comics, those who submit appropriately tend to *really* enjoy it.

Another key theme is evils of male domination. Again and again, calamity results from the desires of men to dominate or the misguided attempt by others to submit to domineering men. Marston's view is that men are unsuited to be love-leaders, because they generally lack the capacity for active love that the female body provides. Instead, they lead by domination. Figure 4 shows a woman bemoaning her fate, "Submitting to a cruel husband's domination has ruined my life." Wonder Woman counsels her to become strong and independent, so she needn't feel pressure to be ruled by domination.



Figure 4: ... A Cruel Husband's Domination...

Lastly, Marston's comics have a very different approach to dealing with criminals that is common in the superhero genre. At the best of times, the hero delivers the criminals to the police with the idea that they will be put in jail, never to bother society again. At the worst of times, the hero wreaks vengeance on the criminal, doing violence to them or even callously killing them. Wonder Woman's approach is different. For Marston, criminality, like all abnormal behavior, is a result of emotional maladjustment. Perhaps their appetite has run wild, their desire to dominate out of all proportion with the emotions that should control it. But emotional normalcy can be taught, as Wonder Woman seeks to teach it.

Wonder Woman helps Elva with Torgson not just out of concern for Elva but also because she hopes it will help bring an end to criminality. The Amazons of Paradise Island also run Reform Island (or sometimes, Transformation Island), where the most obstinate criminals, though the help of the magical Venus Girdle (which works much the same as the Magic Lasso), are taught submission. Rather than leave the criminals she fights in the hands of the justice system in Man's World, Wonder Woman often brings them to Reform Island herself. Some of the villains so reformed, such as the Baroness Paula von Gunther, actually become Wonder Woman's allies.

Through Wonder Woman, Marston found a way to apply his psychological theories toward the emotional reeducation of society. The medium was at the height of its popularity, and Wonder Woman was one of the most successful characters out there. Her stories appeared in at least three separate titles. In issue after issue, story after story, Wonder Woman taught strength and independence for women, the evils of male domination, the pleasure of submission, and the ideals of female love-leadership.

5 Conclusion

I have argued that Marston presents a rich case for feminist history and philosophy of science and for the bidirectional influences of science and values. Not only does Marston's scientific and popular work exemplify the legitimate roles that values may play in scientific research, but it also challenges us to think about the roles that science does and should play in values, ethics, culture, and social life. Marston's use of science in society goes beyond science advising and even advocacy to the application of value-laden science to ameliorate social ills. Accounting for whether, when, and why such applications are acceptable and desirable is a pressing task for philosophers of science.