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Geoffrey C. Bunn

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The lie detector, *Wonder Woman* and liberty: the life and work of William Moulton Marston

GEOFFREY C. BUNN

INTRODUCTION

In their inspiring discussion of science popularization and science in popular culture, Roger Cooter and Stephen Pumfrey criticized the history of science for its ignorance of ‘the low drama and the high art of science’s diffusion and modes of popular production and reproduction’ (Cooter and Pumfrey, 1994: 237). ‘[S]urprisingly little has been written on science generally in popular culture,’ they asserted, ‘past or present.’ Although they provocatively speculated that coffee houses, comic books, and chemistry sets might yet provide historians with refreshing data pertaining to the making of scientific knowledge, it is sobering indeed to learn that even the most obvious mechanisms for the transmission of scientific knowledge – the popular press, radio and television – remain ‘shrouded in obscurity’. The authors attributed this regrettable state of affairs to the relegation of popular science to a sphere of intellectual inauthenticity, ‘a place where professional status for *homo academicus* has been difficult to accrue’ (Cooter and Pumfrey, 1994: 246).

Most of Cooter and Pumfrey’s discussion was devoted to criticizing the most pervasive analytic model for understanding the popularization of science. The theoretical inelegance of the diffusionist model, they argued, was a function of its guiding heuristic that science can be unproblematically divided into two separate spheres of activity. Popular science, the model assumes, can be regarded as nothing more than the ‘watered-down’,

derivative, and corrupted form of a pure, original, and authentic science. Thus as Celia Kitzinger (1990) has persuasively argued with respect to the 'rhetoric of pseudoscience', the analytic of popularization serves to reinforce norms of value-free science and to 'reproduce the very positivist-empiricist discourse we want to challenge' (Kitzinger, 1990: 75).

In order to meet this objection, Cooter and Pumfrey (1994: 251) propose replacing the dichotomous model of élite versus popular culture with a dynamic, interactionist model that emphasizes a process of translation and enrollment of knowledge and practitioners. Not only can popular culture 'generate its own natural knowledge which differs from and may even oppose élite science', but it can also encompass natural knowledge that may take on very different meanings from those intended by its popularizers (Cooter and Pumfrey, 1994: 249). To encourage the further deployment of the interactionist model of popular science, the authors suggest that, first, science studies might become 'responsive to a greater plurality of the sites for the making and reproduction of scientific knowledge', and, second, might focus attention 'away from texts and towards a greater plurality of signifiers of scientific activity' (Cooter and Pumfrey, 1994: 254, 255).

The ambition of the present paper is to embrace Cooter and Pumfrey's challenge to confront 'the politics of the popular'. To this end it describes and analyzes the life and work of the American psychologist William Moulton Marston (1893–1947). Virtually unknown today, Marston left two significant legacies for American popular culture. While he was only one of many who claimed to have invented the infamous lie detector, he was nevertheless its most enthusiastic advocate (Bunn, 1996). Unlike the lie detector, however, his other contribution has gone on to attain international (if not cosmological) approval. In 1941 Marston created another icon of American justice: the female comic book superhero *Wonder Woman*.

During the 1920s, Marston devoted himself to developing his academic career. He conducted laboratory studies on the psychophysiology of emotion, wrote philosophical articles on consciousness, materialism, and vitalism, and taught psychology at various universities. During the 1930s he became a consulting psychologist, wrote popular psychology articles for magazines like *Ladies' Home Journal* and *Esquire*, and gave radio talks on psychology. By the end of the decade he had written a novel, three works of popular psychology, and a lively account of his experiences with the lie detector. Preoccupied during the 1940s with writing the scripts for *Wonder Woman*, he nevertheless found time to co-author a biography of an early vaudeville pioneer.¹

Throughout his career, Marston consistently disregarded the apparent boundaries between academic and popular psychology, between science and values, and between the legitimate and the illegitimate. Capable of participating in both élite and popular culture, he had the sensibility of what has

been called the 'cultural amphibian' (Cooter and Pumfrey, 1994: 251). Adept at using the mass media to promote himself and his ideas, in some ways he was simply extending a tradition promoted by his mentor, Hugo Münsterberg. Both men had shared interests in the physiological detection of deception, the psychology of film, and, above all, popularizing psychology.² But for using the mass media to inform the public about psychology, the two were rewarded for their efforts by being labeled intellectual charlatans by their respective academic contemporaries.

In their informative article 'The Rise and Fall of Hugo Münsterberg', Jutta and Lothar Spillmann concluded that the German-American philosopher 'left no legitimate intellectual heir' (Spillmann and Spillmann, 1993: 334). On this point they concur with E. G. Boring, who declared that 'Münsterberg's influence died with him' (Boring, 1950: 543). Both assessments can be challenged on the grounds that they privilege academic psychology at the expense of popular psychology. Boring's claim that 'Münsterberg was too original; his energetic mind went on at once from experimental to still newer psychologies', however, can serve as a useful description of Marston too (Boring, 1950: 428). Describing him as Münsterberg's 'illegitimate heir' would no doubt partly account for Marston's relegation to historical obscurity. But as this article will try to demonstrate, the attempt to demarcate 'legitimate' academic psychology from 'illegitimate' popular psychology is extremely problematic.

Although Marston made a transition from professional academician to earnest populist, he maintained his faith in psychology as a force for good throughout his career. From his early work in the detection of deception, through the period in the late 1930s when he was the resident psychologist of *Family Circle* magazine, to the construction of *Wonder Woman's* cosmos, his activities were invariably informed by a zealous psychological expertise. From the comic book to the scientific text he offered advice and issued exhortations in a tireless mission to nurture the psychic well-being of his various audiences.

Like many of his contemporaries, Marston was deeply committed to psychology's liberationist project. By the time he was writing the scripts for *Wonder Woman*, he had concluded that the principal vehicle for sexual, social, and political freedom was the binary category of 'dominance-submission'. Although his fascination with the category had developed during his early work in the psychological laboratory, it was neither an empirical discovery, nor one derived from philosophical argument. As the following analysis of the discursive adventures of the category will attempt to demonstrate, although Marston's fictional creations and popular psychology emerged from his academic concerns, his academic work in turn was ultimately meaningful only in terms of values derived from the broader culture. The very concepts which structured Marston's scientific enterprise were rendered

intelligible by their political connotation, social significance, and sexual innuendo.

‘CHAINED OR BOUND, OR MASKED’

In September 1943, an infantry soldier wrote a candid letter to a ‘Mr. Charles Moulton’, the writer of the *Wonder Woman* comic book. Acknowledging the unusual subject-matter of the stories, but attributing his liking of them to his own peculiar dispositions, the staff sergeant was curious to discover the source of the author’s inspiration:

I am one of those odd, perhaps unfortunate men who derive an extreme erotic pleasure from the mere thought of a beautiful girl, chained or bound, or masked, or wearing extreme high-heels or high-laced boots, – in fact, any sort of constriction or strain whatsoever. Your tales of *Wonder Woman* have fascinated me on account of this queer ‘twist’ in my psychological make-up. . . .

Have you the same interest in bonds and fetters that I have [?] Have you studied such implements of confinement as you picture and write about [?] Have you actual references to such items as the ‘Brank’, the leather mask, or the wide iron collar from Tibet, or the Greek ankle manacle? Or do you just ‘dream up’ these things?³

‘[I]f you have experienced the same sensation as I have from actually applying these devices to a beautiful girl,’ the correspondent continued, ‘you’ll understand exactly what I mean.’

Well acquainted with deception and masquerade himself, Charles Moulton indeed understood exactly what the soldier meant. ‘Charles Moulton’ was the pseudonym of William Moulton Marston, the well-known Harvard-trained psychologist. The name was a hybrid of Marston’s and his publisher’s middle names. Charley Gaines, the president of All-American Comics, had forwarded the soldier’s unsettling letter to ‘Doc’ Marston with the suggestion that the two men discuss its contents. ‘This is one of the things I’ve been afraid of’, he wrote, ‘without quite being able to put my finger on it.’⁴ The infantryman, however, had no doubts about the comic’s chief fascination: it was full of titillating images of women being ‘chained or bound, or masked’ (see Figure 3). Should they have to defend themselves against charges of sadism (which they often did), Marston and Gaines could always reiterate the sergeant’s claim that the sado-masochistic features of the comic appealed only to an eccentric minority of their readership. ‘Believe me, my interest is not just that of another curiosity seeker,’ the soldier wrote, ‘it is much more than that to me. It is a part of my life, and a very necessary part, too.’⁵ Although they conceded that the comic depicted too much bondage, committing themselves to reducing

'the use of chains by at least 50 to 75%', Marston and Gaines had no intention of 'interfering with the excitement of the story or the sales of the books'.⁶ And the sales were phenomenal. By the third issue alone, *Wonder Woman* was selling half a million copies (Le Boutillier, 1943: 66).

Marston was well aware that *Wonder Woman* titillated the boys as much as she inspired the girls. Witnessing 'Dr. Psycho' fastening *Wonder Woman's* spirit to a wall with bands of 'psycho-electric magnetism' while imprisoning her body in a cage was meant to be exciting for everyone.⁷ But for Marston, the themes of dominance and submission were not simply crude devices to increase the circulation of the comic. He did not consider *Wonder Woman's* lugubrious motifs to be sadistic or oppressive at all in fact. Quite the reverse; they were essential components of an ingenuous and passionately held vision for female emancipation. *Wonder Woman* was not only a response to some of the social changes effected by the disruptions of the Second World War, but she was also the embodiment of a philosophy of liberation developed during a 20-year career in academic and popular psychology. Marston's interest in the liberationist potential of dominance and submission, however, had initially developed during his early work in experimental psychology and the detection of deception.

THE LIE DETECTOR

Invited by William James to establish a psychological laboratory at Harvard University, Hugo Münsterberg had approached the task with his customary enthusiasm. He was a colourful and energetic Bostonian character, not averse to courting public controversy by promoting various important social and political causes. Nor was he dissuaded from writing mass circulation popular psychology articles by his colleagues who condescendingly dismissed it as 'yellow psychology' (Spillmann and Spillmann, 1993: 329). The German émigré had an impressively broad spectrum of interests – psychotherapy, pedagogy, philosophy, aesthetics, mysticism, and cultural psychology – but it was the detection of deception that one of his undergraduate students, William Moulton Marston, found most fascinating. The ambitious young psychologist would extend and develop Münsterberg's scientific lie detection research programme, and would do so in a manner reminiscent of his teacher's exuberant style.

Having received an LL B in 1918 and a PhD three years later, Marston immediately set about manufacturing his reputation as the 'inventor of the lie detector'.⁸ In May 1921, the *Boston Sunday Advertiser* reported on his achievements to date:

William Moulton Marston, Boston lawyer-scientist, inventor of the psychological lie-detector, which he put forward in 1913, and has since

greatly improved, has already sprinkled the way of the transgressor with thorns from Massachusetts to California. No matter how accomplished at ordinary deception a man may be, he cannot hope to deceive Marston's apparatus any more than a woman can humbug a weighing machine by lacing tightly and dressing in black. (Marston, 1938: 49)

Marston was still claiming credit for the invention 20 years later. Writing in the *Harvard Class of 1915 25th Anniversary Report* he told his fellow former students that he 'had the luck to discover the so-called Marston Deception Test, better known as The Lie Detector' while researching the physical symptoms of deception.⁹ 'But the remarkable thing is that he discovered his "Lie Detector" while still an undergraduate', his entry in the *Encyclopedia of American Biography* boasted in 1937, 'while all the big psychologists of the world had been trying to get a practical test for deception for the last fifty years.'¹⁰ Having performed experiments with the instrument (Marston, 1917), and after testing it on suspected spies during the First World War, in 1923 Marston unsuccessfully attempted to get the lie detector admitted as evidence in a court of law.¹¹

During the early 1920s Marston devoted himself to empirical research on the detection of deception and the measurement of systolic blood pressure (Marston, 1920; 1921; 1923; 1924a; 1924b; 1925). In 1924 he travelled to New York City to work with the National Committee for Mental Hygiene, and then to Texas, where he analyzed 'every prisoner, male and female, in the state penitentiaries' according to his theory of the emotions.¹² The latter half of the decade saw him develop his theoretical ideas. He advanced an unusual 'psychonic theory of consciousness', promoted materialism and vitalism with equal vigour, and speculated on the relationship between 'primary colours and primary emotions' (Marston, 1926; 1927a-d; 1928b). This productive period culminated in his first book-length study, *Emotions of Normal People* (Marston, 1928a). 'There isn't much of interest in the rest of my story', he told the Harvard alumni in a tone of uncharacteristic modesty. 'I scratched up a living in various dull ways, teaching at Columbia, New York University, Tufts, and so on.'¹³

But he was keen to mention one other achievement. In 1925 he had become 'a consulting psychologist – a new sort of creature who seems to combine the advisory functions of the old-time pastor and country doctor'.¹⁴ Recognizing that society's burgeoning reliance upon 'engineers of the human soul' (Rose, 1992) was as intimidating as it was liberating, Marston couched his description of the new professional in familiar, homely terms. Not only did the consulting psychologist embody the nurturing, undogmatic sensibility of the traditional parson, but he also possessed the integrity and common sense of the rural physician. This hybrid 'new sort of creature' thus performed two jobs: he cared for the soul and guarded the body.

Would YOU Dare Take These Tests?

The Neglected Wife and Her Roving Husband



1 The Neglected Wife and Her Roving Husband. The wife is neglected and the husband is roving. The wife is neglected and the husband is roving.

Real Life Stories From a Psychologist's Files

For the field of crime, the "lie detector" has entered the field of love. The machine has been used to solve marital problems, to discover the cause of domestic quarrels, and to determine the truthfulness of statements made by lovers. The machine has been used to solve marital problems, to discover the cause of domestic quarrels, and to determine the truthfulness of statements made by lovers.

The Case of the Boy and the Girl Who Were to Love, but Were Engaged to Others



2 The Case of the Boy and the Girl Who Were to Love, but Were Engaged to Others. The boy and girl were engaged to others, but they were in love.



3 The Boy and the Girl Who Were to Love, but Were Engaged to Others. The boy and girl were engaged to others, but they were in love.



4 The Boy and the Girl Who Were to Love, but Were Engaged to Others. The boy and girl were engaged to others, but they were in love.



5 The Boy and the Girl Who Were to Love, but Were Engaged to Others. The boy and girl were engaged to others, but they were in love.



6 The Boy and the Girl Who Were to Love, but Were Engaged to Others. The boy and girl were engaged to others, but they were in love.

Figure 1 'From the field of crime, the "lie detector" has entered the field of love' (*Look*, 6 December 1938: 16–17). Marston advocated using the lie detector to solve 'marital or other domestic problems'.

Marston himself personified this dual identity of physician/priest. In 1938 he appeared in a *Look* magazine photostory attempting to resolve marital difficulties with his lie detector.¹⁵ (See Figure 1.) Not only did the machine discover that 'the neglected wife and her roving husband' still harboured some affection for each other, but it also revealed that a young couple were in love, despite being engaged to other people. Once the 'disinterested truth-finder' had diagnosed the cause of the symptoms, the consulting psychologist was able to confer his blessings on the unions. Throughout his career, Marston consistently integrated the two domains of science and morality because he believed, as did many of his contemporaries, that a scientific knowledge of the natural order provided psychology with the authority to preach about the moral order.

'BLONDES, BRUNETTES AND RED-HEADS'

In 1928 Marston used his lie detector apparatus to investigate the emotional responses of 'blondes, brunettes and red-heads'.¹⁶ The *New York Times* was enthusiastic, if skeptical. 'Blondes Lose Out in Film Love Test' it proclaimed. 'Brunettes Far More Emotional. Psychologist Proves by Charts and Graphs. Theater a Laboratory.' 'By elaborate and allegedly delicate instruments', the



Figure 2 In 1928, at the Embassy Theatre in New York, Marston performed experiments on the personality traits of 'blondes, brunettes and red-heads' (Marston, 1929).

paper reported, 'and by the simpler expedient of holding hands, Dr. William Marston . . . proved yesterday in the presence of a staff of coy press agents, camera men, motion picture operators and columnists that brunettes react far more violently to amatory stimuli than blondes.' (See Figure 2.)

The Embassy Theatre was an appropriate setting for Marston's vaudevilian experiments. His technique involved strapping the women to his equipment and showing them emotive clips from movies such as *Flesh and the Devil* and *Love*, both of which, according to Marston, contained 'inducement' stimuli. 'Dominance' and 'submission' stimuli were provided by scenes of a boxer winning a fight, and a dancing girl, 'captive of Tibetan priests' (Marston, 1929: 76). 'The experiments more or less proved', said the *New York Times*, 'that brunettes enjoyed the thrill of pursuit, while blondes preferred the more passive enjoyment of being kissed.' The women involved in the tests were chorus girls from Broadway shows such as *Show Boat*, *Rio Rita* and *Rosalie*. No wonder 'the air was thick with euphemism': 'How can we be certain that the blondes are blondes?' asked one wag.

‘What good will these methods do?’ a cynic inquired, inspiring the response: ‘Must be for rakes and roués, eh?’ Debauchee or not, Marston affected an air of scientific composure throughout the riotous event, even managing to remain patient ‘with the jests, and the jeers and with the leers of the photographers’.

As well he might – his experimental technique of measuring an audience’s emotional reactions to movies soon attracted the attention of the movie industry itself. On Christmas Day 1928, a small notice in the *New York Times* theatre pages announced that Marston had been engaged by Carl Laemmle to direct Universal Pictures’ Public Service Bureau, ‘the idea being to apply psychology to all departments of the motion picture concern’.¹⁷ But while it had led to an exciting job opportunity, Marston’s interest in ‘blondes, brunettes and red-heads’ was neither opportunistic nor fickle. Ten years after his initial experiments, he was still promoting his theory of the relationship between hair colour and personality traits. In January 1939, the popular magazine *Look* asked its readers ‘How Smart are You About Blonds, Brunets, Red-Heads’.¹⁸ ‘Blond Betty Grable’s pride in showing her figure is a trait typical of fair-haired girls’, attested the caption below a photograph of the swimsuited starlet. Grappling with a Roman centurion in the play *The Warrior’s Husband*, Katharine Hepburn apparently ‘demonstrated some typical red-haired traits (aggressiveness and energy)’. While red-heads were brilliant but erratic, according to Marston, they were a ‘poor third’ when it came to popularity with the opposite sex. Blondes found ‘brunet men (who will dominate them) more interesting’.¹⁹

Marston was somewhat less extreme in his claims when he reported on his Embassy Theatre experiments to his scientific colleagues. All the same, he boldly concluded that ‘significant differences probably exist between the primary emotional responsiveness of blonde-haired, brunette-haired and red-haired people’. The latter group were ‘chiefly famed for their “temper” and for their unwillingness to yield to the leadership of others, traits which must depend upon extreme dominance and inducement responses and also upon lack of compliance and submission’ (Marston, 1929: 85). Marston had also discovered a correlation between emotional responsiveness and eye colour. ‘The complete blonde type’, for example, ‘with blonde hair and blue eyes, would apparently possess a type of personality characterized by unusually strong compliance emotion.’ While ‘[r]eds lead in both dominance and inducement, showing nearly three times as great total dominance response per subject as any other group’, ‘blue-eyed subjects showed a markedly greater reaction than did the brown-eyed subjects’ to compliance stimuli (Marston, 1929: 85–6). Dominance, compliance, inducement, and submission were clearly important categories for Marston. How did they come to feature so prominently in his psychological discourse?

THE PSYCHONIC THEORY OF CONSCIOUSNESS

Marston's first foray into psychological theory is an appropriate place to begin to answer this question. He opened his discussion of the 'psychonic theory of consciousness' with a criticism of Watsonian behaviourism (Marston, 1926). By imploring the discipline to focus solely on observable responses, thereby repudiating consciousness, the behaviourists had seriously limited psychology's professional project. The problem was that unlike the sciences of physics, chemistry, and biology, psychology had no serviceable 'matter unit', and it might therefore soon find itself 'out of a job' (Marston, 1926: 162). Alarmed at this prospect, Marston proposed a solution that would also reclaim consciousness for psychology. If neurology's matter unit was the neurone, then, by analogy, psychology's should be the *psychon*.

Although he mobilized neurology to oppose the reductive extremes of behaviourism, Marston was nevertheless dissatisfied with its account of consciousness. Neurology's feeble theories focused too much attention upon the neurone. Not only was it known that the same nerve trunks could produce different conscious experiences, but different neurones appeared to produce identical forms of consciousness (Marston, 1926: 161–2). Furthermore, most neurological phenomena were known to take place at the synaptic junction *between* neurones, and not within neurones themselves. In addition, nearly all neurological phenomena could be correlated with 'distinct representations among our "conscious" processes' (Marston, 1926: 163). The psychologist's primary objection to the neurone was that it could not account for conscious 'feelings of harmony' or 'conflict' which were themselves the products of 'facilitations and conflicts between impulses' (Marston, 1926: 164). Connected both to neurones on the one hand, and to other higher-level psychons on the other, the psychon's function was impulse modification: 'Whatever conduction of energy may occur across a psychon seems incidental to the psychon's major effect of impeding, regulating, and generally modifying that energy in the course of its passage' (Marston, 1926: 166). By positing the notion of the psychon, Marston was therefore able to argue that consciousness was an intrinsically oppositional process.

His dislike of neurone-based explanations of consciousness was ultimately based on a preference for one metaphor over another. Because the neurone theory implied that consciousness was a function of the sum total of nerve impulses travelling through the brain, the neurone was therefore merely a conduit for impulses. The psychon, however, was a site for impulse *conflict*. Instead of the metaphor of additive linearity (as favoured by neurology), Marston's preferred metaphor was therefore *diametric antagonism*. A psychonic impulse could provoke a cascade of opposition throughout the entire nervous system:

A relationship of conflict, for example, existing at some lower psychon, might, on this theory, at once set up an afferent impulse in a higher arc mechanism; which impulse, on reaching the cortex, might probably tend to evoke a motor response of inhibitory character directed toward resolving the lower level conflict stimulus. (Marston, 1926: 168)

Although he was attempting to distance himself from neurology, Marston's theory was nevertheless indebted to one of its key concepts: inhibition. As Roger Smith (1992a) has meticulously demonstrated, inhibition was an indispensable category for the specialities of neurology and physiology, and, to some extent, psychology too. The term's rich ambivalence not only rendered possible the transfer of meaning between science and the broader lay culture, but it also promised to integrate mind with brain, and thus psychology with physiology. The English physiologist C. S. Sherrington was a particularly important figure in this respect because he regarded inhibition as the category that would achieve 'the last and final integration' of physiology with psychology.²⁰ 'The whole quantitative grading of the operations of the spinal cord and brain', he wrote, 'appears to rest upon mutual interaction between the two central processes "excitation" and "inhibition", the one no less important than the other' (Smith, 1992a: 182). These antagonistic processes were thought to occur at the synapse.

Marston was indebted to Sherrington's theory. While the famous physiologist proposed that excitation-inhibition took place at the synapse, the aspiring psychologist suggested that a similar antagonistic principle must animate the psychon. This principle was consciousness incarnate. Sherrington had little to say about how the integration between physiology and psychology would be accomplished, and so Marston took up the challenge. If it was going to be taken seriously, psychology needed to 'postulate elementary behaviour units which may serve psychology precisely as the atom, the electron, and the proton have served chemistry' (Marston, King and Marston, 1931: xiv). Marston found inhibition's metaphoric structure immensely appealing, but considered its usefulness for psychology problematic. The principle that Marston claimed would preserve inhibition's binary oppositional metaphor, provide psychology with an elementary unit of behaviour, and promise to integrate the discipline's diverse subfields, was 'dominance-submission'.

DOMINANCE AND SUBMISSION

In his 1927 paper on 'primary emotions', Marston declared that 'the backbone of literature has been transplanted intact into psychology'. This was not

a good thing: 'it has proved pitifully inadequate; and . . . the whole structure of our recently christened "science" remains spineless in its logical organization, in consequence' (Marston, 1927d: 336). Particularly weakened as a result of this extreme literary surgery was the psychology of emotion. 'Fear', 'rage', and 'anger' were nothing more than nostalgic Victorian artefacts. Moreover, the theoretical explanation of emotion was flawed by an over-reliance on the outdated idea of sensation. In opposition to the James–Lange theory, apparently particularly guilty in this respect, Marston asserted that emotion was the effect of a *response* to a stimulus, and not the stimulus itself. What was required then was 'the formulation of tentative, basic, emotional response types defined in sufficiently specific terms' that would both furnish testable hypotheses and be 'free from the heritage of literary confusion' (Marston, 1927d: 343, 345). The four types of primary emotion or 'elementary unit response' that Marston claimed would revolutionize psychology were dominance, compliance, submission, and inducement.

Dominance was defined as 'a central release of additional motor energy directed toward dominating obstacles'. Compliance was 'taking an interest in environmental objects'. While submission was the 'free yielding of responses' to a stimulus, the purpose of inducement was to 'induce further submission from another individual' (Marston, 1927d: 349–59). It was important to note that the four primary emotions were not dependent either upon instincts or sensory perceptions, but rather were independent principles of 'integrative action'.

Although the four terms were deemed to have 'definite psychoneural properties', Marston was obliged to employ social and cultural tropes to explain them. This was particularly evident in his discussion of 'primary colours and primary emotions' (Marston, 1927c). The superior domination–submission axis was apparently associated with blue–yellow, while the inferior compliance–inducement axis was allied with green–red. Thus while yellow was the favourite colour of female subjects, male subjects preferred 'a bright, saturated blue'. There was a simple explanation for this: 'Males, as a sex, are unquestionably more dominant than women; while women, as a sex, appear to possess almost a monopoly of pure submissive emotion' (Marston, 1927c: 16). Although a cowardly man would typically be regarded as 'yellow', 'a woman in similar circumstances might only be referred to as "weak", since it seems to be unconsciously recognized that women live by emotional standards peculiar to themselves'. Marston was confident that the four primary emotions could explain the origins of culture too:

Yellow . . . has always been the imperial colour of the Chinese, a people whose upper classes have been civilized longer than any other existing nation. Moreover, it is commonly recognized by those most conversant with Chinese philosophies, social customs, art, and religion, that the

Chinese civilization has been built, primarily, upon an emotional response of submission. (Marston, 1927c: 16–17)

Civilization itself was thus a product of ‘primary emotion’.

Attempting to explain his theory, Marston accepted conventional definitions of behaviour, employed literary language, and rehearsed social and cultural stereotypes about sex and race. Green was associated with femininity, nature, harmony, and compliance; red with masculinity, ‘virility, love or social leadership’, anger and inducement. The psychologist was finding it impossible to avoid that which he had criticized others for. Dominance and submission appeared to possess no meanings other than those derived from culture and history.

Marston explored his elementary units more fully in *Emotions of Normal People* (1928) and *Integrative Psychology: A Study of Unit Response* (1931). Well over a third of his first book was devoted to the four primary emotions, the rest being an examination of ‘compound emotions’ like love and fear. But although his intention was to place the study of emotion on a solidly scientific basis, Marston habitually drew upon social situations to explicate his theory. In one study, a group of female students were asked if they enjoyed submitting to discipline and disciplining others at college initiation ‘baby party’ rituals. The young men were asked if they would ‘elect to be an unhappy master or a happy slave’ (Marston, 1928a: 305). ‘Passion emotion’, the psychologist concluded, ‘appears to be an extremely pleasant feeling of *being subjected and being made more and more helpless in the hands of an allied stimulus person of superior strength*’ (Marston, 1928a: 312–13; original emphasis). Marston found the slave metaphor useful to explain inducement too: ‘Beautiful show girls who merely stand around in the chorus are modern examples of the same passive inducement that the chained and garlanded slave girls of former days were trained to exercise’ (Marston, King and Marston, 1931: 57). Despite claiming that his ‘elementary units’ were rigorous scientific categories free of literary meaning, Marston was constantly forced to employ literary language to render them intelligible. Not only was he unable to prevent the political and sexual connotations of dominance and submission from emerging, but he even encouraged them.

Marston’s ambition to create a ‘psychological Esperanto’ (Marston, 1928a: 6) from terms like dominance and submission was thus somewhat naive. But while his theorizing might have been somewhat pedestrian, his philosophy inconsistent, and his experiments morally dubious, he nevertheless passionately believed that psychology was a force for good. But like so much of his work, his ideas about liberation were intimately related to his fascination with sex. From an epistemology that appeared merely to condone women’s inferior social position, Marston attempted to construct a psychology of freedom. Having discussed how the categories of dominance and

submission journeyed through his experimental and theoretical work, it is now appropriate to describe how Marston came to regard them as the quintessential vehicles for sexual, social, and political freedom.

‘A SORT OF AMAZONIAN MATRIARCHY’

Marston did not regard dominance and submission as essentialist masculine and feminine categories. In fact he thought it quite legitimate for men and women to adopt either dominant or submissive behaviours depending on the particular circumstances. If a woman remained unfulfilled in the arms of her male lover, then the man should curb his selfish desires for immediate gratification and submit to domination. The psychologist thus heartily endorsed the ‘admirable advice’ of various sexological authorities who recommended that wives should get on top of their husbands and ‘initiate all the movements of both parties’ (Marston, 1928a: 335). Marston’s own experimental evidence supported this role reversal, and showed that ‘*women prefer captivating men, and that men prefer to be captivated*’ (Marston, 1929: 82; original emphasis). While men seemed to have developed ‘more capacity for responding with emotions designed to take selfish advantage of persons and things than have women’, he concluded that ‘women’s erotic emotions which appear predominantly submissive actually consist, for the most part, of active inducement emotion’ (Marston, 1929: 83, 86).

Even in his putatively scientific work on the emotions, Marston unself-consciously proffered advice about sexual matters, and cheerfully recommended behaviours designed to effect personal change. ‘The only possible candidates for love leader training’, he wrote in the concluding ‘emotional reeducation’ chapter of his *Emotions of Normal People*, ‘are women’ (Marston, 1928a: 394). Women were beginning to develop ‘both the power and willingness to support themselves’, and they would soon acquire another ‘essential attribute to active love leadership, namely, appetitive self reliance’ (Marston, 1928a: 394–5). The ‘emotional re-educator’ should therefore focus his attention on women, in order to ‘offer emotional analyses of existing political and social methods and procedures’. A practical knowledge of such institutions

. . . should develop from woman’s increased dominance development, and from her consequent active participation in appetitive activities of all kinds. Women have already undertaken participation in public life, though not yet with satisfactory results, at least in America. (Marston, 1928a: 396)

Marston set about the task of liberating American women with typical bravado. He wrote his first inspirational psychology book, *You Can Be*

Popular, especially for them (Marston, 1936). Popularity was not necessarily a gift, he declared, it could be cultivated. But although popularity with men could be achieved by gaining 'more knowledge of human nature, more finesse, more self-discipline', there was one particularly important secret about the opposite sex that women should know: 'Men Don't Want Submission' (Marston, 1936: 34, 36). Every experienced woman only pretended to submit to men, 'while drawing them on to walk captive behind her chariot'. 'Playing slave' might well be 'a whole lot easier than playing conqueror', but it was ultimately self-defeating.

Marston's popular psychology was as enthralled with dominance and submission as his academic and experimental work had been. Once again, he found it impossible not to employ the themes of bondage, slavery, and imprisonment, even when promoting the idea of female liberation. This was particularly apparent in the case of his 1939 book *March On! Facing Life With Courage*. 'Life's greatest game' was about defying 'nature-ordained inferiority' and 'marching courageously forward toward true superiority' (Marston, 1939: 72). Battles waged by ancient Roman gladiators were nothing compared with the games '[y]ou and I are fighting, every day, for the growth of our eternal selves'. But 'the second fundamental game of life', Marston wrote in the chapter on 'Playing the Love Game', was breaking out of the 'egocentric prison' (Marston, 1939: 112). To achieve freedom, it was essential not to associate eroticism with immorality:

As a matter of fact erotic love is the emotional source of that all-important social trait, willing submission to other people, to their needs, their opinions, their manner of living and submission also to the leaders who govern the social group. The principal difference between a criminal and a good citizen is precisely this: the lawbreaker is a social rebel who cannot enjoy the experience of yielding his own will to someone else's, while the law-abiding citizen is a socially minded individual who enjoys submitting to others on a majority of occasions. (Marston, 1939: 130)

Not only was it pleasurable to submit to loving authority, but the process also produced good citizens – a fact that criminology should recognize. 'Without a sound foundation and training in "sex love",' the psychologist continued, 'no human being of either sex can possibly submit to any social control and like it' (Marston, 1939: 131). Ideally, the feeling should be mutual: 'submitting to others and inducing them to submit to you' were equally important processes (Marston, 1939: 143).

In a 1937 *New York Times* interview Marston predicted that 'within 100 years the country will see the beginning of a sort of Amazonian matriarchy'.²¹ Within 500 years 'a definite sex battle for supremacy' would occur, and after a millennium 'women would take over the rule of the country, politically and economically'.²² The newspaper reported that the psychologist's ideas about

female emancipation were related to his philosophy of 'live, love, laugh and be happy', the title of the first chapter of his latest inspirational work, *Try Living* (Marston, 1937). Because happiness was the female criterion for success, by promoting it psychology would be promoting women. Men on the other hand would eventually lose the 'sex battle for supremacy', because they adhered to the misguided doctrine of material success. But although his academic psychology and his popular psychology had both attempted to win the 'battle for womanhood',²³ Marston's most enduring contribution towards the creation of 'a sort of Amazonian matriarchy' was a comic book character.

WONDER WOMAN

The expansion of Marston's psychological mandate during the 1930s was made possible by his transition from academician to populist. Epitomizing the 'new sort of creature' of the consulting psychologist, he was happy pontificating about a wide variety of topics in mass circulation magazines such as *This Week*, *Cosmopolitan*, and *Good Housekeeping*. In the *Ladies' Home Journal* he claimed that 'Women can out-think men (if they want to)'; in *Reader's Digest* he urged everyone to 'try everything once'; and in *Family Circle* he presented evidence of extra-sensory perception.²⁴ In his capacity as resident psychologist of *Family Circle* magazine, Marston was asked what he thought of the comics, and if he considered their scenes of 'torture, kidnapping, sadism, and other cruel business' harmful to children.²⁵ Although he agreed that strips like *Dick Tracy* indeed encouraged juvenile violence, he argued that comics could also be a force for good. Depictions of actual torture were sadistic, but mere threats were not. 'When a lovely heroine is bound to the stake,' he said, 'comics followers are sure that rescue will arrive in the nick of time.'²⁶ The reader was not being taught to enjoy suffering because the 'bound or chained person does not suffer even embarrassment'. Although *Superman* exhibited two important national aspirations – 'to develop unbeatable national might, and to use this great power . . . to protect innocent, peace loving people' – the character had some flaws. 'It seemed to me, from a psychological angle,' he later reminisced, 'that the comics' worst offense was their blood-curdling masculinity. A male hero, at best, lacks the qualities of maternal love and tenderness which are as essential to a normal child as the breath of life' (Marston, 1944: 42). 'The obvious remedy' was to 'create a feminine character with all the strength of a Superman plus all the allure of a good and beautiful woman' (Marston, 1944: 42–3).

In many ways, Marston was the perfect designer of the first female comic book superhero. He had feminist ambitions, an enthusiastic, populist sensibility, and an expertise that lent credibility to the project. In February 1941,

he sent the first script of 'SUPREMA, THE WONDER WOMAN' to the editor of All-American Comics, Sheldon Mayer.²⁷ 'I fully believe that I am hitting a great movement now under way,' he wrote, 'the growth in power of women.' At least since the time of his early experiments on the emotions, Marston had encouraged this movement. But while *Wonder Woman* provided him with far more powerful opportunities to promote his ideas about feminine equality than psychology ever had, he nevertheless drew heavily on psychology for inspiration. The superheroine embodied many of the psychological themes Marston had developed throughout his career. But above all, *Wonder Woman* was informed by the meta-principle that had fascinated him for 20 years: dominance–submission.

Marston situated the Amazon community on 'Paradise Island', a 'land of love and beauty' where 'women rule supreme in harmony and happiness' (Fleisher, 1976: 143). Should a man set foot on the island, however, the Amazons must relinquish their birthright of eternal life and everlasting happiness. Not far from the communal utopia was 'Reform Island', a penal facility where the Amazons transformed 'through discipline and love, the bad character traits of women prisoners' (Fleisher, 1976: 176). Each prisoner was forced to wear a magic Venus girdle which had been designed to make the wearer enjoy living by peaceful principles until such time as she could 'submit to loving authority'. Thus while paradise was therefore made possible by the threat of discipline, female freedom was constantly haunted by the spectre of masculine power. (See Figure 3.)

The binary island home was not the only expression of the idea of freedom through submission. Having originally freed the Amazons from enslavement under Hercules, Aphrodite insisted they wear 'Bracelets of Submission', 'to teach . . . the folly of submitting to men's domination!' (Fleisher, 1976: 206). If a man were to chain the bracelets together, the wearer would immediately lose her special strength. Made of 'amazonium – the hardest metal known', the bracelets 'bind our strength to the service of love and beauty', explained Wonder Woman, 'and thus protect us from evil!' Should the bracelets be removed, an Amazon would become 'uncontrolled! . . . free to destroy like a man!' (Fleisher, 1976: 208). Because the Amazon universe as Marston conceived of it was therefore a place of female freedom that was ultimately dependent on the absence of men, it was a freedom defined by submission. Like the philosophy expounded by Wonder Woman herself, freedom was not an absolute quality but was rather subject to essential restrictions. *Wonder Woman* was therefore an expression of Marston's philosophy of freedom through servitude. As the title of one of his magazine articles made clear, women would attain freedom only if they became 'servants for civilization'.²⁸ The route to male freedom was through constraint too: because masculine power was destructive, it must be held in check by feminine 'love allure'. 'The world needs peace, security, an aristocracy of altruism,' Marston wrote, 'a



Figure 3 Like Wonder Woman herself, Marston was engaged in a 'Battle for Womanhood' (Marston, 1972). Dr Psycho, one of her most evil enemies, wanted to 'enslave the women of the world' (Fleisher, 1976: 149). Reproduced by kind permission of DC Comics. Wonder Woman is a trademark of DC Comics © 1972.*

new set of social values based upon what one individual can do for others and not upon what he can take away and keep for himself.²⁹

Women should not simply aim for equality with men, but should instead use their own particular charms to inspire society towards a non-masculine conception of freedom based on restricted liberty. If freedom was a product of discipline for Marston, then so was truth. Flexible as rope, 'but strong enough to hold Hercules!', Wonder Woman's 'Golden Lasso' was the most visible expression of this idea (Fleisher, 1976: 210). Anyone caught in the lasso found it impossible to lie. And because Wonder Woman used it to extract confessions and compel obedience, the golden lasso was of course nothing less than a lie detector.

'SEX ANTAGONISMS'

Because *Wonder Woman's* moral universe was structured between the two polarities of dominance and submission, it is not surprising that she was constantly being chained, imprisoned, tied up, handcuffed, and blindfolded. While such plot devices allowed Marston to construct interesting and entertaining situations to challenge Wonder Woman's ability and ingenuity,

they nevertheless also rendered visible his deeply held philosophy of freedom. Not everyone was happy with the comic strip's ethos, however. In February 1943, a member of the Superman DC comic magazines editorial advisory board complained about the comic's 'sadistic bits showing women chained, tortured, etc.'³⁰ Conceding that some efforts to reform had been made by the publishers, Josette Frank of the Child Study Association of America nevertheless eventually felt obliged to resign from the board, maintaining that 'it is the basic theme of the strip that is offensive, rather than its detail'.³¹ *Wonder Woman* was 'full of significant sex antagonisms and perversions', she protested, 'and countless other details too heavily symbolic to be purely accidental'.³² Annoyed, Marston feigned surprise: 'Frankly, I don't know what she means. Probably my basic idea of women fighting male dominance, cruelty, savagery and war-making with love control backed by force is what she means by "Sex antagonisms"'.³³ The impressions of another member of the committee, however, Professor W. W. D. Sones, 'confirmed those of Miss Frank that there was a considerable amount of chains and bonds. So much so that the bondage idea seemed to dominate the story'.³⁴ The Professor of Education was not impressed with Marston's argument: 'It is just such submission that he claims he wants to develop that makes dictator dominance possible. From the standpoint of social ideals, what we want in America and the world is cooperation and not submission.'³⁵

Marston was frustrated. He had devoted over 20 years to developing his psychological theory of freedom, and now that he was able to give it a wide audience, he was being accused of promoting sadism. He accepted that some of the comics indeed contained sadistic themes, but *Wonder Woman* was not one of them. And anyway, 'harmless erotic fantasies [were] . . . generally recognized as good for people'.³⁶ He responded to Professor Sones's criticisms in a five-page letter:

Wonder Woman breaks the bonds of those who are slaves to evil masters. But she doesn't leave the freed ones free to assert their own egos in uncontrolled self-gratification. Wonder Woman binds the victims again in *love chains* – that is, she makes them submit to a *loving* superior, a beneficent mistress or master, who in every case represents 'God', or Goodness, or Aphrodite, Goddess [*sic*] of Love and Beauty. Freedom usually goes through a stage, as in progressive education, where it becomes detrimental through lack of discipline.³⁷

Wonder Woman enjoyed submitting to 'loving superiors' because by doing so she would be teaching others the value of restraint. 'This, my dear friend,' wrote Marston to Gaines, 'is the one truly great contribution of my Wonder Woman strip to moral education of the young. The only hope for peace is to teach people who are full of pep and unbound force to *enjoy* being bound – *enjoy* submission to kind authority.'³⁸

Many of *Wonder Woman's* readers no doubt missed the subtleties of Marston's position. For the soldier who claimed a 'queer "twist" in my psychological make-up', the comic's chief attraction was fairly straightforward; he enjoyed *Wonder Woman* because he enjoyed tying up women. In the same way that Marston had been unable to prevent his scientific language from registering sexual and political meaning, he could likewise not prevent his comic from attracting those who discovered unsavoury meanings in it. As Cooter and Pumfrey have argued, popular science can indeed take on very different meanings from those intended by its popularizers (Cooter and Pumfrey, 1994: 249).

DISCUSSION

Wonder Woman first appeared in the November 1941 issue of *All-Star Comics* (Benton, 1989: 32). The following summer she starred in her own title, and by the end of the year was appearing in four different comics.³⁹ She was immensely popular. In 1944 she joined *Superman* and *Batman* in national newspaper syndication.⁴⁰ Although she continues to be commercially successful, the details of her creator's life are not widely known. A specialist comic book magazine recently described Marston as 'one of the most forgotten comic book pioneers in the industry' (Korkis, 1995: 46). This is surprising because, as this article has demonstrated, he had a fascinating career.

Marston was an enthusiastic advocate of the lie detector, a committed researcher and theorist, and a passionate purveyor of psychological advice. He attempted to give a lie detector test to the accused Lindbergh baby kidnapper, appeared in advertisements for Gillette razor blades with the instrument (see Figure 4), and gave radio talks advising listeners on such topics as how to 'obey that impulse'.⁴¹

Although his interests gradually shifted away from academic psychology to popular psychology, one particular principle obsessed him throughout his career: dominance–submission. It was an unusual foundation for a philosophy of liberation, but his attraction to the category was far from idiosyncratic. Hugo Münsterberg had devoted a chapter to submission in his 1915 text *Psychology General and Applied*,⁴² and between 1920 and 1935, the category appears to have become the second most important trait term used by personality psychology after extraversion–introversion (Parker, 1991: 161). Furthermore, dominance–submission was one of four traits assessed by the most widely used omnibus personality measure at the time, R. G. Bernreuter's *Personality Inventory* (Parker, 1991: 206–8).⁴³

Marston's fascination with dominance–submission had originated at the intersection of three related interests: his work on the detection of deception and the psycho-physiology of emotion, his reading of Sherrington's

LIE DETECTOR "TELLS ALL" ..

REVEALS STARTLING FACTS ABOUT RAZOR BLADES!

Hundreds of Men from All Walks of Life Take Amazing Tests that Disclose Important Truths about Shaving

WHAT are the facts about razor-blade quality? That's what Gillette wanted to know. And that's why Gillette retained Dr. William Moulton Marston, eminent psychologist and originator of the famous Lie Detector, to conduct scientific tests that reveal the whole truth. Truck drivers, bank presidents... men in every walk of life... take part in this investigation. Strapped to the Lie Detector... the same instrument used by police... these men shave while every reaction is measured and recorded.

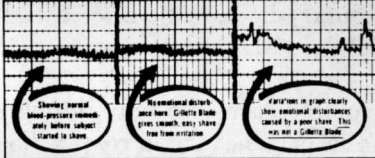


Dr. William Moulton Marston

Results Are Amazing
Now, men: here are the facts. The Gillette Blade is proved superior in every respect to various blades competitively tested. You get shaves that are (1) Easier (2) Faster (3) Free from emotional disturbances that can upset and irritate you for hours to come. Read the whole story. Weigh the evidence. Then see for yourself. Try the Gillette Blade and learn what a big difference it makes when you shave with a blade that's precision-built to fit your razor exactly.



ACTUAL RECORD OF ONE MAN'S SHAVE AS RECORDED BY LIE DETECTOR



1 OUT OF 18 MEN TESTED BY DR. MARSTON EXPRESS PREFERENCE FOR GILLETTE BLADES. Not knowing which blade in which each subject shaves one side of his face with a Gillette Blade... the other with a blade of competitive quality... while the lie detector accurately charts the reactions. In more than 100 of cases, the shaver chooses falling to the superior blade. At the same time, the lie detector proves this blade is far safer on the face.



DR. MARSTON PROVES CONCLUSIVELY that a Gillette Blade is superior to all other blades... The entire test of the investigation... the lie detector accurately charts the reactions... the shaver chooses falling to the superior blade... the lie detector proves this blade is far safer on the face.

ATTENTION! CONSUMER ORGANIZATIONS AND MEN EVERYWHERE
Dr. William M. Marston's scientific studies... have proven that the quality of a man's shave has a marked effect upon his mood and general attitude for hours to come. I cannot too strongly emphasize the psychological importance of this... **Real Shave's 3-Step Service**

Now Let Dr. Marston Give You the Benefit of His Surprising Investigation
In conducting exhaustive shaving tests for Gillette, I have discovered that the quality of a man's shave has a marked effect upon his mood and general attitude for hours to come. I cannot too strongly emphasize the psychological importance of this... **Real Shave's 3-Step Service**

Gillette Blades
PRECISION-MADE TO FIT YOUR GILLETTE RAZOR EXACTLY

Figure 4 'In conducting exhaustive shaving tests for Gillette I have discovered that the quality of a man's shave has a marked effect upon his mood and general attitude for hours to come' (*Life*, 21 November 1938: 65).

neuro-physiology, and his desire to reclaim for psychology the professionally and ontologically important idea of consciousness. Although like Sherington he looked forward to an integration of psychology with physiology, Marston did not think that inhibition would be able to consolidate the union. He found the term appealing, but argued that psychology needed its own 'fundamental matter unit'. Having suggested that 'the psychon' could fulfil this function, he was then able to propose the existence of four elementary principles of integrative action, or 'primary emotions'.

'Diametric antagonism' was the generative metaphor (Danziger, 1990) that governed Marston's discourse. It was an immensely fruitful meta-principle which produced a number of subsidiary binaries. The psychon, and therefore consciousness itself, was defined by this principle, as were the 'primary emotions'. Sexual relationships in turn were understood in terms of the dominance-submission and compliance-inducement pairs: blonde women liked to be dominated by brunet men; blue-eyed people reacted strongly to compliance stimuli; women only pretended to be submissive to men because, as experiments had shown, men preferred to be dominated. The binary could explain national and cultural characteristics like Nazi aggression or Chinese submissiveness. It also structured fictional civilizations like those depicted in *Wonder Woman's* Amazon cosmos, or Marston's novel, *Venus With Us: A Tale of the Caesar* (Marston, 1932). The freedom of Paradise Island was defined in opposition to the discipline of Reform Island, just as the Amazons were empowered by the threat of male dominance. Like the lie detector upon which it was modelled, *Wonder Woman's* 'Golden Lasso' produced truth – and by implication justice and freedom too – through coercion. The metaphor of diametric antagonism also informed Marston's self-description as a 'consulting psychologist'. A combination of the 'old-time pastor and country doctor', he offered liberating spiritual advice to the soul while simultaneously imposing scientific expertise on the body.

Because he thought that freedom could be achieved only through 'submission to loving authority', Marston's belief in the function of psychological knowledge was somewhat paradoxical. Thus although he proposed that female emancipation would follow from women's increased 'self-esteem', he argued that it was the job of the 'emotional re-educator' to effect such a change. 'In the many fields of industry,' he wrote in his account of the utility of his work on 'primary colours and primary emotions', 'colours of tools, work-shops, and illumination might be controlled in such a way as to stimulate efficient emotional attitudes toward different tasks, in a manner which no worker could consciously combat' (Marston, 1927c: 32). His letter to Professor Sones in 1943 had asserted that '[f]reedom usually goes through a stage, as in progressive education, where it becomes detrimental through lack of discipline'.⁴⁴ Fascinated by the role that psychology could play in promoting freedom, Marston nevertheless recognized that expertise had a despotic side.

Marston's work dramatizes what might be called psychology's paradoxical commitment to liberalism. According to Nikolas Rose, liberal governance 'embraces all strategies and schemes for the calculated administration of life, for "the conduct of conduct"' (Rose, 1993: 4). The efforts of 'the state' to govern conduct are supplemented by those of doctors, philanthropists, managers, psychologists, and others who are deeply involved in the attempt 'to act upon, shape [and] direct the actions and affairs of others in relation to

certain objectives' (Rose, 1993: 4). 'The ethical regime that we call freedom', in other words, is therefore 'a double edged achievement':

We have been freed from the arbitrary prescriptions of religious and political authorities, thus allowing a range of different answers to the question of how we should live. On the other hand, we have been bound into relationship with new authorities, which are more profoundly subjectifying because they appear to emanate from our individual desires to fulfil ourselves in our everyday lives, to craft our personalities, to discover who we really are. (Rose, 1993: 17)

Ethical doctrines such as psychology pose freedom in terms of identity through two linked processes. Interior practices of 'self-knowledge, self-interrogation and the liberation of an inner truth' complement external practices which shape 'the form or style in which one lives one's life' (Rose, 1993: 14). These 'psychologies of everyday life' are disseminated through the mass media and 'translate the enigmatic desires and dissatisfactions of the individual into precise ways of inspecting oneself, accounting for oneself and working upon oneself in order to realise one's potential, gain happiness and exercise one's autonomy' (Rose, 1993: 16). Because popular psychology is therefore deeply implicated in the processes by which cultural codes shape everyday life and construct ethical subjectivities, 'moral regulation' (Valverde, 1994) may prove to be a particularly valuable instrument with which to analyze its history.

In a similar manner, Roger Smith has convincingly argued that the chief fascinations of a term like 'inhibition' for the history of the human sciences are its regulatory effects within a 'discourse of order' (Smith, 1992b). The history of the use of the term, he maintains, has been 'a dialogue between the desire to exercise moral control and the description of natural control' (Smith, 1992a: 10). Although it appeared to describe a fundamental fact of biological organization, the term's potent utility was dependent upon a rich set of meanings derived from the broader sociolinguistic culture. Not only could the term mediate between mind and body, and between psychology and physiology, but it could also express commonalities 'between science and the everyday, and between values and facts' (Smith, 1992a: 17). This article has attempted to argue that Marston's work can be similarly incorporated into an historical project that attends 'to the meaning of words understood as relationships of reference and value within discourse' (Smith, 1992b: 237). A related ambition has been to accept Cooter and Pumfrey's challenge to scrutinize 'popular prose and non-scientific texts for (or as) signs of orthodox and unorthodox scientific authority', and to explore 'the careers of various scientific metaphors within popular writing and culture generally' (Cooter and Pumfrey, 1994: 255). Like inhibition's root metaphor of 'antagonism', Marston's dyadic concept of dominance-submission cannot be

regarded as an empirical discovery, but must be seen rather as a central component of a culture-bound discourse that naturalized relationships of action and power, and made descriptive and evaluative claims appear inevitable (Smith, 1992a: 274, 224).

Marston promoted psychological expertise in a number of different locations: the scientific laboratory, the army, the lawcourt, schools, prisons, the advertising and movie industries, newspapers, magazines, advertisements, comic books, and radio broadcasts. He personified what Nikolas Rose (1992) has described as the 'engineer of the human soul'. Psychological expertise is characterized by a process of heterogeneous bricolage: 'it amalgamates knowledges and techniques from different sources into a complex "know-how"' (Rose, 1992: 356). Disregarding the question of the truth of psychological knowledge, such an approach focuses instead on the effects of such knowledge. What becomes important are the ways in which expertise governs subjectivity by nurturing rationality, privacy, autonomy, and, above all, liberty.

Although this article has admittedly privileged the work of one exceptionally flamboyant American psychologist, its purpose has not been to celebrate his prescience, wisdom, or entrepreneurship. Instead, it has demonstrated how knowledges and practices can assemble around a generative binary category to form a discourse which attempts to cultivate individual freedom. While Marston was an unusually enthusiastic promotor of psychology as a solution for personal and sexual, and even social, national, and political, problems, his ambitions were not unique. Difficult as it is in the case of a character like Marston, this work has nevertheless attempted to avoid reinforcing 'associations between "popular" and "fringe"' (Cooter and Pumfrey, 1994: 245). Marston's fascination with sex for example, was typical of popular psychology at the time (Burnham, 1987: 98–9). His 'endocrine enthusiasm' – 'It's glands that give women three times as much emotional explosive urge as men'⁴⁵ – also allows us to locate him within a broader context of psychology's popularization during the 1920s and 1930s (Burnham, 1968).

What is interesting about an enterprise like Marston's is not so much that it is founded upon a 'moral project' (Richards, 1995), but rather that it is a mode of 'moral regulation' (Valverde, 1994). Popular psychology has practical consequences for the subjectivities of those it targets. This is not to say that popular psychology is actively imposed upon a passive audience by enterprising scientists. As Mariana Valverde and Lorna Weir have urged, scholars 'involved in researching popular movements have to keep in mind the dialectical interplay between rulers and ruled, regulation and resistance, and the internal contradictions within both rulers and ruled' (Valverde and Weir, 1988: 33). Popular psychology is rich terrain for further exploration precisely because, as Cooter and Pumfrey (1994) have argued, popular science is the product of negotiation between non-learned and élite actors. Inspired by this reconceptualization of popular psychology as regulation and

mediation, one possible project for the history of the human sciences might be to formulate questions about how popular psychology is received, transformed, developed, acted upon, and lived through by those it enrolls. Until recently, the history of psychology has been strangely reluctant to investigate that which has been such a pervasive influence on 20th-century liberal democratic society – the psychologies of everyday life.

NOTES

* Wonder Woman and all related indicia are trademarks of DC Comics © 1972. Used with permission. All rights reserved. The author would like to thank the anonymous reviewers for their most helpful critical comments on an earlier draft of this paper.

- 1 Marston and Feller (1943).
- 2 See Hale (1980) for a discussion of Münsterberg's career.
- 3 J. to C. Moulton [W. M. Marston], 9 Sept. 1943. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 4 M. C. Gaines to W. M. Marston, 14 Sept. 1943. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 5 J. to C. Moulton [W. M. Marston], 9 Sept. 1943. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 6 M. C. Gaines to W. M. Marston, 14 Sept. 1943. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 7 'Battle for Womanhood' in Marston (1972: 14).
- 8 Marston received an AB degree in 1915 from Harvard College. He then went to Harvard Law School before returning to Harvard University for his PhD.
- 9 'William Moulton Marston', *Harvard Class of 1915 25th Anniversary Report*, 1940: 480–2. Harvard University Archives, Pusey Library, Cambridge, MA 02138.
- 10 'Marston, William Moulton, Ph.D.', *Encyclopedia of American Biography*, new series, Vol. 7. New York and West Palm Beach, FL: The American Historical Society, 1937, pp. 22–5. Many thanks to Ben Harris for alerting me to this useful and entertaining source.
- 11 The rejection of the 'systolic blood pressure deception test' in the *Frye v. United States* case on the grounds of its insufficient acceptance among scientific authorities was a landmark ruling because it inadvertently established the legal criteria for the admissibility of scientific evidence. In 1979 the Kansas Supreme Court made the following assertion: 'The Frye test has been accepted as the standard in practically all of the courts of this country which have considered the question of the admissibility of new scientific evidence' (Starrs, 1982: 685).
- 12 'William Moulton Marston', *Harvard Class of 1915 25th Anniversary Report*, 1940: 480–2. Harvard University Archives, Pusey Library, Cambridge, MA 02138.
- 13 *ibid.*
- 14 *ibid.*
- 15 'Would YOU Dare Take These Tests?' *Look*, 6 Dec. 1938: 16–17.

- 16 'Blondes Lose Out in Film Love Test', *New York Times*, 31 Jan. 1928: 25.
- 17 'Psychology For Films', *New York Times*, 25 Dec. 1928: 31.
- 18 'How Smart are You About Blonds, Brunets, Red-Heads', *Look*, 3 Jan. 1939: 40–1.
- 19 *ibid.*: 40.
- 20 Although the title of Sherrington's 1932 Nobel Prize address was 'Inhibition as a Coordinative Factor', he had not discovered the concept, admitting that it had been 'anticipated' by Charles Bell in the 1820s (Smith, 1992a: 180–4).
- 21 'Marston Advises 3 L's For Success', *New York Times*, 11 Nov. 1937: 27.
- 22 *ibid.*
- 23 'Battle For Womanhood' was the title of a 1943 *Wonder Woman* episode (see Marston, 1972).
- 24 'Women can out-think men (if they want to)', *Ladies' Home Journal*, May 1944: 4–5. 'Try everything once', in T. Roosevelt, ed. (1940) *The Reader's Digest Reader*. New York: Doubleday, Doran, pp. 462–5. 'Has this ever happened to you?', *Family Circle*, 7 Feb. year unknown. Dunlap Papers, Archives for the History of American Psychology, University of Akron, OH 44325.
- 25 'Don't Laugh at the Comics', *Family Circle*, 25 Oct., year unknown. MSS 1618B, Smithsonian Institution Libraries, Washington, DC 20560.
- 26 *ibid.*
- 27 W. M. Marston to S. Mayer, 23 Feb. 1941. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 28 'Women: Servants For Civilization', publication unknown, Feb. 1942. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 29 *ibid.*
- 30 J. Frank to M. C. Gaines, 17 Feb. 1943. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 31 J. Frank to M. C. Gaines, 29 Jan. 1944. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 32 *ibid.*
- 33 W. M. Marston to M. C. Gaines, 1 Feb. 1944. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 34 W. W. D. Sones to M. C. Gaines, 15 Mar. 1943. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 35 *ibid.*
- 36 W. M. Marston to M. C. Gaines, 15 Sept. 1943. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560. In this letter Marston dismissed Gaines's concerns about the sergeant's letter of 9 Sept.: 'I have the good Sergeant's letter in which he expresses his enthusiasm over chains for women – so what? . . . you can't have a real woman character in any form of fiction without touching off a great many readers' erotic fantasies.'
- 37 W. M. Marston to W. W. D. Sones, 20 March 1943; original emphasis. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 38 W. M. Marston to M. C. Gaines, 20 Feb. 1943; original emphasis. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 39 *Wonder Woman* appeared in *All-Star Comics*, *Sensation Comics*, *Comic Cavalcade*, and *Wonder Woman* (Benton, 1989: 32–6).
- 40 'Wonder Woman Joins Superman–Batman in National Newspaper Syndication',

- Independent News* 1(3) (April 1944): 3. MSS 1618B, Smithsonian Institution Libraries, Washington, DC 20560.
- 41 Marston (1938: 81); 'Lie Detector "Tells All"', *Life*, 21 Nov. 1938: 65; 'Obey That Impulse', *Reader's Digest*, April 1941.
- 42 Münsterberg wrote: 'We may consider as such states of submission all attitudes and settings by which the individual limits and narrows his own mental life, his own ideas and feelings and volitions under the influence of other individuals. The submission may be automatic or voluntary' (Münsterberg, 1915: 254). With the exception of his replacing 'automatic' and 'voluntary' with 'passive' and 'active' respectively, Marston's definition of the term was almost identical to Münsterberg's (Marston, King and Marston, 1931: 57).
- 43 Submission was also a component of Gordon Allport's 1928 Ascendence-Submission Test (Parker, 1991: 207).
- 44 W. M. Marston to W. W. D. Sones, 20 March 1943. MSS 1619B, Smithsonian Institution Libraries, Washington, DC 20560.
- 45 W. M. Marston, 'Running wild without men', *Esquire*, Feb. 1936: 72.

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BIOGRAPHICAL NOTE

GEOFFREY C. BUNN is a graduate student in the History and Theory of Psychology at York University, Ontario. He is currently completing a doctoral dissertation on the history of the lie detector.

Address: Department of Psychology, York University, 4700 Keele Street, North York, Ontario M3J 1P3, Canada.
[email: gbunn@yorku.ca]