

# Musical Hypnosis: Sound and Selfhood from Mesmerism to Brainwashing

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**Summary.** Music has long been associated with trance states, but very little has been written about the modern western discussion of music as a form of hypnosis or ‘brainwashing’. However, from Mesmer’s use of the glass armonica to the supposed dangers of subliminal messages in heavy metal, the idea that music can overwhelm listeners’ self-control has been a recurrent theme. In particular, the concepts of automatic response and conditioned reflex have been the basis for a model of physiological psychology in which the self has been depicted as vulnerable to external stimuli such as music. This article will examine the discourse of hypnotic music from animal magnetism and the experimental hypnosis of the nineteenth century to the brainwashing panics since the Cold War, looking at the relationship between concerns about hypnotic music and the politics of the self and sexuality.

**Keywords:** Music; hypnosis; Charcot; brainwashing; mesmerism

Because of the direct physical character of hearing and the fact that one cannot close one’s ears, music has long provoked anxieties about personal autonomy. The feeling of ‘losing one’s self’ that is central to musical ecstasy (ἐκστασις—to stand outside oneself) can be an exhilarating escape from the confines of the ego, but can also be very disturbing, raising complex questions about the porous boundaries of the self and the ability of others to manipulate it. Many physicians, psychologists and critics have wondered whether its effects can go beyond the powerful group dynamics and behavioural changes related to music in the context of religious ritual and warfare and actually ‘hypnotise’ or ‘brainwash’ an audience.<sup>1</sup> Although most observers now follow French anthropologist Gilbert Rouget’s view that the relationship between music and hypnosis and trance is psycho-social rather than physiologically deterministic, over the past 200 years the idea of musical hypnosis has been the basis of a variety of discourses about music leading to involuntary hypnosis, robbing listeners of autonomy and making them sexually vulnerable.<sup>2</sup>

The modern (mostly) non-supernatural discussion of music as a hypnotic force goes back to the late eighteenth century, when the context shifted, in Henri Ellenberger’s

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<sup>1</sup>Gauld 1992; Forrest 1999; Ellenberger 1970; Waterfield 2002; Crabtree 1993; Hacking 1995; Aldridge

and Fachner 2006; Bourguignon 1976; Lex in d’Aquila *et al.* (eds) 1979.

<sup>2</sup>Rouget 1985.

words, from possession and exorcism to dynamic psychiatry.<sup>3</sup> By 1800 the combination of the development of Mesmer's theory of 'animal magnetism', new conceptions of the self, and the Romantic aesthetics of music created a discourse that portrayed musical mesmeric trances as a threat to the self and to sexual self-control. These associations with sensuality and a loss of self were to become constant themes in the debate on hypnotic music even as hypnotism emerged as a more mainstream part of science in the mid-nineteenth century. Crucially, hypnotism and hypnotic music came to play an important part in the emergence of a 'physiological psychology' that regarded the hypnotic state as an 'automatic' phenomenon akin to a physical reflex.<sup>4</sup> From the gongs and tuning forks used by Jean-Martin Charcot to induce hypnotic trances to Ivan Pavlov's use of bells to create conditioned reflexes, the idea of automatic responses to sound, physiologically determined and bypassing the conscious mind, have dominated the debate on musical hypnosis.<sup>5</sup> In this context, music was seen as a potential threat to a self that was susceptible to external stimuli and therefore as a danger to the self-control that was the basis of sanity for the individual and of order for society.

As this article will show, this scientific debate about the power of music to overwhelm self-control and leave the listener open to the sinister designs of the hypnotizing musician has proved highly influential in culture, literature and politics in a number of very different contexts. The first section of this paper will examine the role of music in Mesmerism and the experimental hypnotism of the nineteenth century, and its echoes in literature and music criticism. For many observers, the idea of musical hypnosis became the basis of a critique of music's dangers that had considerable resonance with wider concerns about the fragility of social and sexual discipline in a rapidly urbanising society.<sup>6</sup> The next section will consider twentieth-century debates on the concept of musical brainwashing, especially in the United States. This discourse drew on the Pavlovian theory of conditioned reflexes to create a scientific and popular discourse about the supposed threat to political and sexual self-control in the Cold War atmosphere of the 1950s and 1960s. After that I will examine the way that this Cold War debate in turn became the basis for the debate on music and 'backmasking' in the so-called Satanic Panic of the 1980s and 1990s, which expressed concerns about hypnotic media and social control in the context not of Communism but of the contemporary American 'Culture Wars'. Finally, I will consider more sceptical views of musical trance that might provide a better basis for an understanding of modern musical hypnosis than the reductive neurological approach adopted by many of those who have warned of music's mesmeric dangers.

### Hypnotic Music, Automatic Response and the Self

Music played an important role in animal magnetism, the techniques created from the 1770s by the German physician Franz Anton Mesmer that combined fixing patients with a literally mesmeric gaze and a theory of a universal fluid that could be manipulated to bring about health.<sup>7</sup> What would later come to be called hypnotism seems to have

<sup>3</sup>Rouget 1985; Gregory in Hargreaves and North (eds) 1997; Becker 2004; Ellenberger 1970; Hacking 1995.

<sup>4</sup>Daston in Woodward and Ash (eds) 1982.

<sup>5</sup>Pavlov 1928; Todes 2002.

<sup>6</sup>Nietzsche 1888; Barkhoff 1995; Kennaway 2010.

<sup>7</sup>See Darnton 1968; van Schlun 2007; Schott 1985; Winter 1998; Hadlock 2000a, pp. 42–66; Völkel 1979, pp. 118–39. He first came to public notice

been an significant part of Mesmer's treatments, but it was his French pupil de Puységur who coined the terms 'magnetic sleep' or 'artificial somnambulism' for the hypnotic state often achieved by animal magnetism. Mesmer regarded animal magnetism as a matter of 'sympathetic vibration' just as much as music, and argued that it could be communicated, propagated and reinforced by sounds.<sup>8</sup> Some contemporaries believed that the pianos, violins and harps, and especially the glass armonica that featured prominently in his treatments, were in fact responsible for many of Mesmer's triumphs.<sup>9</sup> The following decades provided many accounts of musical hallucinations experienced by mesmerised patients, mesmeric cures achieved with the aid of music and tales of tone-deaf patients developing miraculous musical talents while in a magnetic sleep.<sup>10</sup>

Despite these apparent successes, the suspicions of its power over the self and sexual inhibitions that would dominate discussions of hypnotic music were already apparent. The German writer and composer E. T. A Hoffmann, despite his fascination with uncanny states, expressed concern about animal magnetism.<sup>11</sup> His contemporary Hegel likewise articulated fears of involuntary trance states caused by mesmerism, writing that, 'one individual acts on another whose will is *weaker* and *less independent*. Therefore very powerful natures exercise the greatest power over weak ones, a power often so irresistible that the latter can be put into a magnetic trance by the former whether they wish it or not'.<sup>12</sup> The supposed ability of mesmeric music to overcome the will and make female listeners vulnerable to the immoral advances of the 'magnetiseur' was also a widespread concern.<sup>13</sup> Already in 1784 the French Royal Commission set up to investigate Mesmer's claims implicitly compared the mesmeric 'crisis' to an orgasm.<sup>14</sup> In the same decade, Mozart and da Ponte's opera *Così fan tutte* included a depiction of a mesmerist as a fraud and his technique as a means of seduction, and was followed by many other satires.<sup>15</sup>

These associations with sexual impropriety and illegitimate meddling with the self continued into the mid-nineteenth century, when, starting with James Braid in the 1840s, many physicians attempted to separate hypnotism from its semi-occult mesmerist past and to establish it as serious science.<sup>16</sup> Despite this move away from the more fanciful aspects of Mesmer's legacy, hypnotism continued to be linked with music. Musicians were believed to be especially open and vulnerable to the state, and many cases of those in a 'nervous sleep' displaying unexpected musical gifts were recorded.<sup>17</sup> More importantly, startling results were achieved using sound and music to hypnotise patients, which were generally explained in terms of the 'automatic' responses that could be provoked, raising important questions about the power of music over listeners. These automatic responses to sound seemed to undermine the whole idea of personal autonomy

after curing Marie Paradis of her blindness, at the price it seems of ruining her nerves and her piano technique. Evers 1991; Pattie 1979, pp. 29–31.

<sup>8</sup> 'Elle est communiquée, propagée et augmentée par le son'. Mesmer 1779, p. 78. See Kennaway 2010; Goldschmidt 1983.

<sup>9</sup> Polter 1934, p. 15. See also Franklin 1785, p. 23. Gallo and Finger 2000; Hadlock 2000a; Hyatt King 1945.

<sup>10</sup> Wirth 1836, p. 180; Kretschmar 1824, pp. 41–2; Spiritus 1819, pp. 83–4; Baehr and Kohlschütter 1843, p. ix.

<sup>11</sup> Hoffmann 1999, p. 106; Barkhoff 1995.

<sup>12</sup> Hegel 1971, pp. 116–7.

<sup>13</sup> See Wilson 1993, pp. 104–24; Anon. 1838; Crabtree 1993, pp. 73–76, 89–105.

<sup>14</sup> See Binet and Féré 1887, pp. 19–20.

<sup>15</sup> Steptoe 1986; Pattie 1994, pp. 11, 30–3. See Incbald 1789; G. F. 1790, p. 15.

<sup>16</sup> Braid 1843; Kaplan 1974.

<sup>17</sup> See Tuckey 1893; Pick 2000, pp. 124–6; Braid 1843, pp. 56–7.



**Fig. 1** A group of mesmerised French patients (1778/1784) have their treatment enhanced by the playing of a harpsichord and the singing of a monk.

and opened up the possibility of mental ‘contagion’ through music at a time when it was widely felt that emerging mass society threatened both individuality and order.

Anxiety about ‘automatic’ responses to music was closely related to broader fears about the effect of music on the nerves. The nervous system, with its automatic reflexes and its ineffable connection between physical stimulation and state of mind, was at the centre of the debate on music’s dangers. During the eighteenth century, music’s impact on the nerves was largely seen in the context of the refined nerves of sensibility, but by the early nineteenth century music had been incorporated into the medical critique of modern over-stimulation that had been developed by the likes of George Cheyne, S. A. D. Tissot and John Brown.<sup>18</sup> While many nineteenth-century medical critics of music lamented its supposed ability to directly cause pathologies of the nerves, others fretted about the inflaming effect on the imagination, especially in relation to sexuality, of musical nervous stimulation. Worries about musical hypnosis were in a sense an extension of these fears, going beyond over-stimulated nerves and imagination to a complete loss of autonomy.

The link between the hypnotic power of music and the nerves was underlined in the neurologist Jean-Martin Charcot’s experiments with hypnosis at the Salpêtrière in Paris later in the nineteenth century. He used gongs and tuning forks on patients to provoke cataleptic fits, one of his stages of hysterical hypnosis.<sup>19</sup> Other leading figures at the Salpêtrière, such as Paul Regnard and Paul Richer, Alfred Binet and Charles Féré, also used

<sup>18</sup>Kennaway 2010; Rousseau 2004; Vila 1998.

<sup>19</sup>For images, see Regnard 1887, pp. 263 and 260.

tuning fork, gongs and children's lullabies and recorded similar results.<sup>20</sup> They all assumed that the seizures were the consequence of an essentially automatic physiological nervous reaction from the patient to the stimuli, leaving the psyche out altogether. The only question Charcot considered open was whether the reaction related to the auditory nerve or the nervous system more generally. He described a typical experiment of this kind in the following words:

I have these two hysterics take a seat on the sound box of a large tuning fork. As soon as I set the fork vibrating, you can see that they fall into catalepsy. When we stop the vibrations, they fall into somnambulism. If we begin new vibrations with the tuning fork, the catalepsy reappears. Is this strange fact ... due to the excitation of auditory sensitivity, or that of sensitivity in general? We don't know.<sup>21</sup>

The actual nature of these events has been much disputed. Charcot himself categorised them as expressions of 'hystero-epilepsy', combining the link to hysteria that he saw as key in the aetiology of the condition with the analogies to epileptic fits obvious in the cataleptic trances. The twentieth-century British physician Macdonald Critchley considered cases that have some similarities to these as examples of 'musicogenic epilepsy'.<sup>22</sup> Others, such as Albert Moll, have argued that psychological factors such as suggestion were more important than any direct physiological impact of 'the loud noise of a gong' at the Salpêtrière.<sup>23</sup> Hypnosis there certainly had a powerful unacknowledged theatrical character. The same hysterical women were used repeatedly in Charcot's popular demonstrations, and many have argued that some form of more or less conscious action by the women concerned was involved, which the Belgian psychologist Joseph Delboeuf described as 'something approaching' simulation.<sup>24</sup>

Eventually the view of Charcot's rival Hippolyte Bernheim that all hypnosis is related to suggestion eventually won out against this more physiological approach.<sup>25</sup> Nevertheless, the way that Charcot's model of hypnosis as a hysterical state with a physiological basis emphasised the automatic response element and played down the role of suggestion was a serious challenge to nineteenth-century attitudes towards the self, which generally assumed an autonomous rational subject.<sup>26</sup> Since a sense of self-control was at the heart of nineteenth-century conceptions of sanity, masculinity and order, hypnotic loss of self induced by sound was potentially pathological and dangerous, leaving little room for more positive views of musical trance maintained by older religious traditions.<sup>27</sup> In this European context, the idea of hypnotic music could become the focus of a whole discourse relating to cultural concerns about the self in emerging urbanised societies where traditional

<sup>20</sup>Regnard 1887, pp. 261–2; Richer 1881, pp. 599–600; Binet and Féré 1887, pp. 88–9, p. 93. These experiments have superficial similarities to the testing of physical response to musical stimulus conducted by Wundt and Binet. See Weld 1912; Dainow 1977.

<sup>21</sup>Charcot 1886–93, p. ix, p. 294; Didi-Huberman 2003; Goetz 1995.

<sup>22</sup>Critchley and Henson (eds) 1977; Sacks 2007, pp. 23–9. I am indebted to Oliver Sacks for his suggestion in this area.

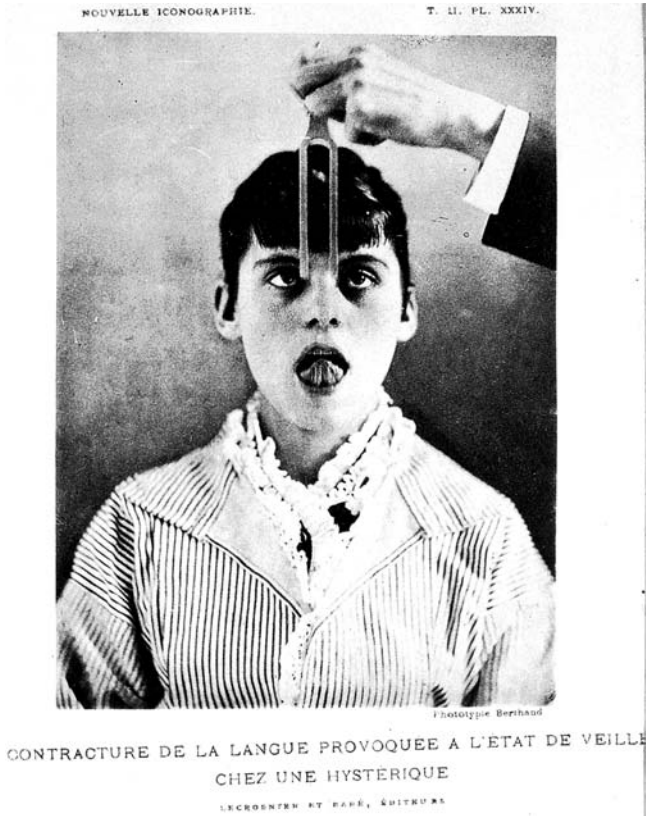
<sup>23</sup>Moll 1890, p. 29.

<sup>24</sup>Gauld 1992, p. 315; Delboeuf 1886, p. 31.

<sup>25</sup>Bernheim, 1884a, p. 179.

<sup>26</sup>Ribot 1883; Maudsley 1883, pp. 237–333; Clouston 1906; Griesinger 1868; Birnbaum 1911.

<sup>27</sup>Forth 2004; Cowan 2008; le Rider 1993; Sennett 1974; Becker 2004, pp. 97–100; Vine 1969; Daston in Woodward and Ash (eds) 1982.



**Fig. 2** A hysterical female patient at the Salpêtrière sticking out her tongue in a supposedly automatic response to the tuning fork used by the physician.  
 Source: Paul Richer, *Nouvelle iconographie de la Salpêtrière* (Paris, 1889), plate 34.

forms of social discipline were becoming less secure. The view of hypnosis put forward by Bernheim that everyone was potentially hypnotisable, not just hysterics, was another blow to the idea of subjective autonomy.<sup>28</sup> If, as he suggested, a hypnotised subject was an 'automaton controlled by a *foreign will*', then that autonomy was a rather flimsy thing, raising innumerable questions about selfhood and legal responsibility.<sup>29</sup>

Musical hypnosis was seen as a real danger in a context in which there was a widespread sense that the control of the mind over the body was not secure but at the same time absolutely necessary for order and morality. The assertion of the will, understood primarily as an inhibiting agent (closer in fact to the Freudian superego than the ego) was paramount. The editor of the *British Medical Journal* Ernest Hart summed up the problem when he wrote that for 'a cataleptic under the influence of the vibration

<sup>28</sup>Bernheim 1884a, p. 14.

<sup>29</sup>Bernheim 1888, p. 84. See Harris in Bynum *et al.* (eds) 1985, pp. II: 197–241; Laurence and Perry 1988; Mesnet 1874.

of a tuning fork ... the power of will is abolished, and the brain loses its *restraining* and *controlling* power'.<sup>30</sup> This threat required what the Edinburgh psychiatrist Thomas Clouston termed the 'hygiene of the mind', without which, he wrote, every social system among men and women would go to pieces.<sup>31</sup> Anxieties about the quasi-hypnotised, uninhibited mind, unfettered by the will were reflected in Gustave le Bon's *The Crowd*, which argued that the hypnotised subject loses all willpower and is directed by his lower neurological functions, becoming, as he wrote, 'the slave of all the unconscious activities of his spinal cord, which the hypnotizer directs at will. The conscious personality has entirely vanished; will and discernment are lost'.<sup>32</sup>

The emphasis on willpower as a force for inhibiting acting on desires had particular relevance when it came to sexuality. Charcot's colleague Gilles de la Tourette echoed the consensus when he linked hypnosis to female sexuality, writing that, 'Women are specially susceptible to hypnotic manipulation, particularly during the period between the thirteenth and the thirtieth year'.<sup>33</sup> The fact that the patients driven to catalepsy by sound were women places these experiments into the long discussion of hypnotism as male subversion of female will. That bellwether of fin-de-siècle cultural pathologies, Otto Weininger, drew on the work of Moll and Pierre Janet on hypnosis to argue that the essence of hypnosis was perverse female sexual pleasure in submission to the will of a male hypnotist.<sup>34</sup> Such was the sexualised power dynamic involved in hypnosis that de la Tourette rather blithely admitted that rapes under hypnosis are 'comparatively frequent'.<sup>35</sup>

The sexual implications of this kind of hypnosis were brought out in a study done by the American psychologist Aldred Warthin at the University of Michigan. Watching Wagnerites in raptures, Warthin concluded that they were 'in a condition of self-induced hypnosis' caused by the music.<sup>36</sup> In 1894 he presented the results of his experiments involving playing Wagner to clinically hypnotised subjects in *The Medical News*. He had been informed by colleagues of cases in which subjects were brought to orgasm when in a quasi-hypnotic state induced by listening to Wagner, but reported that he could not replicate this result in his experiments.<sup>37</sup> He did, however, suggest that such Wagnerian trances 'may be attended by danger'. 'The symptoms of collapse developed at times', he wrote, 'the accompanying emotional shock, might be increased beyond the point of safety'.<sup>38</sup>

The experiments with sound and hypnosis of this period were taken up in literary, philosophical and critical writing on music, all of which reflected the recurring anxieties about the self and loss of sexual self-control.<sup>39</sup> The combination of radical harmony, sheer volume and the phantasmagorical stage show at Bayreuth made Richard Wagner's work a favourite target for critics of musical hypnosis. Friedrich Nietzsche expressed his concerns about Wagner's manipulative techniques with allusions to hypnotism on many occasions, calling the composer a 'mesmerist' and 'a master of hypnosis'.<sup>40</sup> He

<sup>30</sup>Hart 1892, p. 1218, my italics. See also Anon. 1891, p. 714.

<sup>31</sup>Clouston 1906, p. 80. Maudsley 1883, p. 301.

<sup>32</sup>le Bon 1896, p. 15.

<sup>33</sup>de la Tourette 1888, p. 134.

<sup>34</sup>Weininger 2005, p. 267.

<sup>35</sup>de la Tourette 1888, p. 140.

<sup>36</sup>Warthin 1894, p. 89.

<sup>37</sup>Warthin 1894, pp. 91–2. See also Anon. 1895a, pp. 54–5; Wallaschek 1905, p. 298.

<sup>38</sup>Warthin 1894, p. 92.

<sup>39</sup>Alison Winter has noted the structural similarities between the mesmerist and the conductor. Winter 1998, p. 309.

<sup>40</sup>Nietzsche 1888, pp. 104, 99. See also pp. 103, 106.



seems to have been aware of the latest thinking on musical hypnosis. His notes were full of references to the work of Charles Féré at the Salpêtrière, and also to Hecker's *Die großen Volkskrankheiten des Mittelalters*, which dealt with St Vitus' Dance and Tarantism.<sup>41</sup> Similarly, the physician and cultural critic Max Nordau argued that Wagner's 'music was definitely made to charm hysterics. Its powerful orchestral effects create hypnosis—in the Salpêtrière hospital one often hypnotises patients with the sudden hitting of a gong. And the formlessness of the endless melody corresponds to the sleeping wandering of the mind'.<sup>42</sup>

The literature of the period also provides examples of the influence of scientific work on hypnosis and music and its related anxieties. For example, James Huneker's short story 'A Piper of Dreams' described the fictional composer Illowski, as a 'hypnotist' who 'conducted his orchestra through extraordinary and malevolent forests of tone'.<sup>43</sup> Huneker alluded to the homosexuality (a 'disease of the will') that so often seems to lurk behind this discourse of musical hypnosis when he wrote that Illowski 'treated the abominable teachings of Walt Whitman symphonically'.<sup>44</sup> By far the most famous novel to deal with the theme of music and hypnotism was George du Maurier's *Trilby* from 1894, in which the sinister Jewish impresario, Svengali, hypnotises the innocent Trilby and uses her talent to tour Europe.<sup>45</sup> Hypnotic manipulation was linked to sexuality here, too. Although Svengali was portrayed as an ugly caricature of a Jew and as rather effeminate (his voice 'often broke into a disagreeable falsetto'), the sexual and musical power of his hypnotic abilities was such that he marries the beautiful Trilby.<sup>46</sup>

### Musical Brainwashing and the Cold War

It is striking that the level of anxiety about the hypnotic effect of music has fluctuated according to the scientific and cultural context ever since the days of Mesmerism. The concept faded somewhat in the early twentieth century, partly because of the emphasis on the psyche rather than automatic response in Freud and dynamic psychology and also because of the development of hypnosis understood as suggestion as a medical sub-discipline. Panics about jazz, for instance, tended to relate straightforwardly to its supposed lubricity and not to its ability to hypnotise people. However, the idea that music could overpower listeners with its hypnotic effects enjoyed a huge revival in the 1950s as the concept of 'brainwashing' emerged, especially in Cold War-era America. Although many on the Left have fretted about the music's power to undermine the political autonomy of audiences, it proved particularly popular on the Right. The theme of musical brainwashing has recurred many times since the Second World War, generally relating to fears of subversion of the individual and national will by external forces.

Many aspects of the debate on musical brainwashing showed a marked degree of continuity to previous discussions of hypnotic music. The language of musical neuropathology, the mixing of moral and medical agendas and concern about personal autonomy

<sup>41</sup> von Herrmann in Franz *et al.* (eds) 2007.

<sup>42</sup> Nordau 1896, p. 375; Huneker 1904, p. 93.

<sup>43</sup> Huneker 1920, p. 41.

<sup>44</sup> Huneker 1920, p. 44. See also Mann 1978, pp. 16, 480–1.

<sup>45</sup> Du Maurier 1995; Pick 2000; Weliver in Fuller and Losseff (eds) 2004, pp. 57–82.

<sup>46</sup> Du Maurier 1995, p. 11. Stefan Andriopoulos has discussed the way that cinema was regarded as a form of hypnotism. Andriopoulos 2008.



in the face of music all had a long pedigree.<sup>47</sup> However, other elements of this discourse on musical brainwashing were more closely linked to its mid-twentieth-century and principally American context. The atmosphere in the United States, from the days of Cold War paranoia to contemporary Culture Wars, has proved fertile ground for panics about brainwashing. Another crucial change was the development of recorded music and the related phenomenon of the emergence of modern mass culture, as Rouget noted in his classic study of musical trance.<sup>48</sup> Similarly, the emphasis on young people, the main market for that music, reflected the development of teenagers as a distinct social group with a growing profile, spending power and influence.

Although many of the ideas associated with brainwashing came to prominence with the Stalinist Show Trials in the 1930s, it was during the Korean War that the term became known in the West. The term 'wash brain' (xi nao) originated in China, meaning to cure someone of anti-Communist 'false consciousness' with the techniques of 're-education', but drew on the concept of 'thought reform' that was based on an older tradition of meditation.<sup>49</sup> Examples of captured American POWs proclaiming sympathy for Communism led to US claims that they had been 'brainwashed'.<sup>50</sup> This was partly for PR reasons, to explain the apparent disloyalty of the troops, but it seems to have caused the CIA to conduct serious investigations into the possibility of using similar techniques themselves, some of which involved sound and music.<sup>51</sup> Crucially, whereas the Chinese version had therapeutic overtones, those Americans who promoted the idea, such as journalist-cum-CIA agent Edward Hunter, portrayed it a form of 'mental rape', a means of wiping a personality and imposing new ideas.<sup>52</sup> Understood in these terms, music's power to affect behaviour could thus be seen as a sinister potential violation of the listener's autonomy.

Although the concept of brainwashing did not have a long career in academic psychology, it proved more enduring in popular culture, expressing widespread Cold War anxiety about outside manipulation, including manipulation by music. The 1959 film *The Manchurian Candidate* has come to symbolise much of the debate, famously portraying an American soldier being brainwashed in 'Red China' to the extent that a set of playing cards can activate him as an assassin. More significantly for our purposes, Anthony Burgess's 1962 novel *A Clockwork Orange* and the 1971 Stanley Kubrick film adaptation both depicted the fictional 'Ludovico Technique', a form of aversion therapy that involved being forced to watch scenes of graphic violence while listening to music. Drawing on Pavlovian behaviourist psychology and reports of brainwashing techniques that had been in the press since the 1930s, Burgess described the 'special films' and the 'shot in the arms' that the protagonist experiences at the State Institute for Reclamation of Criminal Types. The procedure also prominently used 'very like sinister' music, reaching a climax in a scene in which images of Nazi atrocities are combined with Alex's favourite music, Beethoven.<sup>53</sup>

<sup>47</sup>Kennaway 2010.

<sup>48</sup>Rouget 1985, p. 121.

<sup>49</sup>Taylor 2004.

<sup>50</sup>Carruthers 2009, pp. 174–216; Schein 1961; Lifton 1961.

<sup>51</sup>The CIA set up Project MKULTRA, a covert mind-control programme that sought to combine music, drugs such as LSD and psychological methods to develop a functioning brainwashing system.

<sup>52</sup>Hunter 1951.

<sup>53</sup>Burgess 1966, pp. 76–7, 85.

Although journalists and CIA men such as Hunter played a huge role in promoting the idea of brainwashing, psychologists and psychiatrists also got in on the act, in particular those influenced by the Russian Ivan Pavlov. His influence on the debate on musical brainwashing related in particular to his famous use of a bell to provoke salivation in dogs. The conditioned reflex theory he developed, which also employed other acoustic stimuli such as tuning forks, metronomes and whistles, proved to be a crucial model for the power of musical hypnosis in the twentieth century.<sup>54</sup> Drawing on the Western European tradition and also on Russian sources such as Sechenov's work on the 'Reflexes of the Brain' in the 1860s, Pavlov argued that only physiology could make psychology a real science. As he wrote in 1906, 'Mankind will possess incalculable advantages and extraordinary control over human behaviour when the scientific investigator will be able to subject his fellow men to the same external analysis as he would employ for any natural object, and when the human mind will contemplate itself not from within but from without'.<sup>55</sup>

One important example of the Pavlovian psychology of automatic and conditioned response being applied to music can be seen in the work of the prominent English psychiatrist William Sargant, who had a significant impact on thinking on the dangers of musical brainwashing. Like Pavlov and Charcot, Sargant portrayed the will as vulnerable to external stimuli and promoted a highly reductionist view of human nature.<sup>56</sup> Men, he wrote, 'should humbly try to remember how much they resemble dogs in their brain functions'.<sup>57</sup> Music crops up regularly in Sargant's *Battle for the Mind* and *The Mind Possessed*.<sup>58</sup> Although he suggested that the stimulation of jazz was exactly what the European mind needed after the First World War, he portrayed rock 'n' roll as a genuine and alarming threat to the mind.<sup>59</sup> He wrote that, 'From the Stone Age to Hitler, from the Beatles to the modern "pop" culture, the brain of man has been constantly swayed by the same physiological techniques. Reason is dethroned, the normal brain computer is temporarily put out of action, and new ideas and beliefs are uncritically accepted'.<sup>60</sup> Sargant underlined the potential power of musical brainwashing when he suggested that loud rock music had been used to brainwash the heiress-turned-bank-robber Patty Hearst.<sup>61</sup>

The influence of Pavlov and an emphasis on automatic neurological response also played an important role in the work of the Dutch-born American physician Joost Meerloo, whose *Mental Seduction and Menticide* also had considerable influence on debates on the subject, particularly in terms of the rhetoric of 'menticide' (the murder of a mind).<sup>62</sup> Meerloo wrote more about music in his later book *Dance Craze and Sacred Dance*, where he displayed a very ambivalent attitude to rock music. He explicitly stated that 'the contagious rhythm of Rock 'n' Roll' is 'a form of rhythmic mass hypnosis'.<sup>63</sup> Although he made it clear that rock 'n' roll is just another dance craze that will burn itself out, he argues that it 'may go over into the madness of oblivion and self-destruction'.<sup>64</sup> Meerloo and Sargant were thus crucial in taking earlier theories of

<sup>54</sup>Despite some controversy in the past, it now seems clear that Pavlov did use a bell. Thomas 1994.

<sup>55</sup>Pavlov 1928, p. I: 50.

<sup>56</sup>Sargant 1985, p. 128.

<sup>57</sup>Sargant, 1985, p. 274.

<sup>58</sup>Sargant 1985, pp. 171, 93.

<sup>59</sup>Sargant 1985, pp. 58–9.

<sup>60</sup>Sargant 1985, p. 195.

<sup>61</sup>Macpherson 1976, p. 32.

<sup>62</sup>Meerloo 1956, pp. 37–54.

<sup>63</sup>Meerloo 1961, p. 34.

<sup>64</sup>Meerloo 1961, p. 32.

automatic response to sound from Charcot to Pavlov and applying them to the budding cultural and political struggles of the 1960s.

Work like this on music and hypnotism has proved extremely influential among American conservative evangelicals. Right-wing Christians such as David Noebel, long part of Billy James Hargis' Christian Crusade, have used it in their critique of rock music. Noebel's books *Rhythm, Riots and Revolution* and *The Marxist Minstrels*, which have been much quoted in subsequent literature on the subject, argue that rock 'n' roll is literally a Communist plot.<sup>65</sup> Pointing to the Korean War, Noebel concluded that, 'The Communist scientists and psycho-politicians have devised a method of combining music, hypnotism and Pavlovianism to nerve-jam the children of our nation without our leaders, teachers or parents being aware of its shocking implications'.<sup>66</sup> The political implications of this, he warned, could be that, 'If the following scientific program is not exposed, degenerated Americans will indeed raise the Communist flag over their own nation'.<sup>67</sup> He provided ingenious if paradoxical reasoning to explain why Communist states ban rock music although it is their own sinister invention—it just shows that they know how dangerous it really is.<sup>68</sup>

Noebel alluded to Alexander Luria and Pavlov and attempted to demonstrate that they were the brains behind an elaborate Soviet brainwashing programme. He presented Sargant as a crucial witness for the prosecution, along with the founder of the American Institute for Hypnosis, William J. Bryan, and 'a prominent Baltimore neuroscientist' with the improbable name of Dr Leon Freedom.<sup>69</sup> Noebel wrote that the Beatles' ability to 'mass hypnotise' young Americans, making 'teenagers weep and wail, become uncontrollable and unruly, and take off their clothes and riot' has been 'laboratory tested and approved'.<sup>70</sup> He went on to argue that their music is 'scientifically induced artificial or experimental neurosis', and cited Luria and Pavlov in the footnotes as if both of them had conducted experiments involving the Beatles.<sup>71</sup> It is perhaps not surprising that books of this kind play fast and loose with science, but people like Noebel have played a key role in popularising the idea of musical brainwashing, putting the familiar combination of the musical subversion of individual autonomy and fears about social order and sexuality into the context of Cold War paranoia and conservative hostility to the mores of the 1960s.

### Music as Satanic Brainwashing

During the Reagan era, the American anxiety about musical brainwashing that developed in the context of the Cold War in the 1950s was in part shifted onto another supposed worldwide conspiracy—Satanism.<sup>72</sup> The focus on Communism was generally dropped, but the 1980s and 1990s in America saw a full-scale moral panic that linked a modified

<sup>65</sup>Ostendorf in Fiebig-Hase and Lehmkuhl (eds) 1997, pp. 159–79; Redeskop 1968.

<sup>66</sup>Noebel 1974, p. 6.

<sup>67</sup>Noebel 1974, p. 3.

<sup>68</sup>Noebel 1974, p. 69. See Story 2000, p. 3.

<sup>69</sup>Noebel 1982, p. 31; Noebel 1974, p. 12. Dr Freedom is also mentioned by Edward Hunter. Hunter 1956, p. 17.

<sup>70</sup>Noebel 1974, p. 3.

<sup>71</sup>Noebel 1974, p. 47. See Sullivan 1987. Noebel also quotes others to show that music is powerful enough to affect plants. Noebel 1974, pp. 121–2.

<sup>72</sup>See Ellis 2000.

version of the 'science' of brainwashing, the belief in a literal supernatural threat (the 'Satanic Panic' of the period, with its lurid fantasies of a global network of perverts and killers) and the musical genre of heavy metal. Books with titles like *The Devil's Disciples*, *Rock's Hidden Persuader* and even *Hit Rock's Bottom* spread the word that certain bands were brainwashing innocent American teenagers with subliminal messages to lure them into the worship of the devil, sexual immorality, murder and especially suicide.<sup>73</sup> The authors of these books were often from the same right-wing American Christian groups that had popularised the idea of brainwashing in the 1950s, but by the 1980s the cultural and scientific context had changed. Musical brainwashing, by articulating powerful anxieties about the power of the mass media on the self-control of young people, has remained an influential theory in the Culture Wars that have divided America in the last 30 years, in which a resurgent American Right sought to reverse many of the changes of the 1960s.

Heavy metal was an easy target partly because of the use of satanic iconography and rhetoric in the genre, a means of provoking parents and society as well as asserting masculine power for an audience of alienated teenagers uncertain of their identity. Those who led the attack on heavy metal as a form of satanic brainwashing drew on the automatic response theories of musical hypnotism. For instance, Carl Raschke's 1990 *Painted Black: From Drug Killings to Heavy Metal*, one of many books to link heavy metal and the threat of Satanism and even ritual murder, suggested that the 'end result' of listening to heavy metal 'is to erode the nervous system with noise, as drugs destroy the cerebrum'.<sup>74</sup> Typically, it referred to the Korean War background of brainwashing and pointed to neuropsychological research on the links between music and the brain. It also gave many examples of people being 'converted to Satanism' by heavy metal music.<sup>75</sup> Views such as these were by no means unusual and there was no shortage of physicians willing to testify to the dangers of the genre. Child psychologist Dr Paul King stated that 87 per cent of his patients listened to heavy metal and compared it to a new religion.<sup>76</sup> Such was the panic that Tipper Gore's Parents' Music Resource Center even sold a \$15 'Satanism Research Packet'.<sup>77</sup> Raschke unselfconsciously provided plenty of evidence of the real fears behind his anger at the satanic threat, explicitly linking the political left in America to the 'national epidemic' of satanic evil.<sup>78</sup>

A new twist to the brainwashing theme emerged in the 1980s with a widespread panic about the ability of messages recorded backwards on record or CD influencing listeners subliminally and thus damaging their mental health. Concern about 'subliminal messages' first became widespread in 1957 when a market researcher called James Vicary claimed to have proved the potential of subliminal messages, and was reflected in Vance Packard's *The Hidden Persuaders* of the same year.<sup>79</sup> A supposedly auditory equivalent, so-called 'Backmasking' (recording messages backwards), first became common during the late 1960s with bands like the Beatles using techniques pioneered by 1950s' *musique concrète*, sparking a whole set of conspiracy theories analysing what the messages *really*

<sup>73</sup>Godwin 1986, 1995; Peters and Peters 1985.

<sup>74</sup>Raschke 1990, pp. 56, 161–77.

<sup>75</sup>Raschke 1990, pp. 170–2; p. 52.

<sup>76</sup>King 1985, 1988.

<sup>77</sup>Chastagner 1999; Richardson, Best and Bromley (eds) 1991; Jenkins and Maier-Katkin 1992; Victor 1993, p. 165.

<sup>78</sup>Raschke 1990, p. viii.

<sup>79</sup>Packard 1957.

said. 'Experts' often disagreed about what the backward message actually was, and they often left themselves open to ridicule. For instance, a well-known preacher in Ohio publicly burned a recording of the theme tune to the TV series *Mr. Ed* because he said it had 'Someone sing this song for Satan' backwards.<sup>80</sup>

The backmasking scare really took off when it was used to link heavy metal to the rise in teen suicide, which quadrupled in the United States between 1950 and 1996.<sup>81</sup> Although songs about suicide were by no means a new phenomenon, in 1985 Ozzy Osbourne was sued based on the accusation that his song 'Suicide Solution' had caused a 19-year-old to attempt suicide by musical brainwashing. The case was thrown out on freedom of speech grounds, but the idea of 'subliminal' backmasking appeared to offer a way around First Amendment protections. The parents of two teenagers who shot themselves in 1985 blamed the heavy metal band Judas Priest, claiming that, 'satanic incantations are revealed when the music is played backwards'.<sup>82</sup> Their expert witness (a marine biologist) said he could make out the words 'do it' backwards in the song. Although the case was not successful, the idea of heavy metal as a form of lethal brainwashing entered the public imagination. After teenager Richard Kuntz killed himself while listening to Marilyn Manson in 1996, his father testified before a US Senate Committee to argue that the musical brainwashing was responsible, and media reports blamed Manson for the Columbine school massacre in 1999.<sup>83</sup>

One author to attack the 'subliminal messages' of backmasking was Jacob Aranza, 'a young pastor from Lafayette, Louisiana'. His argument was that, although the 'brain' rejects the phrase 'God is Satan', if it 'heard, "dog si natas" a number of times, which is "Satan is God" backwards, it would be "decoded" by the right half (or creative part) of the brain and stored as fact!'<sup>84</sup> The political background to this anxiety about musical brainwashing was quite explicit. Aranza related his own born-again experience and conservative politics to the reaction against the Civil Rights movement, especially the racial integration of schools, and to the emancipation of women.<sup>85</sup> The same Neo-Pavlovian attitudes towards the effect of music can be seen in Bob Larson's 1983 book *Rock: For Those who Listen to the Words and Don't Like what they Hear*, which used phrases like 'deprogramming your child', familiar from anti-cult and brainwashing discourse.<sup>86</sup> Larson was part of a long tradition when he wrote that, 'heavier rock groups' can make listeners surrender their 'volitional authority' (i.e. their will), and that, 'live performances can rhythmically manipulate an audience until they reach a zombie-like state'.<sup>87</sup>

Academic sociological and psychological research on the relationship between teenage alienation, musical subcultures and suicide is continuing, but beyond a right-wing fringe the idea of satanic heavy metal musical brainwashing is no longer widely accepted.<sup>88</sup> The Satanic Panic has faded in general, partly due to the tendency of moral panics to burn themselves out, and perhaps also because of the prosperity of the late 1990s. Also, the passage of time has often made heavy metal bands into more or less respectable middle-

<sup>80</sup>Blecha 2004, p. 51.

<sup>81</sup>Birmaher *et al* 1996.

<sup>82</sup>Wright 2000, p. 371.

<sup>83</sup>Wright 2000, p. 381.

<sup>84</sup>Aranza 1893, p. 2.

<sup>85</sup>Aranza, 1983, p. 112.

<sup>86</sup>Larson 1983, p. 31.

<sup>87</sup>Larson 1983, p. 66.

<sup>88</sup>Scheel and Westefeld 1999; Rosenbaum and Prinsky 1991.

aged musicians or reality TV stars, making accusations of Satanism harder to credit. However, a large number of Americans continue to believe in musical brainwashing. The groups most likely to believe in the satanic musical threat are rural, uneducated conservative Protestant blue-collar workers with an unshaken faith in 'American values', for whom the rise of 1960s values, feminism, and especially the rapid deindustrialisation of the 1970s and 1980s led to a serious moral crisis.<sup>89</sup> Like nineteenth-century fears about musical hypnosis, contemporary panics about musical brainwashing are thus still closely linked to broader political anxieties about the social implications of music's supposed power to undermine individual self-control.

### Conclusion

Although it has proved highly influential in a range of different societies and contexts, the whole idea of musical hypnosis or brainwashing has several important weaknesses. There is not much evidence that people can be hypnotised against their will, let alone without their knowledge, in the way that the idea of brainwashing implies. The quasi-hypnotic states achieved with music might be better understood as a 'voluntary, self-controlled, learned change of self-consciousness'.<sup>90</sup> The evidence from the Korean War and elsewhere is that it was old-fashioned fear and violence that were apt to change behaviour, and that rumours of mind-bending techniques do not tend to amount to much. Sargent and the proponents of the notion of brainwashing may have argued that an 'idea' can be implanted, and people can act in all sorts of ways, but only someone who is mentally ill will actually *believe* things that are obviously nonsense for more than a short time.<sup>91</sup> Likewise, the notion of subliminal messages subtly brainwashing impressionable youths is highly questionable. Most studies have demonstrated that a weak stimulus in fact has a weak effect, and that backward messages have no effect whatsoever.<sup>92</sup>

In terms of the role of music, it should be noted that it has been found to have only a limited effect in the practice of hypnosis per se.<sup>93</sup> It certainly can be used to help achieve trance states that are analogous to hypnosis, but not at all in the automatic, physiologically determined way foreseen by those who have been most concerned about its dangers. Despite the popularity of the idea that musicians 'express' their feelings, the experience of playing and listening to music *is* partly automatic, but listeners only 'lose themselves' in the music if they are in some way complicit.<sup>94</sup> Anthropology, which has dealt with many trance states among so-called 'primitive' peoples, has come to more nuanced and less mechanistic conclusions, and perhaps might provide a way out of the dead-end of reductionist neurological understandings of such states.<sup>95</sup> Although some anthropologists did take an essentially Charcotian view of musical hypnosis as physiologically determined and probably pathological, since the 1940s anthropologists such as Herkovits and Bastide have turned partly to the idea of Pavlovian conditioned reflex but

<sup>89</sup>Frank 1999; Himmelsstein 1990.

<sup>90</sup>Erlmann 1982, p. 56.

<sup>91</sup>Brown 1963, p. 269. Schefflin and Opton concluded that Korean brainwashing was not very effective. Schefflin and Opton 1978, p. 89.

<sup>92</sup>Moore 1988; Vokey 1985.

<sup>93</sup>Fachner 2006, p. 23. See also Schipkowensky in Critchley and Henson (eds) 1977.

<sup>94</sup>Harrer and Harrer in Critchley and Henson (eds) 1977.

<sup>95</sup>Braid 1843, p. 56.

especially to structural social explanations.<sup>96</sup> Similarly, Rouget dismissed the idea of trance states as physiologically determined by the music concerned, pointing out that if it were true then 'half of Africa would be in a trance'.<sup>97</sup>

From the Bacchanites to Beatlemania, the Dionysian urge to escape individual subjectivity has often been associated with music, and since Plato has generally aroused the hostility of those for whom sober self-control is the essence of morality.<sup>98</sup> Even though the idea of 'possession' related to the musical trances may seem very distant, this has particularly been the case in the modern era, when such self-control has become the basis for a conception of the integrated subject that is profoundly antithetical to trance states.<sup>99</sup> The idea of a vulnerable self threatened by automatic hypnotic responses to music has been a way of rationalizing this modern hostility to the loss of self, and of imputing an involuntary physical character to phenomena that, as anthropology has shown, have complex social explanations. From nineteenth-century Europe to twentieth-first-century America, each 'moral panic' about musical hypnosis has combined the language of automatic response with culturally specific anxieties about the threat posed by music to the sober regulation of the self, and therefore of society. Whether in terms of Mesmerism, Cold War brainwashing or heavy metal backmasking, hypnotic music has thus provided a scientific basis for fear about musical 'contagion' as a cause of social problems. Today, when neurophysiological explanations of human behaviour are again *en vogue* in the humanities, politics and anthropology might be just as important as neurology in our understanding of the connections between music and the trance states of our own time.<sup>100</sup>

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<sup>96</sup>Junod 1912, p. 445; Rodrigues 1935, p. 122; Neher 1962, p. 151; Herskovits 1943, p. 25; Bastide 1972, p. 73. Neher even cites Sargant's work. Neher 1980, p. 119.

<sup>97</sup>Rouget 1985, p. 175.

<sup>98</sup>Taylor 1989, p. 303; Lippman 1963.

<sup>99</sup>Goldstein 2005; Taylor 1989; Cray 1999; Sennett 1974; le Rider 1993; Foucault 1970, p. 387.

<sup>100</sup>Oakley and Halligan 2009.



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