

# **Why the Cybermen stomp: the meanings of sound in the new *Doctor Who***

**Anne Cranny-Francis**

## **Introduction**

*Re-designed for a new millennium they stomped out of the fog and into your nightmares.*

David Tennant describes the Cybermen (*Music and Monsters'* (2007))

In the 2005/6 series of the BBC television series, *Doctor Who* starring David Tennant as the Doctor, the cyborg villains known as the Cybermen reappear in a double-episode entitled "Rise of the Cybermen" and "Age of Steel" (2006). The Cybermen are old foes of the Doctor, having featured in ten previous episodes of *Doctor Who*, with six different incarnations of the Doctor<sup>ii</sup>. The Cybers nearly always appear in a silver suit, the costumes fashioned in the past from components such as a rubber diving suit and cricketers' gloves. Not only do they now have a new costume, a more streamlined, dynamic version of the old Tin-Man suit, they also stomp – which is to say, they tread very heavily and in unison. The Cybers' loss of humanity has always been signified by features such as synchronised action and jerky, angular movements; however, this is the first time their tread has been so loud. This sonic signifier is so marked that it begs analysis: of what it is meant to convey to the viewer and how it contributes to the story and its narrative.

This paper considers some sonic features of this double episode of *Doctor Who* in order to locate the meanings of its narrative; the assumptions and values that motivate this story about the relationship between humans and technology. In doing so it also reveals the crucial role played by these sound elements in creating the

story and relating to viewers. The analysis necessarily includes the relationship between these sonic features and other meaning-making practices in the text, including visuals and words as well as the intertextual history of each sonic feature, particularly as it has functioned within this and related media (television and film). Further, the sound may also reveal specific aspects of the politics of the texts, just as do the words and images choices. So the analysis also explores the particular approach to technology that structures this narrative, and the view it assumes of human subjectivity.

### **Episode synopsis**

In this double-episode the Doctor with companions, Rose and Mickey arrive in a parallel Earth, almost indistinguishable from Rose and Mickey's home in London except that the skies are full of airships and the advertising is just slightly more technologically-advanced and intrusive. However, they soon discover that this is a world in which information technology has taken control of people's lives, signified by the universal wearing of bluetooth devices. In one scene everyone in a crowded street except the Doctor and Rose (Mickey is elsewhere) suddenly stop and Rose realises, by looking at her mobile (total convergence is also a feature of the technology), that they are all being sent the latest news. Effectively it is being downloaded into them, which begins the human-computer exploration that structures the episode. Eerily, they all laugh at the same time, and Rose indicates the item 'Joke' on her screen; it seems the technology is programming the humans, not vice-versa. And note that humanness is signified by reference to the experience of emotion (here, humour).

In the *Doctor Who Confidential*<sup>iii</sup> documentary screened on BBC3 after the episode the principal actor, David Tennant and producer and writer, Russell T. Davies discuss the episodes' concern with modern technology, particularly information technology.

*Tennant:* 'It is using things that *are* happening in the modern world, and maybe that we have a slight paranoid fear about as well – this whole idea that we get information downloaded. We download it into our computer, we download it into our phones. It's just a short hop to downloading it straight into your head.'

Davies notes that people are excited by the possibilities of contemporary technology but it also leads to "modern paranoidias and modern obsessions", including a relentless drive to upgrade. Tennant refers particularly to the fear generated by the fact that we don't understand many of the technologies we use:

'...That's where all the Cybermen come from anyway, this whole idea that the modern technology will slowly replace us, and that modern technology is out to get us...That's what we see throughout that episode, just this whole idea that it will slowly creep up on us and we won't quite notice it happening, which just makes it that worrying bit closer.'

In these Cybermen episodes the technology is all in the control of one corporation, Cybus and of one man, John Lumic. Lumic has a debilitating illness, which has him confined to a wheelchair, and he is using the technology to try to find a solution to his own approaching death. His answer is to fashion himself a body of steel within which his brain can survive; this is the contemporary genesis of the Cybers.

Lumic is not satisfied with cyborging himself, however, but is planning to create a generation of Cybers, though this is illegal under government regulations. Lumic

demonstrates his ruthlessness by having his first active Cyber kill the research scientist who threatens to report his experiments to the government - and when the UK President objects, at a party given by Rose's parallel-world parents, he too is killed. To ensure the compliance of the Cybers with his scheme Lumic has introduced an emotion-inhibitor into their programming. Once operating in purely rational mode the Cybers decide that all of humanity – eventually including Lumic himself – must be transformed.

The Doctor, Rose and Mickey battle the Cybers using a combination of the Doctor's advanced knowledge, Rose's ingenuity and Mickey's bravery and computing skills to save the day. Significantly, the way in which the Cybers are defeated is not through superior armaments however. In the second episode, we learn that the Cybers' emotion-inhibiting programming prevents them from not only empathising with their human 'others', but also acknowledging their own (non-)humanity. The story is resolved when the Doctor, Mickey and Rose work together to plant a virus in the Cybus communication system that releases the inhibitor. The humans inside the Cyber-suits must then face what has been done to them and the monsters they have become. The realisation drives them mad with grief and horror and they self-destruct.

### **Composer, Murray Gold**

*Doctor Who's* major sonic signifier is its famous theme music, composed by Ron Grainer and originally performed by the BBC Radiophonic Workshop under the direction of Delia Derbyshire. Current *Doctor Who* composer, Murray Gold has written his own version of the theme, which helps create the contemporary Doctors (both Tennant and predecessor, Christopher Eccleston) and this phase of the *Doctor*

*Who* narrative.

Gold has written the entire soundtrack for the show since it resumed production (with Eccleston as the ninth Doctor) in 2005. As producer and chief writer, Russell T. Davies noted, this has involved Gold in writing for a range of narrative scenarios: "Murray has to turn his talents to any genre, any style." (M&M 2007) Of the new series Gold himself says: "This show is, in a very un-English way, incredibly passionate. It ... came back to the screen and it has this very emotional voice. Slowly the music became its companion in that sort of emotiveness and that's the style that we've stuck with." (M&M 2007). As this paper shows, Gold's soundtrack for the first Cybermen episodes exploits this emotional appeal to create a particular story and debate about humanity and technology. The analysis begins with the *Doctor Who* theme.

### **The *Doctor Who* theme**

Mark Ayres describes Grainer's original composition this way:

With an eye to the fact that the techniques to be used to realise the theme were very time-consuming, Grainer provided a very simple composition, in essence just the famous bass line and a swooping melody. There are few harmonic changes, and these are marked out almost entirely by the movement of the bass line, with only sparing use of inner harmony parts to reinforce where necessary. Any indication as to orchestration or timbre was simple but evocative: "wind bubble", "cloud" and so on.

Ayres' article recounts the brilliant work of Delia Derbyshire to realise Grainer's vision at a time before synthesisers existed to create the sounds and multi-track tape

machines to mix them. Derbyshire's team actually recorded each separate sonic element as an electrical impulse and then assembled them into the original version of Grainer's composition.

In the *M&M* (2007) documentary Welsh National Orchestra conductor, Ben Foster maps the development of the theme, beginning with Delia Derbyshire's version which he describes as :

... really raw, almost electrical. It was electronic. Well, it wasn't even electronic; it was electrical wave form sounds, really brutal and brilliant, Then it became slightly more refined through the 70s, There started to be more, almost domestic keyboards; things you would hear in pop music at the same time. The version from the 80s, the Peter Howell version, was really a dazzling piece of work and really pure and energetic, and some dazzling sound effects. The bit at the end – the sonic boom – that still lives on at the end ... you didn't leave the TV; you sat there till the end, for the boom.

Murray Gold then describes his new arrangement of the theme music:

... what I've done to it is made it gallop along some more and Delia Derbyshire just didn't have enough clatter to it. You know, it didn't have enough bash, boom, wallop. The show's got a lot of bash, boom, wallop.  
(*M&M* 2007)

The theme immediately inducts viewers into the long-running *Doctor Who* narrative, situating viewers in the diegetic world of the Time Lords. Further, the theme signifies the technology that drives the narrative; there would be no Time Lord without the time-travel technology of the TARDIS, his time machine.<sup>iv</sup> – and this episode is also centrally concerned with technology. Yet, a contemporary hearing of the theme is

very different from that of the 1960s when electronic music was new and probably unknown to many television viewers. Then the theme signified the mystique of new technologies that included the television on which it was shown, itself a relatively recent application. In the early 21st century electronic music has a long history, synthesisers are relatively commonplace and many children compose their own music on home computers. So the theme's electronic elements no longer have quite the same significance as they did in the 1960s; in fact, these same elements seem more nostalgic than cutting-edge, at least to viewers familiar with the theme.

Gold's new arrangement adds what he calls 'clatter' to the theme, to accord with the adventure elements in the stories<sup>v</sup>. This also accords with the re-definition of the Doctor as "a fighting man", which is how the Tennant Doctor describes himself in his first episode ("the Christmas Invasion" (2005)) and how Gold describes the current Doctor in the *M&M* documentary. Sonically this identifies the program with science fiction adventure and the Doctor as an adventure hero – a character who typically represents goodness and high morality and who often stands for and/or dispenses justice. As the Tennant series continues, we learn that this is the nature of this Doctor – that he is, in the words of one character, "a lonely God".

These readings of the theme draw on its intertextual and generic meanings, but we might also analyse its constitutive features – not because of any essentialist meanings, but because we have learned to hear certain meanings or potentials in these elements. For van Leeuwen it is possible to locate in the music a set of choices (of tonality, time, melodic duration and directionality) that identify its philosophical and ideological allegiances. The *Doctor Who* theme, for example, is written in a major key, a practice that van Leeuwen identifies as coming to

prominence in the Late Middle Ages, during the rise of secularism: "to a gradual but irreversible shift in cultural hegemony from the Church to the rising merchant class, and major came to be associated with the positive values of that class: belief in progress through human achievement, science, industry, exploration, etc." (van Leeuwen 1987: 174) The notion of human progress and perfectibility replaced the divine as the source of inspiration and validation in the secular world of the bourgeoisie, and their music reflected that shift. The use of major key in the *Doctor Who* theme sonically aligns the program with these fundamental Enlightenment values. The program's beginnings in the 1960s, the era of the Space Race and of great excitement about the possibilities of science tend to support this reading, as does its almost fetishistic celebration of 'the human' – most notably by the current (Tennant) Doctor.

Similarly, van Leeuwen attaches particular meaning to homophony, music in which "one voice (the melody) becomes dominant, the 'top voice', and the other voices accompaniment, support, 'back up'. The parts of these 'subordinated voices' do not have individual value and are not melodically interesting in their own right." (van Leeuwen 1999: 81). This contrasts with the polyphonic music of the late Middle Ages, which is characterised by the complementarity and non-dependent status of the voices. For van Leeuwen the cultural politics of this practice is in its reflection of work practices, with homophonic music typifying the interdependence of capitalist work. The *Doctor Who* theme is homophonic, in its interplay of different elements with the soaring theme as the 'top voice'. From van Leeuwen's perspective, therefore, it operates as fundamentally bourgeois – an articulation of the human spirit, engaged in a secular quest for scientific advance and knowledge. And again

this seems a valid reading of *Doctor Who's* engagement with and celebration of the notion of 'the human'.

The *Doctor Who* theme can be read as supportive of the romantic view of science and technology that typified the 1960s and much of the 1970s; however, it seems to be more than a simple expression of bourgeois triumphalism. We might suggest, for example, that the tension between the "swooping melody" and its "famous bass line" opens up an interrogative space about the meaning and significance of those secular, capitalist values (science, exploration, progress) that many episodes of *Doctor Who* occupy. *Doctor Who* is often concerned with social and moral problems, as in these Cybermen stories. The advanced technology that mobilizes the stories is as much a source of interrogation and debate as it is of celebration, and this is most obvious in those episodes that concern the meshing of the organic and the technological – the Dalek and Cybermen stories that have threaded through the series from its very beginning. Foster's reference to the different sonic resolutions of the theme – including the sonic boom of the 80s – might then be read as indicative of this ongoing debate within the *Doctor Who* narrative.

As noted earlier, Murray Gold's version of the theme retains its basic elements – the bass "hook" and the theme, identified by Foster as "almost romantic, soaring" (M&M 2007) – and so is aligned with these readings of the program as sonically articulating bourgeois values. However, Gold also introduces his own meanings through both what he describes as "clatter" and his meshing of the Delia Derbyshire arrangement with contemporary instrumental sound, which both locates the composition for contemporary viewers and recalls the energy and impact of the original. As noted earlier, this situates the ninth and tenth Doctors – and explicitly the tenth – as

versions of the action hero ("a fighting man"). However, both Doctors are also locked in a Romantic struggle with the nature of good and evil and the meanings of morality, which has been a narrative feature of the show, but is explicitly located in their characters – so they are characterised as alone, isolated, God-like, tempted to use their power for evil (Frye 1968: 41). The passion that Gold identifies in the show comes from this Romantic conception of the Doctor as much as from the emotional engagements between the Doctor and his companions, and his version of the theme signifies this complexity in both the character of the Doctor and the *Doctor Who* narrative.

Individual episodes are the ground on which the fundamental narrative – the tension between human progress and development and social justice or moral good – is enacted. In the Cybermen double-episode human-technology relations are a key issue, as noted above, as is the related fundamental question about what constitutes 'the human' – and Murray Gold's soundtrack contributes substantially to these debates.

### **Popular music**

One musical strategy in the Cybermen episodes that is unusual for *Doctor Who* is the use of a popular music track. This intervention occurs when Mr Crane, Lumic's director of operations, orders the music playing in the Cyber factory turned up so loud that he cannot hear the screams of humans being transformed into Cybers. The music to which he listens and dances, to divert himself from the mayhem around him, is the 1961 hit version of "Wimoweh/The lion sleeps tonight" by The Tokens. It might be seen as significant that a song with roots in African popular music, which became a major hit for white American singers and groups, is used in the context of a

major colonisation of humankind. Referred back to the sonic interrogation of values identified above, we might read its use here as linking the unethical use of technology – or, more fundamentally, as the creation of unethical technology – with the progress narrative of secular societies. So this use of music continues the interrogation of bourgeois/secular science that is fundamental to the *Doctor Who* narrative.

This episode also addresses the ways in which individuals attempt to isolate themselves from having to engage in ethical debates or make moral decisions, the kind of disengagement that enables ethical abuses to take place. In this incident Mr Crane uses the music to create a personal space where he does not have to think about the pain and distress he is causing. His immunity to others' suffering results from his embodied participation in the music; it occupies his mind and senses, driving out any need or demand for ethical judgment about his role in the factory operation. In their studies of personal stereos and their users Tia de Nora (2000) and Michael Bull (2000) both write about the use of music to create personal space. So it may be used by the harassed individual to construct a safe or peaceful space within a difficult living or working environment, by diverting conscious attention to the music itself and, from there, to the individual's own concerns. On the other hand, we might argue, it may offer the individual a space in which to avoid or evade difficult situations, excusing her/him from the need to act. In this situation Crane seems an embodiment of Baby Boomer opportunism, using a song that was a Baby Boomer hit to evade his responsibility to prevent this dreadful colonisation. This use of music as escape demonstrates the sonic politics to which van Leeuwen refers (above), whereby engagement with the music sutures the individual into the dominant politics of a particular space or event. By enveloping the factory in a soundscape that

subsumes all dissenting or dissonant voices Mr Crane is able to enact its politics (of colonisation) – and Gold demonstrates the frightening power of music to position individuals outside social and ethical responsibility.

### **Cyber-stomp: sound effects as meaning**

Gold's sensitivity to the politics of sound is shown also in the development of a particular sonic motif for the episode – the stomp of the cybermen. Gold describes the Cyber's march in this way:

It's a really good device, a really good theme. It's the sound of organized automatons, completely merciless and unsparing, just coming to take you away. (*M&M* 2007)

When the new Cybermen first appear in *Doctor Who*, their heavy tread is their most striking new feature and seems to signify their power and purpose. The sound is constituted by a coordinated stamping tread - the Cybers march, rather than walk, generating the maximum possible noise. This sound effect creates a number of meanings, some through intertextual reference, others directly related to our experience of sound.

Sound is an embodied experience; we feel sound bodily, in a way we don't feel visuals or words. Loud sounds literally as well as figuratively shake us, and even medium-level sound is generated by infinitesimal movements of our bodies (in our ears). Michael Bull quotes William Welsch's work on sound and embodiment:

Whereas vision is a distancing sense, hearing is one of alliance ... hearing ... does not keep the world at a distance, but admits it. 'Tone penetrates, without distance.' Such penetration, vulnerability and exposure are characteristic of hearing. We have

eyelids, but not earlids. In hearing we are unprotected. Hearing is a sense of extreme passivity, and we cannot escape from acoustic congestion. - That is why we are especially in need of protection acoustically. (Bull 2000: 118)

We might want to argue that we do develop a form of earlid, which at least enables us to screen our engagement with sounds we don't want to hear; however, physically we do hear them whereas closing our eyes means we no longer see images we find disturbing or distressing. Hence the reliance of horror film on a soundtrack that maintains the narrative even for viewers who have their hands over their eyes.

The Cybermen's stomping reverberates through the viewer, suturing him/her sonically into the text, which we might argue is one of the major roles of loud sound in film and television; that it incorporates us bodily into the narrative of the text. George Lucas's use of the Dolby sound system in the *Star Wars* movies exemplifies this creation of sonic spaces that position, enfold and implicate viewers. The development of home cinema and 5.1 home sound systems make this cinema experience now accessible to television viewers – and with it the suturing effect of the sound. So the Cybermen tread works to incorporate the viewer into the diegetic narrative, as Gold explains:

The musical theme needed to be simple because it was always going to fit under the footsteps. Approaching footsteps are a kind of traditional device of suspense thriller. I suppose you could imagine lying in bed and hearing footsteps approaching your door, and then you'd hear the door creak open. I think with the cybermen you just hear the approaching footsteps and then all the windows get shattered. (*M&M* 2007)

Gold's explanation also refers to the other contexts in which this kind of heavy tread is heard, such as suspense thriller. Another direct referent of the uniformity of the march is military: the Cybers literally march through the streets of parallel London. This sonic referent brings with it a number of meanings that are activated in the text – aggression, loss of individuality, total order.

As a quasi-military force the Cybers enact the aggression associated with marching armies – unstoppable, pitiless, rendered inhuman by the precision of their movements. This precision requires the sublimation of idiosyncratic behaviours to the collective will of the entity. Implicit in this act of sublimation is the transfer of individual moral choice to the morality of the entity of which they are part, a problematic choice for soldiers in war (the Nuremberg Defence). George Lucas has used the same device for the Storm Trooper and Clone Armies of the *Star Wars* movies. The Cybermen are now sonically constituted as a group mind, intimidating because of their power as a unified, remorseless, emotionless force.

This is a familiar theme in science fiction, where it is often used to interrogate the relationship between individual subjectivity and technology; technology, it has long been feared, may come to control its masters. One of the most recent examples is the Borg from the U.S. television series, *Star Trek: the Next Generation* (1988-94). The Borg is constituted, like the Cybers, from a disparate group of individual entities (subjectivities) whose distinctiveness must be purged in order to connect them seamlessly to the group mind of the singular entity, the Borg. In this case the Borg's singularity is signified visually, through the radical prosthetics that are used to 'enhance' the individual's physical abilities and to wire him/her/it to the group mind. With the Cybers this loss of distinctiveness is conveyed not only through the

'uniform' or metal casing of the Cyber suit, which hides markers of social and cultural difference such as gender and ethnicity, but through their uniform marching tread.

So the Cybers' marching constitutes them as a collective entity and we soon learn that this collectivity is simplistically logical, ruthless, pitiless. The Cybers ruthlessly kill any human being who opposes them or whom they consider unfit for 'upgrade' (transformation into a Cyber). They do not empathise with their victims; quite the reverse, they present their colonising actions as beneficial to their victim. In this, the program's portrayal of the Cybers constitutes a deconstruction of colonialism and the rhetoric of progress that so often accompanies it.

The Cybers' aggressive marching is more than a step in unison; it is a stamp in unison – the 'boot in the face' stamp of George Orwell's *Nineteen Eighty-Four* (1989; 1949). It is about creating fear – not only as Murray Gold suggests, through their invocation of suspense, but also through their sonic domination of the individual's space. In a reversal of Crane's use of sound to shield himself from others; the Cybers' stomping march subjects the individual to the power of this apparently indomitable force by using sound to confound the individual – to prevent resistance and incorporate them into the Cyber world.

This construction of the Cybers as a group entity is in the tradition of Cold War science fiction. During the Cold War western narratives conventionally depicted the difference between capitalism and anti-capitalist regimes such as Chinese Maoism and Soviet state socialism (and between capitalism and Marxism, Socialism and Communism more generally) as the difference between individualism and collectivism. Individualism was equated with the respect for individual subjects and

for difference, whereas collectivism was portrayed as suppressing individuality and difference. This can be seen in a range of texts from Zamyatin's dissident *We* (1938; 1924) to Orwell's *Ninety Eighty-Four* and a host of Cold War movies in which the enemies of capitalism are depicted as mindless, emotionless slaves to a hive mentality – SF movies such as *Invasion of the Body Snatchers* (1956) and *I Married a Monster from Outer Space* (1958) and thrillers such as Alfred Hitchcock's *North by North-West* (1959). In these texts an equation is made between humanity and the ability to feel and express emotion. Those living within a collective, subject to its demand, are unable to feel and so are characterized as less than human – whether that is because they are alien or communist.

This Cold War motif has continued in science fiction, particularly within debates about the nature of the human and its relationship to the non-human (technology, animal). In these narratives the human is distinguished by the capacity to feel, unlike the non-human or the human-hybrid. The significance of this distinction is that feeling is related in these narratives directly to morality; the ability to feel for or as another being the basis of human moral judgment.

At the end of the second episode, "Age of Steel" the Doctor confronts Lumic who has himself now been transformed (initially unwillingly) into a Cyberman – the Cyber-controller.

Cyber-controller (Lumic): I will bring peace to the world. Everlasting peace and unity and uniformity.

The Doctor: And imagination - what about that? The one thing that led you here: imagination. You're killing it dead.

The Doctor argues that Lumic's plan will rid the world of what makes it worthwhile – people with all their eccentricities. Lumic immediately equates this essential human quality as feeling:

Cyber-controller (Lumic): You are proud of your emotions?

The Doctor: Oh, yes.

Cyber-controller (Lumic): Then tell me, Doctor, have you known grief and rage and pain?

The Doctor: Yes, yes I have.

Cyber-controller (Lumic): And they hurt?

The Doctor: Oh, yes.

Cyber-controller (Lumic): I can set you free. Would you not want that – a life without pain?

The Doctor: Might as well kill me.

Suppression of emotion is equated with the loss of humanity. As the Doctor explains to Rose when they first see the Cybers: "They were [people]. They've had all their humanity taken away. It's a living brain inside a cybernetic body – a heart of steel, with all emotions removed."

This representation is used to articulate concerns about the role and nature of technology in our lives; the concern that our interaction with technology will destroy our humanity. As with the computing systems in the Terminator movies (1984, 1990, 2003) and in *The Matrix* (1999) the emotional individuality of humans makes them unreliable and so must be eradicated. The enemy of humanity becomes the information technology that humans have designed, depicted in robotic and viral entities in contemporary science fiction that reinvest the Cold War stereotype of emotionless, pitiless collectivity with contemporary concerns. And now that fear has

not only a visual but also a sonic representation – the loud stomping march that reverberates through the viewer, communicating the associated meanings of aggression, uniformity, power, control, mercilessness, lack of emotion. The sonic signifier of aggressive militarism (stomping march) is added to the visual signifier of technology (metal-encased body) to create an entity that is an implacable enemy of humankind. Figured in this entity are the concerns about the dehumanising and controlling effects of contemporary information and bio-technologies that Davies and Tennant discuss in the companion *Doctor Who Confidential* episode (quoted above). The new sonic signifier composed for the Cybers in this episode deploys the affective power of sound – constituted in/as embodied experience – to convey the threat to individual subjectivity posed by this technology.

So this sound also locates the on-going narrative concern of *Doctor Who* with the nature of the human, and where or how the human is negatively affected by new technologies. This issue is not simplistically resolved in the program, or even in this episode, but is complicated by the Doctor's own alienness and his use of advanced technology. Further, Davies' and Tennant's descriptions with their concerns about the power of new information technologies is not so much that they destroy emotion, but that they encourage an uncritical acceptance of dominant social attitudes. The use of the older Cold War modes of representing this debate, however, suggests that something of the same anxiety resides in these contemporary explorations of human-machine relationships.

### **Machine noise**

The machine noise used in the episodes confirms this anxiety. The high-pitch whine of the Cybers' killing weapon and the high-speed screeches of the cutting tools that

transform human victims into Cybers, sonically convey the horror associated in the episode with technological control of the human. They do this through intertextual reference – the killing tools recalling the electrical impulse weapons of many science fiction films, and the factory machines referring us to the high-speed dentist drill. And the sound itself is disturbing. High-pitched so that it is disturbing to human hearing, it generates a space in which human thought and being is made difficult. Sonically, these are scenes where humanity is under attack.

Karen Collins describes the production of a similar “industrial-dystopia” motif in the Terminator films of James Cameron. She notes that “regimentation and mechanisation have become associated with – and used as a metaphor for – life in industrial and post-industrial urban environments” and she quotes James Cameron’s description of his concerns in the films that “[*t*]echnology threatens to dehumanize us ... As we suppress our emotions we merge with the machines denying life.” [italics in the original] (quoted in Allen 2004: 174).

The sonic creation of this meaning occurs at a number of key points in the text, another being the scene in which Lumic first presents his achievement to the President of Great Britain and asks for his support to enable the development of his Cybers. Here Lumic’s assisted breathing apparatus plays a dual role – diegetic and extra-diegetic. His Darth Vader-like laboured breathing is first heard as a kind of underscoring of the audiovisual presentation to the President, where it seems to personify or embody the new life-form Lumic is presenting. However, the camera switches to Lumic and the viewer sees that the breathing is (also) Lumic’s own, which predicts his later transformation into a Cyber and locates technological transformation with a character already revealed as pitiless and murderous (by this

point in the plot Lumic has already killed his chief scientist – the first order to his Cyber progeny).

The other sound effect that punctuates the narrative is the sound of the bluetooth-style ear-plugs worn by virtually all citizens. Their sounds are familiar from pervasive personal technologies such as computers and mobile phones, which Davies and Tennant identify as the focus of the narrative. These are not threatening noises, unlike the high-speed cutters and drills of the factory or the laboured breathing of Lumic, but are relatively playful, if insistent, high-pitched sounds designed to attract the attention of the hearer. But this pitch also relates them to the transformation of humans into Cybers, also sonically identified with high pitch sound. So a connection is made sonically in the episode between the pervasive technology worn by the citizens of this parallel earth (and of the viewer's own) and the creation of this new hybrid being that has lost its humanity.

The other notable use of a sound effect occurs at the end of the episode, when the Doctor has transmitted the program that enables the Cybers to understand what they have become. In one brief but poignant scene a Cyber gazes at itself in a reflecting surface and responds vocally, with a sad chirrup that has intertextual resonances with sounds made by *Star Wars*' R2D2. The high pitch and falling cadence of the response signify distress while intertextually maintaining the Cyber's identity as no-longer-human.

The other technological sound in *Doctor Who* is the sound of the TARDIS, which has remained relatively unchanged through the series. In some ways the TARDIS introduces an interesting problem for this narrative, based as it is in a conservative

equation of technology with non-humanity, the loss of what makes us human. At the same time, the great supporter of humanity, the Doctor is the most technologically proficient of all, and his vehicle, the TARDIS is the most sophisticated technology in the universe. This seems to introduce a logical contradiction into the episode, which is remedied by having the Doctor restore the TARDIS with his own breath - organic, if not human. So, when the technology fails (as the TARDIS has at the beginning of the episode), it is the essence of a living being that restores it. Sonically, this is indicated by a musical theme that is a combination of wind and percussion - an ethereal sound that contrasts markedly with the heavy and shrill industrial sounds associated with the technology of both the TARDIS and the Cybers. The sound of (a) being, it seems, is music.

### **Cyber-sound**

Yet this is to simplify the argument about technology in the episode. It is Lumic's use of technology that is presented as the problem, not the technology itself – as the alternative positive uses of technology by the Doctor and others demonstrates. The Doctor and Mickey use the same pervasive information technology as Lumic to unblock the Cybers' emotion inhibitor and restore them to a semblance of humanity. And, as noted, the Doctor's technological mastery makes a simple rejection of technology inconsistent with the premise of the program.

The focus of the program's critique is concern about the encroachment of technology on valued aspects of human individuality, including the emotion so valued by the Doctor and the moral capacity it generates. The Cybers' loss of this capacity is shown in their actions, their stomping tread, and in the final sound aspect considered briefly in the paper – in their voices.

After their transformation or 'upgrade' the Cybers speak with the flattened affect of the mechanoid, the machine-being characterised by lack of (human) emotion. This is a familiar trope in science fiction film and television, most recently associated with characters such as DATA of *Star Trek: the Next Generation* (1988-94), the Terminators of James Cameron's Terminator films (1984, 1990, 2003), and Agent Smith of *The Matrix* (1999). In each case it is a sign of deficit, of an inability to feel and act as an individuated human subject.

The de-individuated, emotionless voices of the Cybers carry this meaning, as when Rose and her father are confronted with the Cyber who once was Rose's mother, Jacqui. She is indistinguishable vocally or visually from all the other Cybers, which is the most shocking aspect of her transformation. This flattened vocal tone is also familiar to us in everyday life, when we use any form of automated telephone service (e.g. calling a taxi). It is not just the affect of the automated voice that is flattened; it is we who must flatten our vocal affect so that the machine can more easily 'read' our voices. In other words, the machine modifies – cybers – us in order that we fit its operational parameters.

This is the concern about technology that Davies and Tennant discuss in the *Confidential* episode accompanying the program; that we modify *our* lives in order to accommodate *its* demands, rather than vice-versa. It is a debate in which western society has been engaged at least since the beginning of the industrial revolution and the widespread development of powerful steam-driven mechanical technology; figured in the first science fiction novel in the cyborg character of Frankenstein's creature. The tonally flat voices of the Cybers, along

with the other sonic strategies discussed in this paper, not only create a story about Cybermen; they also continue this debate about technology and the nature of 'the human' into the twenty-first century and our engagement with new information and biological technologies.

Murray Gold's sound for *Doctor Who* engages viewers emotionally and intellectually with these debates and, as the analysis of this episode shows, generates its own commentary on the events of the story and on the issues they address. When Gold says that his music has become "companion" in the emotiveness of the new series of *Doctor Who*, he evokes a critical narrative role – the companion who enables the Doctor to complete his journeys, live through the adventures, save the world, and simultaneously enables the resolution of the issues which engage the narrative. Gold's sound – with his complex evocation of present and past, of multiple generic references and their meanings, and of the cultural commitments of post-Enlightenment narrative – is a fitting companion for the new series of *Doctor Who*.

## References

- Ayers, Mark. (on-line) "A History of the *Doctor Who* theme: Ron Grainer and the BBC Radiophonic Workshop", viewed August 10, 2008:  
[http://ourworld.compuserve.com/homepages/mark\\_ayres/DWTheme.htm#Grainer](http://ourworld.compuserve.com/homepages/mark_ayres/DWTheme.htm#Grainer)
- Bull, Michael. (2000) *Sounding Out the City: Personal Stereos and the Management of Everyday Life*. Oxford & New York: Berg.
- Chion, Michel. (1994) *Audio-Vision: Sound on Screen*. Ed. and Trans. Claudia Gorbman. New York: Columbia University Press.

- Collins, Karen. (2004) "I'll be back: Recurrent sonic motifs in James Cameron's *terminator* films" in Philip Hayward, ed., *Off the Planet: Music, Sound and Science Fiction Cinema*. Eastleigh, UK: John Libbey & Perfect Beat, pp. 165-75.
- DeNora, Tia. (2000) *Music in Everyday Life*. Cambridge: Cambridge University Press.
- Frye, Northrop. (1968) *A Study of English Romanticism*. New York: Random House.
- Gorbman, Claudia. (1987) *Unheard Melodies: Narrative Film Music*. Bloomington: Indiana University Press.
- Hayward, Phillip, ed. (2004) *Off the Planet: Music, Sound and Science Fiction Cinema*. Eastleigh, UK: John Libbey & Perfect Beat.
- Kassabian, Anahid. (2001) *Hearing Film: Tracking Identifications in contemporary Hollywood Film Music*. NY & London: Routledge.
- Orwell, George. (1989) *Nineteen Eighty-Four*. London: Penguin with Martin Secker & Warburg. [1949]
- Schafer, R. Murray. (1994) *The Soundscape: Our Sonic Environment and the Tuning of the World*. Destiny: Rochester, Vermont.
- Shelley, Mary. (1982) *Frankenstein, or The Modern Prometheus*, ed. Maurice Hindle, Harmondsworth: Penguin [1818]
- Shepherd, John & Peter Wicke. (1997). *Music and Cultural Theory*. Cambridge: Polity.
- Shepherd, John. (1991) *Music as Social Text*. Cambridge: Polity.
- Sider, Larry, Diane Freeman and Jerry Sider (eds) (2003) *Soundscape: The Shoal of Sound Lectures 1998-2001*. London and New York: Wallflower Press.

Van Leeuwen, Theo. (1989) "Changed times, Changed Tunes: Music and the Ideology of the News" in J. Tulloch and G. Turner, eds, *Australian television: Programmes, Pleasures, and Politics*. Sydney: Allen and Unwin.

Van Leeuwen, Theo. (1999) *Speech, Music, Sound*. London: Macmillan.

Zamyatin, Yevgeny. (1993). *We*. Trans. Clarence Brown. London: Penguin.

[1924]

### **Film and television**

Cameron, James. (dir.) (1984) *The Terminator*. Orion/Hemdale/ Pacific Western.

Cameron, James. (dir.) (1990) *Terminator 2: Judgment Day*. Pacific Western.

Fowler, Gene. (dir.) (1958) *I Married a Monster from Outer Space*.

Paramount/Gene Fowler Jr.

Harper, Graeme. (dir.) (2006) "Rise of the Cybermen" and "Age of Steel". *Doctor Who*, eries 2 Volume 3. London: BBC Worldwide.

Hawes, James. (dir.) (2006) "The Christmas Invasion". *Doctor Who*, Series 2, Volume 1. London: BBC Worldwide.

Hitchcock, Alfred. (dir.) (1959) *North by North-West*. MGM

Lyn, Euros. (dir.) *Music and Monsters*. *Doctor Who*, Series 3, Volume 1. London: BBC Worldwide.

Mostow, Jonathan. (dir.) (2003) *Terminator 3: Rise of the Machines*. C-2 Pictures.

Siegel, Don. (dir.) (1956) *Invasion of the Body Snatchers*. Superscope/Allied Artists/Walter Wagner

*Star Trek: the Next Generation* (1988-94) Paramount Pictures Corporation

Wachoski, Larry and Andy. (dirs) (1999) *The Matrix*. Village Roadshow/Silver.

---

<sup>i</sup> *Music and Monsters* (BBC, 2007), a documentary about the sound of *Doctor Who* and featuring interviews with composer, Murray Gold, producer, Russell T Davies, conductor, Ben Foster and actor, David Tennant, among others, is a major reference for the article and is signified subsequently as *M&M*.

<sup>ii</sup> The Doctor, the main character of the series has the ability to regenerate when near death – a characteristic introduced when the first actor left the series. The current star, David Tennant is the 10<sup>th</sup> Doctor.

<sup>iii</sup> After each episode of *Doctor Who* on BBC1, a short documentary about the episode was broadcast on BBC3, featuring commentary by those involved in the production and often a discussion of the ideas that underlie the story.

<sup>iv</sup> TARDIS is an acronym for Time And Relative Dimensions In Space and is the name given to the time travel technology used by the Time Lords, time travellers from the planet, Gallifrey who include the Doctor, Romana (seen in two incarnations) and the Master (now seen in four incarnations).