

Chapter 8

Ex-static but not ecstatic: Digital radio and the end of interference

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Abstract

Since its beginnings radio has struggled to rid itself of interference, which was regarded as a nuisance and a distraction from its message. Mainstream radio broadcasting, especially, has focused on delivering spotless, studio-quality sound, with digital technology being at the centre of recent developments. This paper argues that it is time to reconceptualise ‘interference’, to consider it not as an impairment of radio’s message but, more inclusively, as an integral part of its special texture. In a curious way, it has contributed to radio’s authenticity and its status as a medium of magic and intimacy, and in that sense it performs an aesthetic role.

Drawing upon radio theory as well as wider media and cultural studies, this paper will consider the positive functions and implications of interference as well as its connection with issues of space, both physical and imagined. With digital radio becoming ever more popular and the end of analogue in prospect, this paper argues that such transition involves a degree of loss as well as gain. Will radio ever be the same without the on-air meetings and clashes between broadcast sounds? What will *on air* mean if we can no longer detect broadcasting’s interaction with the physical space and objects around it? Is the digital domain a lonely space compared to the analogue radiophonic ether?

Keywords: interference, aesthetics, analogue, digital

The nature of interference

Interference in broadcasting has never been desirable. It is by definition something negative; the prevention of a process from continuing properly. However, when radio communication allowed us to transcend spatial boundaries in order to communicate messages instantly over long distances, it was impossible to completely bypass those things with which broadcasts had to share their space. As radio broadcasting became more and more popular, stations also had to compete with other stations for air-space. The latter was partly addressed with the regulation of the airwaves, but pirate stations have at times operated against these regulations.

The effect of interference is most often annoyance on the part of both listeners and broadcasters. Paddy Scannell wrote:

Radio listening in its early years was a hit and miss affair: the signal strength fluctuated and its range was limited. Transmissions from other stations on the same or similar wavelength interfered with what listeners had tuned into, and oscillation from other nearby radio sets was a menace in the 1920s... The elimination of interference, the achievement of clear, strong signals and the auditory quality (clarity, tone, timbre etc) of the sound transmitted by the receiving apparatus have been constants from the beginning of the audio industries to now. (Scannell, quoted in O'Neill *et al* 2010: 11)

Scannell's description is indicative of the fact that interference is normally seen as undesirable. It is implicit that 'sterile' or noise-free sound is good sound. However, in this paper I wish to argue that there are positive elements to the disruption of such sterility and I will be relating the concept of interference to the elements of time and space, both crucial to all radio. My analysis will be looking at radio as a medium which, crucially, evokes presence.

In my research for my PhD thesis I considered a wide range of radio theory texts, including work by avant-garde theorists in order to better understand the concept of intimacy in relation to radio. To generalise, it may be argued that it is in what may be termed 'mainstream' theory (and practice) that interference has been seen as purely negative, and to be fair not without good reason. Some representative works of mainstream radio theory, widely used in higher education, are Crisell (1994), Shingler & Wieringa (1998), Hendy (2000), Barnard (2000) and Starkey (2014), amongst others. Their work mostly analyzes mainstream radio practice, audiences and histories and deals with radio as it is in the 'real world' across the range of programme genres. In the non-mainstream (or avant-garde) strand of radio theory, writers such as Allen S. Weiss and Gregory Whitehead seem to argue that interference can be more radiophonic than the clear, programmed, articulate sound of mainstream radio. While I do not wholly share their ideas, I am intrigued by some of their arguments, however vague and open to interpretation these might be. The non-mainstream strand of radio theory is all about disarticulation – literal, in terms of what is heard on the radio, and metaphorical, representing an opposition to mainstream theory - and disengagement of any pre-conceived ideas of what radio is and should be. The position of this paper is by no means so radical, but engagement with such texts allows the radio scholar to look at the functions of interference in a different light. As early as 1990, Whitehead was

concerned about digital technology eliminating the rich sound-world of interference. He wrote then: 'Hidden behind the present fetish for fiber optics and laser discs is the powerful desire to eliminate the slightest trace of pneumatic interference' (1990: 62).

If we look at interference through the tension between mainstream and non-mainstream theorisations of radio, we observe a contrast relating to organisation versus disorganisation of sound, articulation versus disarticulation, clarity versus polysemy, linearity versus non-linearity. On the one hand, we have the well orchestrated, well rehearsed, well organised, and very live – or *as-live* - mainstream conceptualisation of a medium which seeks constantly to purge itself of interference; on the other hand, we have the idea of a medium which is naturally chaotic, disarticulate and unregulated. The truth, this paper argues, is somewhere in the middle. Interference would not be meaningful if it were not *interfering* with organised broadcasts. Interference is only a natural by-product of the broadcasting process. The disruption it creates is aesthetically reliant on the random meeting of articulate broadcasts and it is physically determined by the matter through and next to which these broadcasts move.

Even though interference might be more appreciated within the avant-garde, experience of interference in the past has come through the everyday use of the technology. The 'hunt' for the broadcast has traditionally been part of the process of tuning in to a radio station, and so culturally interference has become associated with the very essence of radio. It helps to declare that radio is indeed 'radio'. Sonically, in media production, the sound of interference is often chosen as the means to identify radio sound. The presence of radio sound is often understood through its interruptions and imperfections which aesthetically can help us separate it from other recordings. Moreover, the aesthetics of radio sound are very strongly bound up with the element of the unexpected. For instance, when wishing to convey the sound-effect of radio sound within a radio or television drama, a producer might start with interference which develops into a clearer signal or use continuous interruptions to a primarily music or voice broadcast. The way that radio is represented in media production can tell us a lot about the nature of the medium. Interference presents radio as a medium which travels through long distances and bypasses several obstacles; *material* such as buildings, bodies and so on, and *immaterial* such as other broadcasts.

Radio has been dubbed an intimate medium and it may be argued that this intimacy relies on a particularly intense sense of *presence* that radio possesses. In the case of interference, despite its seemingly disruptive character, the element of presence is, I would argue, retained and expressed in two distinct ways: the presence of matter and the presence of other broadcasts. We may, then, categorise interference into two types:

Interference consisting of one or more broadcasts interfering with another Here the human voice becomes interwoven with others, part of a chorus of voices, songs and sound effects. This means that now the broadcast seems to communicate not only with the listener, but, however unwillingly, with other broadcasts too. For example, while listening to a song, one might suddenly hear the voice of a news presenter. This effect presents the ether as a populated space and a meeting place and, in allowing broadcasts to leak into each other, evokes a sense of fluidity.

Interference coming from physical objects and human bodies In interference of this kind, physical objects as well as the listener's body may acquire a 'voice'. For example, we may often affect the sound of our radio when we walk near the receiver; we create interference and we cause the sound to break up. The materiality of the broadcast then becomes apparent: to intercept its space means to interrupt it, or rather, to change it. This is a rather embodied experience that contrasts somewhat with a common perception of radio sound and the radio voice as disembodied. This kind of interference is really a marker of the objects and bodies which share the same space with the radio transmission. Steven Connor, a professor of English at Cambridge who has written extensively on radio and sound, in his essay 'Atmospherics', argued that with radiophony the air itself was given a voice. 'What came through *on* the air was the sound *of* the air, given voice by being given over to the electromagnetic carriage of voice' (Connor 2006: 3). The 'voice' of a building, a mountain, or a listener's body is indeed a very fragile, fleeting one. Interference is an event that only happens once and cannot be replicated. And considering the absolute power of live sound in radio, (which means often recording 'as live'), then, perhaps paradoxically, interference is very close to the evanescence associated with radio sound. It is a manifestation of radio's materials: sound-waves, air, antennas, bodies, voices and ears.

The technology of interference

The fluidity and fragility of interference evoke a blurriness of boundaries which for most of radio's history was reinforced by the tactile technology of round dials on radio receivers, which allowed for an experience of fluidity rather than the set boundaries that buttons established later on. Aesthetically these buttons often even try to imitate the old circular dials. But they can only turn position by position, the fluidity of the old dial broken into little segments. Digital radio technology has perfected, then, the elimination of what is *in between* broadcasts and has separated them perfectly. On the one hand, the turning of the analogue dial re-enforces the medium's serendipity and perfectly represents the fluidity of the analogue radiophonic ether. On the other, the pressing of a button imposes a *separation*. The latter seems to transform radio signals from broadcasts which are delivered through the ether to broadcasts that are tightly confined within narrow radiophonic spaces.

Interference is a reminder that radio is in fact a form of *telecommunication*, that is, of communication over distances. Interference carries with it the 'grain', the dust of the journey of the broadcast through space. The disappearance of this element will, I would argue, constitute a loss for radiophony and its audience. If interference at first glance seems to be a threat to the linearity of articulate, organised single radio broadcasts, it does signify and ensure a broader linearity related to the way that radio as a whole travels. Interference creates a conceptual duality within which 'radio' and 'a radio programme' are somewhat differentiated. If one were to devise a makeshift radiophonic ontology for the purpose of this argument, the medium would not, of course, be 'radio' as we know it without radio *programmes*. Yet, at the same time, radio programmes are born, owe their existence to and move along the constant linearity of what we call 'radio'. Interference is a material manifestation of this ontology and the means by which we place radio within a broader system of space and time. Paradoxically, interference, while continually threatening that second level of linearity at which programmes exist,

represents a more fundamental level of linearity which characterises *all* radio. It is a kind of sound-enriching *ison* - that is, a constant which represents and unifies radio, in the way that a drone note is often used in a Byzantine chant to enrich the singing within a harmonised or polyphonic work.

From its beginnings, radio has been a medium that was part of its message. From the early radio enthusiasts, to the radio pirates, to the everyday listener tuning in her different radio sets to her favourite station in order to be able to hear it throughout the house, the technology was always ‘hands on’, and sometimes, perhaps, even fiddly. Analogue radio technology allows the listener to interact with the signal, to try to fix it by adjusting the aerial or the whole receiver, or to move herself closer or further from the radio set in order to get a better signal. DAB receivers, however, have been marketed as interference-free, but in reality they are not and listeners seem to be less tolerant of digital interference than analogue interference. One obvious reason is that DAB receivers cost considerably more and so consumers want to get what they paid for. But, crucially, the listener does not have the embodied means of the analogue to try to fix the digital interference, which occurs when the signal is too weak. The process could be very complicated and involve trying to find other devices which may be interacting with the digital receiver. Another reason that digital interference is so unwelcome could be sonic. Interference on DAB sounds electronic, disconcerting. Digital interference is more of a loss of sound or a complete distortion rather than a change of it. Analogue interference sounds more natural, or, one could argue, *organic*. Sonically, digital interference seems to be rather dehumanising in the sense that it impacts on presence and liveness. In the example used above, a listener might tune several analogue radios into the same station so that she can move around the house seamlessly following the continuous, linear signal. On the contrary, the delay effect in digital receivers, often variable depending on the maker of the set, renders them out of sync, which means one cannot follow a broadcast throughout the house in the same way. Whereas the analogue signal is ever-present, continuous and live, the digital signal seems to be spasmodic, disrupted and subject to delays. Surprisingly, then, we may see digital radio as prone to disruption and analogue radio as naturally fluid, uninterrupted. Underneath the analogue crackles there is always a voice, a sound; where analogue interference consists of layered sound, digital interference seems to be more of a *loss* of sound.

Conclusion

With technological innovation there always seems to be a degree of loss as well as gain and often there is an aesthetic price to pay. The differences between analogue and digital radio offer an analogy with those differences between traditional, paper books and e-books, such as Kindles. As with analogue radio, books offer a more tactile, embodied experience than Kindles do. The reader can *interfere* with a book. She can bend it, write on it, tear pages out of it, smell it - and in the same way, the signal of analogue radio can be manipulated by changing the position of the receiver, or its antenna, or even by a listener moving around the receiver. The handling of the book results in an artefact which is not pristine but offers sensory pleasure. Similarly, the fragile relationship of the analogue signal to the matter around it results in non-pristine sound. Listeners, as well as readers, naturally value the benefits of new technologies - in the case of Kindles, a small and light device that can carry a large number of books; in

the case of digital radio, a clearer sound and access to additional stations. But audiences, as well as readers, seem to show a certain fondness for a bit of imperfection, as is apparent in the debate about the merits of vinyl records versus CDs and mp3s. Enthusiasts of vinyl value it because of the ‘warmth’ that analogue recorded sound carries, because of the tactile and visual pleasure that the album covers afford and, crucially, because of the tactile and audible way in which vinyl carries the ‘grain’ of time and matter. The scratches on a vinyl record may be seen as damage, but they are often treasured by owners because they represent a similar grain to the one that interference represents for radio. They are signs of a journey through actual space and time. Today, even digital devices try to replicate the hands-on experience of analogue technology. Mobile phones and tablets discarded buttons in favour of swipes and taps of the finger on their screens, allowing users, literally, to leave their fingerprint on them.

While celebrating radio’s resilience and remarkable ability to adapt to the changes in the media landscape, it may be argued that a healthy dose of interference is not so much a challenge to radio’s evocative power and traditional strengths as an affirmation of them. Do not throw away your DAB radios and start looking for stations on short wave! But an understanding of the aesthetics of interference can help the radio scholar as well as the radio practitioner to be more creative in their approach to both theory and practice.

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