Embedded in this modern fast-paced society… can we hear silence? Analysing the presence of silence in a radio programme

Media and Communication Psychology

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Abstract

This article examines the notion of silence in the context of the current fast-paced society. The exploratory research project draws on observations relevant to every one of us, surrounded by the constant noise (information, traffic, sounds) as well as on existing literature reporting the suppression of silence in favour of words in the media. In this article, we argue that silence is an element of communication which offers additional forms of meaning-making within social contexts. Using 'The Archers', one of the most iconic radio drama programmes in the United Kingdom, this article investigates the use of silence in comparison with the use of other verbal and nonverbal elements of communication through content analysis. The findings illustrate that silence is an integral part of communication and silence associated with the field of psychology. The article recommends further research on the 'understanding' of silence, identifying additional psychological interactions between media and society, as well as its influence and the control that media has over society.

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Keywords

Silence, communication, radio, consciousness, emotion

Introduction

Is silence communicating 'something' or 'nothing'? (Bindeman, 2017). This article studies the role of silence from the perspective of the mass media, its power and how communication is established. This article starts with an outline of the study of silence in philosophy, psychology, and linguistics, setting up the situation of silence in media. Within an explorative approach, this article analyses the silence of a short radio drama episode. The findings reveal the use of silence as a communicative tool that produces emotional effects. This builds on existing literature leading to further investigation in the study of silence in different fields of media. Two caveats in this article should be disclosed. The article is focused on a short radio drama episode played on a spoken-word radio station which is an anomaly of the broadcasting day in the UK. This appreciation links to the acknowledgement of the environment of this programme's listeners: Western society. However, slow time and silence are also valued in a fast-paced society, for example, meditation[1] and mindfulness (Keng et al., 2011; Thomas & Cohen, 2014). At the same time, the intercultural understanding and awareness of 'silence' in other cultures[2] should be acknowledged. In Hall and Hall's (1990) categorization by culture, Japan is near the top because of the respect for long silence. Following on with this theme, Kawabata and Gestaldo (2015) reported a continued value and respect for silence in Japan. Lewis (2018) reported that Finns are comfortable in silence (in private or in a group) (see also Sajavaara & Lehtonen, 1997; Johanna, 2020).

This article seeks to explore the concept of 'silence' by drawing on an innovative research project increasing awareness and knowledge about silence and its meanings, that is, by analysing a radio programme in which silence is a feature. This project focuses on communication, questioning the value of silence for the benefit of the person and society. Indeed, this study gives more weight to the concept of power, and perhaps abuse of power in media (Hassan, 2004; Moffitt, 2016; Ward, 2014). The project employs an interpretative paradigm in order to

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[1] See also Vipassana (BBC Sounds, 2020)
[2] See Robinson (2020) for more understanding of the concept of 'critical listening positionality', that is, personal background affects the way we hear sound, music (2020) and silence.

develop a structure (Robson & McCartan, 2016) which offers an understanding of the different meanings of silence. The reason why this article uses a radio programme is due to the fact that radio is the obvious medium that does not rely on the other senses, particularly sight, forcing the listener to pay attention to the sound and so, the individual is more able to be focused on the hearing function (Greenfield et al., 1986; Nisbett, 2003). Based on this framework, it is possible to disseminate the significant meanings of this notion which seems to be hidden by the constant 'noise' in our modern society. Furthermore, a closer look at the notion of silence in this research releases constructive opportunities for further studies in other fields such as communication and psychology (Lane et al., 2002).

Theoretical background

The phenomenon of 'silence' seems difficult to experience as individuals are bombarded by noise and sound (Christensen et al., 2021; Themann, 2019). Castells (2009) explained that the mass media have grown to exert power over what and how we communicate and so, this power and control can affect the confidence to use silence (Williams, 2002). As the background of silence, this concept has been revised in fundamental fields of study. Firstly, silence is discussed in philosophy as a phenomenon. Secondly, the relevance and controversy of silence in linguistics are noted. Thirdly, mass media is introduced because of its impact on the experience of silence.

Philosophy

The phenomenon of silence has been studied over the years in philosophy. Ancient philosophers had already expressed serious views about the concept of silence, showing the practicability of silence. For example, Socrates (Plato, 1999) and Augustine (1948) appraised silence as necessary in order to reflect, meditate and contemplate (Bindeman, 2017[3]; Caranfa, 2013). That is, philosophers in the past were concerned about the space given to pause and to think, reflecting on the importance of it in teaching and learning (Augustine,

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[3] Bindeman, 2017 studies the concept of silence from fields such as phenomenology, theology, art, and music among others.

1948). Even more, philosophers and other scholars have reflected on silence: The space left to construct meaning and understanding can also involve creativity (Gauguin, 1993; Jaworski, 1993). Moreover, the period when the person stays in a state of 'waiting' could be perceived not as a time of anticipation but as a time of waiting, a time to meditate and be creative (Tallis, 2014). Another discipline that offers different meanings to silence refers to the study of the psyche. Apart from the realisation that silence could mean 'happiness' and at the same time 'sadness', there have been authors who have focused on different meanings, particularly concentrating on psychotherapy, silence as discomfort and anxiety (Salzberg, 1962) or revenge, defence, death, identity, pleasure or displeasure (Zeligs, 1961).

Linguistics

Furthermore, silence has been studied in fields such as linguistics. Questions arose in terms of silence being part of nonverbal communication, paralanguage[4], a vocalic cue or even reports about the quality of silence being segmental or not segmental (Burgoon et al., 1996; Crystal, 1969; Hinde, 1972; Gutiérrez-Menéndez, 2019[5]). Poyatos (2002) considered silence – labelled by this author "alternant" (2002, pp. 164–165) as a 'marker of communication' with different functions: pacing, delimiting speech segments, opening and breaking speech for different purposes (making a gesture, thinking, hesitating, forming ellipsis, creating memory, and avoiding saying something, among others). Knapp (1982) differentiated functions of silence such as repetition, contradiction, substitution, complementation, accentuation and regulation. Theorists still disagree that silence is part of paralanguage and whether it is a vocal feature. Indeed, Crystal states "there is substantial disagreement over the term in literature" (1969, p.140). Even more, silence is questioned as a communicative element (Ephratt, 2011; Kurzon, 1998[6]). Regarding classifications, Bruneau (1973) identified three forms of silence:

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[4] Poyatos 2002 defined 'paralanguage': "The nonverbal voice qualities, voice modifiers and independent utterances produced or conditioned in the areas covered by the supraglottal cavities." (p.2).
[5] See further discrepancies regarding silence in linguistics (Gutiérrez-Menéndez, 2019).
[6] Kurzon,1998 studies the interpretation of silence in different contexts.

Psycholinguistic, Interactive and Sociocultural. Jensen (1973) grouped five functions of silence: linkage, affecting, revelational, judgmental, and activating (see also Ephratt, 2008, 2022[7]). Verschueren (1985) used empirical evidence and reported that silence is rarely neutral; it can be deathlike, tomblike, solemn, and pregnant, among others (1985, pp. 73–121). These numerous forms and functions as well as the paralinguistic discrepancies reported above indicate complexity in the concept of 'silence' and in silence as a phenomenon in society.

Mass Media

The experience of silence seems to be compromised from a mediatic perspective. In 1983, McQuail (2010) was one of the influential theorists in media seeking to explain *mass communication*, identifying "media-cultural themes" such as "popular culture", "political economy" and the "impact of technology" (2010, pp. 113–114). McQuail (2010) foresaw 'globalization' along with 'homogenization' where the aim was to increase productivity (see also Keane, 2013). Earlier on, in 1962, Habermas (1989) had already written about the influence of the mass media on the public sphere, where mass media had changed the world to a world of cultural consumption. While the *public sphere* is being asked to move fast, the role of silence was already a topic of interest as is explained below.

Media, Radio, and Silence

In the first part of this section, the article reviews the theory about the position of mass media in reference to silence. In the second part of this section, the article focuses particularly on the radio in order to isolate the sense of hearing and be able to be completely focused on the audio (without the 'noise' of the images).

Media and Silence

Before McQuail's (1983), and at the same time as Habermas' (1962) considerations about *media*, McLuhan (2002) had already written about the

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[7] Ephatt 2022 offers an extensive scholarship on verbal silence (form and functions).

'global village' in 1962. In his later book in 1964, the philosopher carried on explaining further concerns about this single community: "This is the Age of Anxiety for the reason of the electric implosion that compels commitment and participation, quite regardless of any "point of view"" (McLuhan, 1994, p. 5). Habermas (1989) also reflected further on modern society: "The public's understanding of the use of reason was guided specifically by such private experiences as grew out of the audience-oriented subjectivity" (1989, p. 28), which raises questions upon the individual and the possibility of having the time to think and reflect before the *global village* is *shepherded* what to think.

Moreover, years on and embedded in this *global culture*, Di Stefano (2015) commented positively on the expansion of the Internet and the development of Web 2.0 and Web 3.0, which enables virtually silent viewers to transform into talkative producers. Earlier on, Berry (2006) had already stated the podcasting's engagement. However, Murthy (2013) reflected on the current social media communication adding a similar area of thought but highlighting the concept of quality/quantity and usefulness: "What is the significance of this electronically diminished turn to terseness? … the rise of new virtual "me" cultures? Are we saying more with less, or just saying less" (2013, p. IX). This relates to the 'click here to answer' culture without taking time to think. Following on, Van Dijk (2006) had already questioned this issue: "Who is able to assess the quality of the exploding number of statements, questions, rumours and accusations published on the Internet" (2006, p. 106). This last statement brings more questions on the time spent on thinking and reflecting before adding new comments on the Internet or rather having a second or two to double-check the quality, purpose or even common sense of the message (Brailovskaia et al., 2020; Keane, 2013; Stockdale & Coyne, 2020).

The quality/quantity issue of information previously presented was reflected by Jaworski et al (2005), who at the same time offered extra input on the use of silence. These authors explained that media journalists by profession adopt the approach of rolling coverage – repetitions, filled pauses, hesitations, and speculations overcome in order to avoid silence (Jaworski et al., 2005). Even when there is no new information to report, there is no space for silence;

instead, a continuous "recycling" of information (Liebes, 1998, p. 77). There are further examples showing how the media 'reuse' events and the 'misuse' of silence in the media: the terrorist bus bombings in Jerusalem and in Tel Aviv (1996) and the September 2001 attacks in the US. That is why, some investigators (Jaworski et al., 2005) described the broadcasting of the events as 'formulaic phatic approach'. The repetition of the story of the newsworthy disaster may serve as a 'therapeutic' means to manage trauma (Mellencamp, 1990): the newsreader and the audience need to continue with the crowded signal because of the aftershock events. Sreberny (2011) referred to it as 'trauma talk' (2011, p. 293). Indeed, Schudson (2011) described it: 'a prose of solidarity rather than a prose of information' (2011, p. 49). Jaworski et al. (2005) named this type of silence as 'metaphorical' – "absence of new information filled by incessant repetition of old information, irrelevant talk, noise" (2005, p. 122).

This phenomenon where silence is being swamped by other 'communicative' elements raises further thoughts about the attitude towards silence and the meanings which induce psychological reactions. Silence can be used in a figurative sense. Noelle-Neumann's (1974) Spiral of Silence was established through research in politics and public opinion but was based on Tocqueville's (2008) prior reflections in 1856. This political philosopher revealed how some individuals preferred to keep silent about their religious beliefs about Christianity and join the masses, "dreading isolation more than heresy" (2008, p. 156). In this case, silence is understood as fear, isolation, and powerlessness in the face of public opinion. The need to stay silent and protect oneself has been recognised by other authors. Bruneau (1973) reported this behaviour with the example of the martial law imposed in the Philippines showing 'political control' (1973, p. 39). Following on, Brummett (1980) wrote about the use of silence in political power (sociological reactions) as *strategic* and *rhetorical*. Years later, Jaworski (1993) mentioned silence as a "powerful tool of expression in political language" (1993, p. 47). This control and power from the state sector indisputably applies to 'propaganda', and indeed to mass media (Soules, 2015). Castells (2009) stated that mass communication and power stand together in structuring reality. In this 'environment', journalists and producers try to avoid

silence and replace it with "other ways of filling airtime" (Jaworski et al., 2005, p. 129). That is, broadcasters and producers try to avoid 'dead air' (Nisbett, 2003; Shingler & Wieringa, 1998; Weinberger et al., 1994). This line of thought goes back to Steiner (1985) and Johannessen (1974) who contemplated the diminishment of silence and the expansion of words, for example in advertisements (Rogalsky, 2003) and political persuasion (Schudson, 2002). Indeed manipulation (Ellul, 1973) by the power of the media industries. Donovan and Boyd (2021) explained how 'strategic silence' was used by editors for benefit of the society, showing strong ethical principles. However, the researchers warned about the Internet and networked technologies *manipulating* information. Reflecting on techniques, van Leeuwen (1999) studied the interaction of speech, music and sound in television, radio, and film. considering how functional linguistics and semiotics are applied to, fulfilling three meta-functions (ideational, interpersonal and textual). Silence is mentioned throughout the book, highlighting its role as a ruler of conversations. The author affirmed that each part plays "its own part, like instruments in an orchestra" (1999, p. 189).

Radio and Silence

Radio is one of the forms of mass media which shows a total connection with the hearing system, and so radio reacts to codes such as "speech, music, sounds and silence" (Crisell, 1994, p. 5). Just with these four attributes, Cantril and Gordon (1935) described two of the major characteristics of radio. As well as radio as entertainment, the authors highlighted its ability to educate and persuade. In reference to 'persuasion' (Barker[8], 2002), Cantril and Gordon (1935) emphasised radio as a medium of propaganda: "Through the use of the radio on March 4 and 5, 1933, President Roosevelt unquestionably diminished the force of the financial panic" (1935, p. 21).

One of the qualities of radio refers to 'intimacy', 'personal' – the relation between the speaker and the listener can be assumed as an 'intimate'

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[8] Barker (2002) explains political persuasion in American talk shows and mentions Noelle-Neumann's (1974) spiral of silence in radio.

connection (Fleming, 2009; Shingler & Wieringa, 1998; Starkey, 2013). Although radio broadcasts to the mass population, it reaches out to individual listeners. Crisell (1994) described radio as an "intimate medium" (1994, p. 11). The author refers to this meaning when the radio presenter is talking to 'one' individual, making this person feel unique, but at the same time, in company. The 'mood' of proximity can be strengthened when wearing 'headphones' (Nyre, 2015; Zelechowska et al., 2020). This 'proximity' could be related to 'blindness' (Crisell, 1994, p. 3). The author utilised the term *blindness* because radio requires no visual images, relying on the listener to imagine their own image, which 'draws' on imagination: a personal and a unique picture without physical frames (1994). This characteristic adds to Cantril and Gordon's (1935) qualities of radio as they had already stated that through "the versatility of radio"(1935, p. 267), each listener can produce unique experiences by creating an imaginary picture (see also Rodero, 2012).

The lack of visual cues allows extra imagination and multitasking. However, this 'creativity' could demand additional concentration reaching the path of the primary medium. Stewart and Chantler (2013) recognised the danger of silence in radio: "Nothing sounds worse than a silence after the bulletin… giving the listener the impression that it is the next presenter who is in the wrong by not being ready" (2013, p. 96). However, the authors agreed with the choice of certain silence: "a certain amount of silence is more telling than the words" (Stewart & Chantler, 2013, p. 126). Jensen added this statement: "effectiveness of the command of silence by the radio announcer" (1973, p. 256). Olsen's (1994) empirical research reported that the directors of the advertisement industries consider silence as an effective tool for attention generator. The participants stated that silence is a good mechanism to promote contemplation and to rehearse information as well as to evoke emotions such as sadness, calmness, or intrigue (1994), even though Olsen (1994) warned about the duration of the silence needing to be taken into consideration. This author measured the impact of silence on the retention of information in radio advertising (Olsen, 1995). Listeners reported an enhancement in recalling when there was background silence instead of background music. Olsen (1995)

reported that the position of the silence before or after the advertisement needs further research. Following on with the position of silence in the script, Truax[9] (2001) studied silence as well as other paralanguage when explaining the relationship between sound, listener, and environment. The author discussed the effects of noise and noise pollution in this 'Acoustic Communication', highlighting the level of sound manipulation, above all in commercial radio.

Until now, this article has examined the present situation of the need for perpetual noise, identifying communication as a constant flow of news, information or what Murthy (2013) commented in his book: "often trivially banal short messages (e.g., "mustard dripping out of my bagel sandwich") elevated to "news" (2013, p. IX), displaying little room for silence. In addition, this project narrows the investigation focusing on a sole medium, radio, and examining the role of silence in it. Paradoxically, there is a psychological link (therapy) in communication that is seen in both sections above: 'trauma talk' (Sreberny, 2011) as a need to carry on the noise but at the same time, a 'vacuum' to experience feelings such as closeness, pain, or love (Jaworski, 1993; Rogalsky, 2003).

Methods

This study works towards a clearer understanding of the word 'silence' within modern society because the literature indicates that the media industries are eager to produce constant noise (Truax, 2001; Rogalsky, 2003; van Dijk, 2006). Following on with this concern, there are also views that there is too much busyness in modern lives (DeGreeff et al., 2009; Shir-Wise, 2019). As the literature informs that the media sector strives to eliminate any possible vacuum and so fills it up with noise, the following questions arise: 'What is silence in modern media? specifically and through a radio programme: 'What are the kinds of silence in modern media'?

Based on this current phenomenon, this project adopts a systematic examination of the content (script), offering a categorization of silence

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[9] See Chapter 11 (Truax, 2001) to examine how radio programming formats integrate foreground and background listening habits.

(Neuendorf. 2010). That is why the project required the use of content analysis, identifying patterns through coding and categorisation (Riffe et al, 2014), "develop[ing] an in-depth understanding" (Creswell, 2012, p. 477), underpinned by a qualitative approach with a quantitative nuance (White and Marsh, 2006).

Previous kinds of literature have been focused on different classifications of silence (Bruneau, 1973; Jensen, 1973; Johannesen, 1974; Kurzon, 2007) and previous research has been focused on silence in discussions (Kostiuk, 2012) and the effect of silence in group psychotherapy (Salzberg, 1962). However, there seems to be a gap, in reporting research and analysing silence in media. Specifically, this article focused on a radio programme to concentrate on the audio. That is, the reason for choosing radio rather than television was due to the lack of any visual component. Radio was selected as the unique medium to work with because the sound is intensified as the prime sense (Åberg, 1997), indeed a resilient medium (Starkey, 2017).

Data collection – sampling

After the recognition that radio is the prime example of a medium where hearing is the only sense engaged, and therefore radio requires the audience to concentrate fully on acoustics, a three-month survey (audit) of commercial and public radio programmes was carried out. That is, as the approach was explorative, programmes included different sorts of categories from music, comedy and politics to news and drama. The sample included advertisements too, which raised challenges because, as the literature indicates, modern ethics of production and marketing of commercial programmes demonstrate that producers are reluctant to use silence in advertisements because of two variables: time and money (Nisbett, 2003; Rogalsky, 2003).

The purpose of the audit was to scrutinize incidents of silence. The examples were chosen at random across stations[10], and content as stated above. All of the examples were recorded using Adobe Audition. Each example was transcribed and after thorough analysis and further reflection, it was possible to

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[10] BBC Radio 3 was not considered because of its format and the substantial amount of silence.

identify the well-known Radio 4 soap opera 'The Archers' because of the vast range of meanings of silence that it incorporates in comparison to the other programmes where silence was significantly shorter. Moreover, the radio category of contemporary drama of this long-running series was the prime example because the programme is embedded in the current *idealised* culture of the English countryside, and yet in fact listened to, by this fast-paced society. Indeed, an iconic radio piece, which identifies distinct media representations (Pitt, 2019; Thomas, 2009).

The episode to be analysed was selected at random (there was no preselection of any specific episode) and was broadcast on the 1st of November 2015 titled *Helen is in a World of Her Own*. The episode lasted 13 minutes.

Data analysis

The analysis of the data combined both qualitative and quantitative examination. The study employed inductive reasoning, and the analysis of the radio programme was based upon a structure with several phases. Firstly, the episode selected at random was transcribed verbatim; secondly, the programme was divided into eight scenes. Thirdly, each scene was coded, and words were separated from paralanguage[11] (silence, breathing and other vocal expressions such as *hmm* or *shush*). The timeline was also classified following Gibson and Brown as "indexical transcription" (2009, p. 114). When the transcription of the programme was complete, an emergent coding approach was created in order to organise and compare the incidents where silence occurred (figure 1). This emergent coding (table 1) was based on previous literature (Bruneau, 1973; Poyatos, 2002). Poyatos' (2002) paralanguage classification was adopted differentiating respiratory control (qualifiers) and differentiators. It is important to mention that Burgoon et al (1996) acknowledge Poyatos as the one who established the most elaborate system (1996, p. 63). Bruneau's (1973) psycholinguistic and emotional forms of silence were adopted

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[11] Poyatos (2002) includes qualifiers (breathing control is one of them), differentiators and silence as part of paralanguage. However, Bruneau (1973) offers a detailed article on the forms and functions of silence.

to specify the form of silence. The reason for choosing Bruneau (1973) was based on his classification highlighting linguistics within psychology.

Figure 1: An incident of the analysis of the programme (2nd scene)

01:05.2	01:06.2	00:01.0	did you hear a noise outside?	WRD
01:06.2	01:06.5	00:00.3	(silence)	PAI
01:06.5	01:07.1	00:00.6	(breathing)	BRM
01:07.1	01:08.1	00:01.1	(silence)	PAI
01:08.1	01:09.5	00:01.3	I I left (())	WRD
01:09.1	01:09.1	00:00.1	(silence)	PSY
01:09.1	01:09.5	00:00.3	them (())	WRD
01:09.5	01:10.2	00:00.8	(silence)	INT
01:10.2	01:10.4	00:00.2	what?	WRD
01:10.4	01:10.5	00:00.1	(silence)	PSY
01:10.5	01:11.1	00:00.6	shoes	WRD
01:11.1	01:12.4	00:01.3	(silence + eh? from 1:11.662 to 1:12.000, length 0:00.337)	IPL
01:12.4	01:13.1	00:00.7	what shoes?	WRD
01:13.1	01:13.2	00:00.1	(silence)	PSY
01:13.2	01:14.0	00:00.8	I don't know	WRD
01:14.0	01:15.1	00:01.1	(breathing)	BRE
01:15.1	01:15.7	00:00.7	hmm	PLG
01:15.7	01:16.3	00:00.6	(breathing)	BRM
01:16.3	01:17.4	00:01.1	there're under the tree	WRD
01:17.4	01:17.7	00:00.3	(silence)	PAI
01:17.7	01:18.5	00:00.8	(breathing)	BRM
01:18.5	01:18.7	00:00.2	(silence)	PAI
01:18.7	01:19.3	00:00.6	OK	WRD

This episode was structured into eight different scenes. Each scene has been separated, based on the identification of distinct elements of the storyline. The use of 'silence' during this episode was used to add emotional significance, creating 'pictures' without using the sense of sight. It is important to mention the use of 'silence' to frame the 'pictures'. Silence occurred without any prior notice of its meaning. Silence and breathing have acquired different coding from paralanguage for the purpose of this study.

Table 1 Coding based on the radio programme

BMM	Breathing (meaningful) + music
BRE	Breathing (essential)
BRM	Breathing (meaningful)
EPL	Breathing (essential) + paralanguage
INM	Silence (interactive) + breathing meaningful
INT	Silence (interactive)
IPL	Silence (interactive) + paralanguage

MPI	Breathing (meaningful) + both silences (P&I)
MPL	Breathing (meaningful) + paralanguage
MUS	Music
PAI	Both silences (psycholinguistic + interactive)
PLG	Paralanguage
PPL	Silence (psycholinguistic) + paralanguage
PSY	Psycholinguistic
SPL	Both silences + paralanguage
WBM	Words + breathing (meaningful)
WIN	Words + interactive
WMU	Words + music
WPA	Words + silence (psycho & interactive) + paralanguage
WPI	Words + both silences
WPL	Words + paralanguage
WPS	Words + psycholinguistic
WRD	Words
XXX	Indistinguishable noise

Findings

During the introduction to the episode, silence was used to accentuate the popular soundtrack as well as the name of the soap opera. In this part of the episode, silence occurred with the same frequency as spoken words (40%). The rest (20%) was music.

In the first scene (*Jill and her unrestful night*) The scene was based on silence and paralanguage: (12% and 47% respectively) which seem to cause

interpretations of fear and intrigue. Significantly this scene was composed of only 17% spoken words (WRD).

The second scene (*Helen's sleepwalking and Rob's dominance*) continued to use silence (22%) and paralanguage (14%) to frame the scene. As part of the second scene, a windy night outside the house exposed serious tensions between the characters, showing worry and confusion: *'I … I ['m] sure I left them …. What are you doing? …' (00:58.300-01:04.000)*. In addition, silence appeared to show reflection and lexical search before answering the questions. In the second scene, spoken word coding (WRD) occurred as 37% of the whole.

The duration of the third scene (conversation related to farm issues) was two minutes and 16 seconds and contained three parts. The scene takes place on a farm and so, it is possible to hear a great number of sound effects, such as noises from animals, tools, and tractors (PLG). The first part of the scene was marked by the presence of silence as a marker of communication but also the space created by the silence indicated irony and annoyance. In the second part of the episode, silence indicated worry, stress, and nervousness, and in addition, silence was used indirectly to suggest that the character was 'waiting for an answer' (marker of communication). However, another example included in this scene showed how silence is so versatile when this space can mean 'looking for an agreement': *'but if I do it now … and you don't mind having lunch later than usual' (03:02.800-03:07.300)*. The last part of the scene used silence to show 'annoyance': *'until someone does another shop … breathing … ' (03:46.900-03:50.300)*. At this point, words coding (WRD) reached 40% the highest level in the whole programme.

The fourth scene is framed in a different environment (Helen and Rob's conversation about well-being and pregnancy). The sound of crockery (PLG) makes listeners allocate a different picture from the previous set. The conversation between the only two characters is particularly distinguished because of the use of silence, not just to mark the pace of the conversation but

to show disagreement: *'We didn't exactly meet up …' (04:51.700-04:53.400)*. Words coding (WRD) made up 27% of this section.

The fifth passage begins with the background noise of a pub in order to set the scene (friend characters in a pub talking about relations). The paralanguage showed emotions such as '*shush shush umm well … '* (06:08.400-06:10.000) to keep others quiet and provoke suspense. On its part, silence might suggest intrigue: *'well … if you … come over here (07:25.700-07:28.000)'*. Words coding (WRD) amounted to 24%.

During the sixth scene, the sound of crockery allows the listener to frame the scene (Helen and Rob continue talking about pregnancy, well-being and domestic matters). Breathing is one of the elements which creates and conveys much information. The breathing constituted a significant element of the scene and its meaning. The frequency and the tone of each breath bring connotations to the conversation between the characters. Another meaning of silence is interpreted as disagreement: *'Rob I am fine ah ah ah ah …' (08:31.500-08.33.300)*. Word coding (WRD) comprised 37% of the whole scene.

The seventh scene created the impression of a fast-moving atmosphere, the conversation appeared fast due to the background noise and the friendly conversation between some of the characters at the pub. This friendly ambience increased the challenge of isolating the elements of communication. For example, in the segment 09:32.200-09:35.200, words were mixed with silence: *'O (gap from 9:32.525 to 9:32.720, length 0:00.194) (.)… k! That's too much information, Uncle Kenton!'*. The millisecond silence translated into embarrassment, excitement and happiness at the same time. Another meaning of emotional silence (enthusiasm and nervousness) appears on 09.16.600-09.18.300 *'Ok! … here it goes! … and breathing'*. Word coding (WRD) reached 34%.

Regarding the last scene, a typical setting where one member of the couple arrives home with the child and the other half is at home (Helen and Rob's discussion). It is significant to highlight the silence as waiting for an answer and silence as disagreement (10:51.300-10:51.500) but also the breathing as an

annoyance (10.49.900) because the partner does not want the mother (his partner) to be disturbed by her child. The final element of communication is poignant: the male figure breaths out to show power. His tone throughout the scene connotes attitudes of malevolence. Word coding (WRD) reached 31%.

The combined scenes aligned with Birdwhistell (1970) who stated that no more than 30 to 35 per cent of communication is carried out by words. This graph shows 33% of words.

Figure 2: Graph all scenes
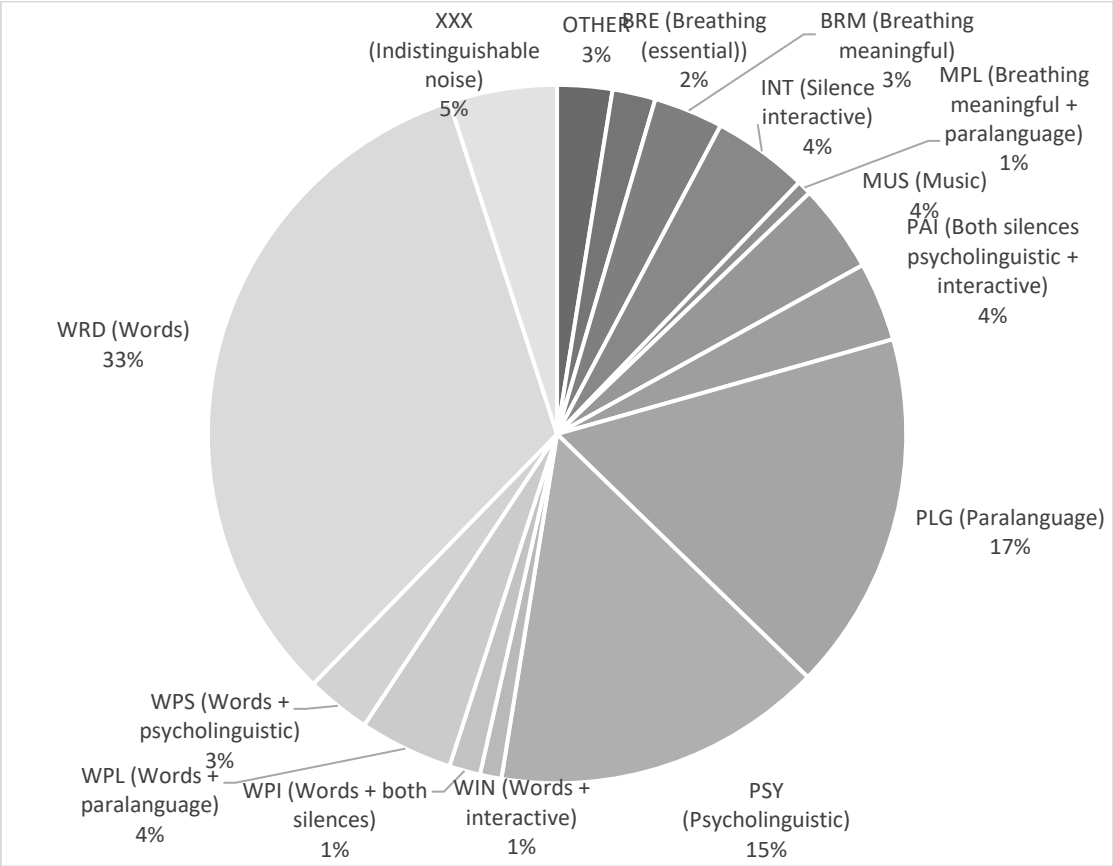
The initial purpose of this method was to find silence as part of the communication, but the detailed analysis offered deeper meanings, more than just linguistic meanings. That is, based on Poyatos (2002) and Bruneau (1973), the analysis of the radio programme indicated that despite the need for creating sound, silence is found and stays between the words, musical notes, sighs, and

breaths. Even more, the different meanings of silence exemplify that silence is used in a radio programme – not only employed as a need (figure 3) but also to generate feelings and 'create pictures' (figure 4).

The first theme refers to silence as a pointer of communication, regulating the conversations.

Figure 3: Pointer of communication (indicative list)
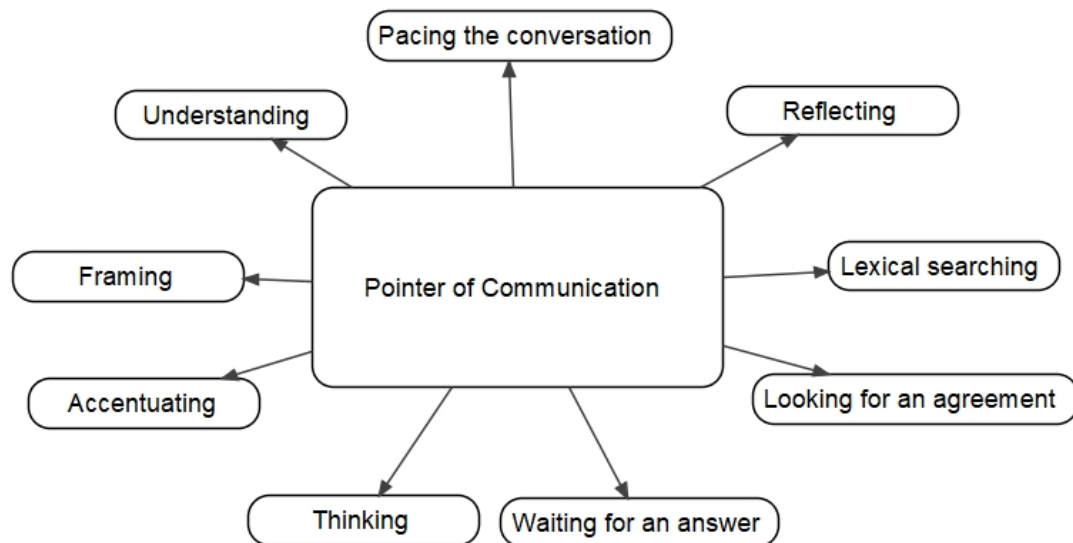
The second theme determines the different notions of silence in relation to feelings and attitudes. Some of these concepts mean vastly different (happiness – fear). This encounter goes a step further into the perspectives of silence. That is, in addition to the acknowledgement that silence is needed in any conversation (controlling the pace and for breathing purposes), this radio audit brought deeper connections between the self and one's emotions through silence.

Figure 4: Emotions (indicative list)
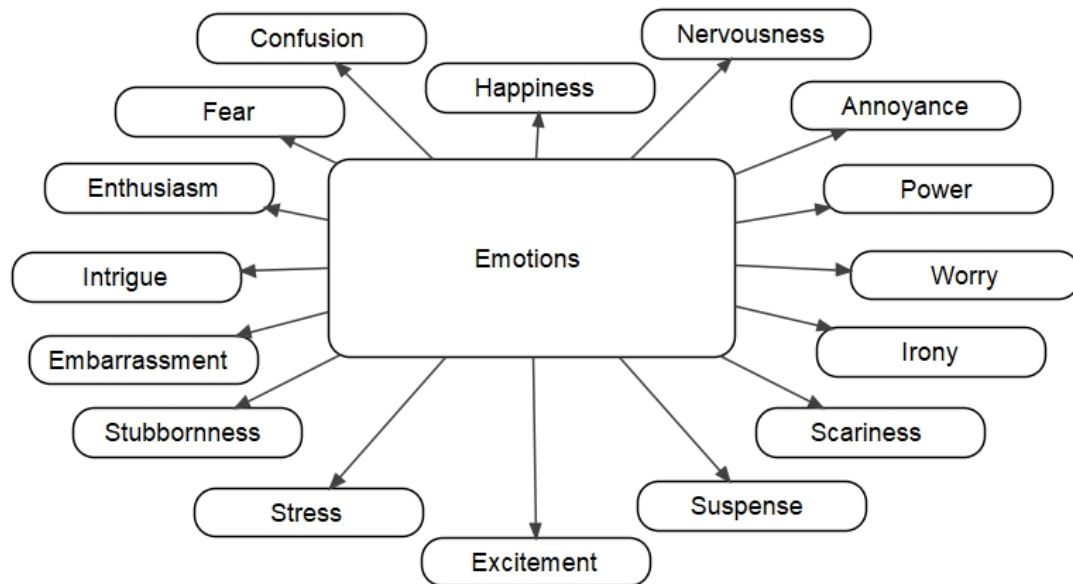
Discussion

By exploring silence in a radio programme, this article suggests that silence is part of the communication despite the ongoing sounds of a fast-paced society (see communicative abundance, Keane, 2013). Silence is perceived not just as a controller of communication but also as a communicative element which offers additional perspectives and meanings for society (Bruneau, 1973; Jensen, 1973; Poyatos, 2002). That is why, the theme 'emotions' (figure 4) is the one which is going to be discussed further. A reflective examination of silence determined multiple meanings closely embedded within both 'psychological' and 'socio-psychological' scopes.

Psychological scope

The term 'silence' seems to indicate a great association with the word 'emotion', one of the meanings which has been most commented on in the methods section. This feeling immediately sustains a negative element (Figure 4). The concept of 'fear' or 'scariness' might also bring 'confusion' and 'worry'. For example, the spaces of silence between breaths and a few words in the radio piece (*scene 1 ('breathing and sound of the night') come on (silence) Jill don't*

be silly ('breathing and sound of the night)) showed the feeling of nervousness and anxiety as well as curiosity. At the same time, the listeners can 'feel' themselves near to the scene – linkage silence (Jensen, 1973, p. 249) – despite the distance. However, this silence can 'wound' the listener – affective silence (Jensen, 1973, p. 251) because of the 'coldness' of the scene (the first scene when the character was afraid during the night). However, the 'intimacy' of radio (Crisell, 1994) could make the listener closer to the character and provoke positive emotions and an intimate listening experience (Chignell, 2009; Shingler & Wieringa, 1998) such as beneficial performance reflecting on the feeling of embodiment and connectivity (Kallinen & Ravaja, 2007; Nyre, 2015).

Drawing on the feeling of fear and scariness, particularly interesting is the capacity to produce reactions such as loneliness when hearing silence. This could be related to Sreberny's (2011) theory on "trauma talk." Furthermore, the reflection on the connection between silence and loneliness brings attention to the phenomenon of synaesthesia, in particular, auditory-tactile (Ward, 2007) where the sense of hearing connects with the nervous system (Rothen et al., 2017). This neurological condition allows the stimulation of one sense to produce a second sensory stimulation. Further studies into silence and its neurological impact could have a knock-on effect on media behaviours, for example, FOMO (Herman, 2000; Rozgonjuk et al., 2020). Silence can add more feeling to this intimacy and even stimulate the imagination (Greenfield et al., 1986; Nisbett, 2003) – the 'picture' that each listener is able to create. An example of this is Harold Pinter's 'picturesque' plays (Pinter, 1991). Apart from silence as a framer of space (Jaworski, 1993), silence can generate creativity (Cantril & Gordon, 1935) and the listener can imagine and create their own particular scene (autonomy, individuality) (Crisell, 1994; McLeish, 2005).

Furthermore, silence can mean 'annoyance' (Jensen, 1973). The space left without hearing 'noise' can make the individual anxious (emotion). The first scene of the radio programme offers 'confusion' and 'stress' between the main character and the self. However, silence can offer positive meanings such as happiness and excitement (scene 7 '*He-ello? (silence) (laugh) so where is this anniversary present? Oh you really don't wanna know mum (silence) oohmmm*

(silence) oh go on show them (silence)'). As Zeligs states, silence can mean "yes or no" (1961, p. 8), it could *imply* love or hatred. The emotion 'annoyance' will be explained more in detail in the next section (Socio-psychological).

Most of the meanings explored in this article refer to emotions and feelings, having a connection therefore with the 'brain' (cognition) (Rogalsky, 2003). Ancient philosophers had already mentioned the need for silence in order to reflect (Augustine, 1948; Plato, 1999). When the listener hears 'nothing', the brain receives a positive stimulus, but the brain can also reject it.

Before explaining the next scope, the space left as a separation between different conversations and different environments could 'frame' the scene (Poyatos, 2002) (figure 3) but at the same time, this 'gap' could convey psychological implications. The issue might appear when some radio listeners started to listen to the programme later and cannot hear anything. This situation could have a negative effect, for example, the listener would rather turn the radio off. A similar situation might occur when 'waiting' (Tallis, 2014). Some listeners would not be interested in waiting, some other listeners would not cope with waiting, meaning a gap, a delay in their busy lives. However, others would turn that 'space' into an opportunity to carry on with other tasks, to reflect, to meditate or even to create and to imagine (Bruneau, 1973; Hargreaves et al., 2012). This encounter where some listeners are not able to 'wait' can be linked to 'the anticipation' by, for example, the service BBC Sounds (BBC, 2018) which allows us to 'fast-forward' and even to 'skip' seconds depending on one's preference. At the same time, silence can encourage us to be more conscious of ourselves, indeed a sense of connectedness within the self relates to mindfulness and therefore, well-being (Brown & Ryan, 2003).

Socio-Psychological scope

Having explored the 'individuality' of silence along with the psychological experiences that this silence manages to convey, the findings of the radio example and literature add further reflection on the values of silence when the person reacts to others.

The previous section explains that the meanings of silence, such as fear and annoyance are related to 'discomfort', not just from the speaker but also the listener could be affected (Smirnov et al., 2019). Even more, this feeling can turn into 'confusion' from the listener who is unsure about what the problem is but recognises ('silence reveals') that there is an issue between both individuals (Kurzon, 1998). The 'annoyance' emotion could mean disagreement towards another person (scene 8 '*your priority is (silence) to look after yourself (silence) and our (silence) baby (silence and breathing) you know I'm right (silence) don't you?*') not just a reaction with the inner self but with the other individuals (Socio-psychological). Indeed, silence could indicate that a person is quiet because he/she does not want to get into an argument, but this reaction could additionally reveal issues related to dominance and indeed, power (Keane, 2013; Williams, 2002). The example taken from the radio piece provides evidence through the male character's silence of his malevolence towards his partner, leading to the current issue of domestic violence. The use of silence by the female character suggests a 'loss of power', whereas her partner's silence indicates 'authority' (Fivush, 2010).

Apart from this challenging example which creates debate in the present society, these meanings of silence (domination and subordination) are found in politics and media - influencing the audience (Soules, 2015; Street, 2011). Coming back to Bruneau's article, the author reported: "Much political power, then, appears to be derived and, even more, maintained by how silence is used" (Bruneau, 1973, p. 39). Bruneau's (1973) example refers back to Tocqueville (2008) and his reflections about the Christians who knew they needed to keep silent about their beliefs but go along with the majority in order to protect themselves and avoid aggravating those in power. That is the silence in politics, an element of rhetoric which shows strategy, control (Brummett, 1980) and "censorship" (Nakane, 2012, p. 160).

In addition to politics, Jaworski et al (2005) state that repetitive noise is broadcast in order to avoid silence. With the example of catastrophic news, Mellencamp (1990) reflected on the meaning of continuous noise instead of silence as a 'process of therapy' (1990, p. 246). This situation can be

understood as silence *being cold* and depicting loneliness, rather than what people could need in such moments: presence and company. This idea seems contradictory in relation to positive meanings of silence such as happiness, calmness, and quietness. For example, silence as healing and protection when someone does not trust another person and employs the intimacy of silence to create a space or a shield of protection, Jensen's affecting function of silence (1973). Moreover, shared silence is another time when silence is appreciated in company: silence as respect is still highly common in current societies, for example on occasions of remembrance or commemoration of those who died in wars (Bruneau, 1973; Kurzon, 2007).

Conclusion

The purpose of this study was to explore the phenomenon of silence in the current culture because present literature and observations indicate that noise in the environment is exploited due to the fast-paced society and therefore, silence can be 'less appreciated'. In the middle of this current noisy atmosphere with social media offering so many options, it may be challenging to acknowledge the media impact and its effects (Happer & Philo, 2013). However, learning how to employ silence not just in media, but in other aspects of one's life, suggests positive prospects for the individual's own purposes. That is, this article becomes a 'pilot study' of 'the silence phenomenon' which opens further research in media and cultural studies as well as in psychology and health.

The fact that this research project has employed an individual sample can be seen as a limitation. Further episodes of the radio drama and even additional radio drama programmes could strengthen the findings and even add supplementary results. Throughout the coding, music and effects were highlighted. However, the analysis of atmospheres and dialogue could be extended following van Leeuwen (1999) and the interaction between speech, music and sound. It should be mentioned that the analysis of the radio programme was executed by one researcher although two academic doctors from different universities supervised and examined this work.

As the programme has been broadcast since 1951, a longitudinal study of the radio drama at different times across history would offer more knowledge about the elements of communication (as well as the whole production). Even more, another study could be organised to interview producers responsible for the editing decisions. Furthermore, it is recommended that other radio genre programmes such as news and interviews are analysed so less dramatic editing can be reported.

It is imperative to state that even though this research project worked towards being confident in silence, this article does not promote silence when words are needed. In fact, Noelle-Neumann (1974) and Tocqueville (2008) explained the spiral of silence because of fear despite beliefs, and therefore, silence is not honourable (Smith, 2014). Particularly, the radio programme echoed the situation in real life to show that it is not honest to keep silent but to be brave and speak up (authority and fear when abuse is experienced).

The analysis of silence reinforces the awareness of gaps in the conversation and its significance, not just as an indicator of communication but as an emotional cue (Rogalsky, 2003). If media staff, not just producers but also writers and presenters, use silence and recognise more of its qualities, they will be able to develop new modes of communication, examining further media behaviours and media effects.

As the radio data evidences, silence allows and encourages imagination and creativity. The increase in the practice of mindfulness is an example of the use of silence to promote calmness and stillness, learning to be comfortable with the self while silent, which suggests benefits in health (Brown & Ryan, 2003). This communicative technique is used in psychology, for example, in the treatment of anxiety and stress as well as a tool in therapy (Lane et al., 2002). As can be seen in the radio programme, silence communicates multiple and contradictory feelings. This suggests a connection between media studies and psychology. This research project encourages further study of types of silence in order to offer a systematic taxonomy of silence which could be employed in both disciplines.

Acknowledgements

Ethical approval statement

Ethics approval was not required for this study. However, ethics approval was granted by the University College London.

Author's contribution statement

LMGM is the only author of this manuscript.

Data availability statement

The data that support the findings of this study are available on request from the author

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