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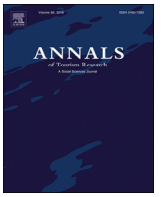

The future of deaf tourism studies: An interdisciplinary research agenda

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ABSTRACT

In this conceptual paper we aim to provide a critical interdisciplinary theorisation of deafness from phenomenological and post-phenomenological perspectives. We argue that in studies of tourists' embodied experiences, the sonorities of travel have been rarely explored. We suggest that a consideration of the role of sound, and by extension deafness, within tourism studies can lead to a more nuanced and critical approach to the multiplicity of sensory capabilities that are exercised in tourists' experiences of travel. We conclude with a proposed research agenda for deaf tourism studies that reconsiders epistemological and technological approaches. Overall, we seek to contribute to current debates in tourism predicated on understanding "deafnesses" across time and space.

Introduction

Our exegesis of the tourism literature on embodiment has revealed a chasm in theorisations of deaf travel. Studies in tourism which focus on embodiment have problematised traditional occularcentric approaches by promoting a wider range of sensory experiences and performances in tourism (Jensen, Scarles, & Cohen, 2015; Rakić & Chambers, 2012) and within this genre also there have been limited discussions on the importance of sound and the aural to tourists' experiences (Wilson, Chambers, & Johnson, 2019). Nevertheless, it is still pertinent to suggest that in tourism, occularcentrism has dominated studies of tourists' embodied experiences while the sonorities of travel have been rarely explored. We contend that a consideration of the role of sound, and by extension *deafness*, within tourism studies can lead to a more nuanced and critical approach to the multiplicity of sensory capabilities that are exercised in tourists' experiences of travel. Indeed, Joachim-Ernst Berendt (1985) in his book *The Third Ear* (1985) argues that the primacy of visual terms of reference limits our imagination, and he suggests that the account of human experience needs to be rendered through what he calls "a democracy of the senses" (ibid., p. 32). Indeed, while tourism is traditionally described through the visual encounter, it is important to focus on other sensory aspects of human experiences, which, while informed by the visual, are not solely determined by it.

Interdisciplinary work in tourism on deafness and the complex sensual experiences of deaf tourists remains limited (Jain, Desjardins, Findlater, & Froehlich, 2019). Instead, what exists are a multiplicity of largely managerial studies on the disabled tour-

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ist with primary focus on those with physical disabilities (mobility impairments) (Agovino, Casaccia, Garofalo, & Marchesano, 2017; Blichfeldt & Nicolaisen, 2011; Darcy, 2002) and to a lesser extent, visual impairments (Lam, Chan, & Peters, 2020; Mills, Han, & Clay, 2008; Small, Darcy, & Packer, 2012). There are a plethora of studies that seek to address the problematics associated with accessibility for the disabled tourist from both a demand and supply side perspective, drawing on case studies primarily from the countries of the Global North (Agovino, Casaccia, Garofalo, & Marchesano, 2017; Buhalis, Darcy, & Ambrose, 2012; Darcy & Pegg, 2011; Eichhorn, Miller, Michopoulou, & Buhalis, 2008; Israeli, 2002; Ray & Ryder, 2003; Shaw & Coles, 2004). We suggest that these studies have often adopted a rather uncritical, disembodied managerialist perspective, utilising quantitative (surveys) and qualitative (interviews, focus groups) methods with disabled persons and with managers and operators of tourist facilities.

We describe these studies as 'managerial' as they are primarily aimed at providing recommendations for managers of tourism and leisure businesses on how to improve accessibility to products, services, and information for the disabled tourism/leisure consumer. Further, while many of these studies embrace the social model of disability and some even espouse 'emancipatory' objectives, they nevertheless tend to view disabled consumers as a homogenous group (see McKercher & Darcy, 2018) and as a largely docile actor in need of improved accessibility (Ceccarini & Prandi, 2019; Milicchio & Prosperi, 2016; Vila, Darcy & González, 2015; Zajadacz, 2014). In other words, underpinning these studies are normative views of disabled persons as requiring 'normalisation' through the removal of barriers. Further, as stated previously many of these studies focus on physical disabilities (mobility impairments) and more limitedly, visual impairments.

However, there is a dearth of research in tourism which focuses exclusively on deaf subjects. Here we interpret 'deafness' in several ways – to refer to prelingually profoundly deaf people (a small minority of the population), to those who have partial hearing/are hard of hearing and to those who experience hearing loss in later life (Gregory & Hartley, 1991; Ladd & Lane, 2013). Deafness then can be broadly understood, and, in this regard, it is said to be the third most common disability in the world (British Deaf Association, 2022). The World Health Organization reports that deafness or 'hearing loss' currently affects more than 1.5 billion people worldwide (World Health Organization, 2021). It is estimated that by 2050 nearly 2.5 billion people will not be at optimal range of hearing (World Health Organization, 2021). Moreover, in another sense, Davis (1995) describes deafness as a modality and not a disability. He argues that "to be alive and thinking in the 20th century implies that you have performed a lot of non-oral/aural activity" (Davis, 1995, p. 4). Deafness then, might thus be perceived as part of everyday life, as central to being human. It is against this background that a deeper and more critical understanding of deafness and its relevance for tourism, which has become a widespread phenomenon in our social world, is warranted. Yet, as mentioned, critical articulations of deafness in tourism are scarce.

We believe this to be an interesting lacuna for two reasons. First, where deafness is mentioned, it is seen as an example of a sensory impairment/disability. There is very limited discussion of the specific meanings and rich lived experiences of deafness, nor is there any unpacking of how deafness has come to be defined as a disability especially when many deaf persons do not see themselves as disabled and in fact seek to distinguish themselves from other disabled persons (Davis, 1995; Padden, 2005). Indeed, some argue that deafness is just another way of being human, which is equally valid, and sign language studies have illustrated that it is not sound that distinguishes human language but neuronal/brain plasticity (Bauman, 2008). Second, almost 30 years ago, Davis (1995, p.4) contended that the creation of a binary between deafness and hearing has no basis and was constructed as "part of an ideology of containment and a politics of power and fear".

Our aim in this conceptual paper is threefold. First, we provide a critical review of the existing *knowledges* on deafness and how this has been conceptualised in sociology and more recently, within tourism and related studies. This critical exploration is aimed at exposing the ontological and epistemological underpinnings of deafness and tourism and provides the tourism research community with a rigorous and up-to-date review of existing research on deafness. Second, we problematise how the embodied experiences of deaf tourists can be understood anew first through the lens of phenomenology and then beyond this through post-phenomenology which can account for the role and effects of technological mediation in deaf 'perception'. In this sense we suggest that post-phenomenology can highlight the role of *technologies* within deaf tourism studies, providing a new prism to unpack the problems and potentials of deafness as a sensory condition. From this discussion, comes our third aim which is to propose an interdisciplinary research *agenda* for deaf studies in tourism that reconsiders new epistemological and technological approaches to future empirical studies of the sonorities of travel and tourism. This paper is based on a recognition that deaf travelers do not traverse in silence but are immersed in the ubiquitous presence of sound. As such, we propose to open new ways to conceptualise acts of decipherment that do not conform to the standard tropes of sensory awareness.

Sociologies of deafness

For several decades, sociological inquiry has been interested in the role of the senses in constructing social relations and in sustaining social systems. A dominant sub school of sociological research has traditionally explored hearing impairment as a disability woven into the ordering of everyday life as Higgins recounts:

> Much of everyday life is based on the assumption that people can hear and speak. We communicate through telephones, radios, television, intercom systems and loudspeakers. Warning signals are often buzzers, sirens, or alarms. Time is structured by bells and whistles. And, of course, people talk. Our world is an oral-aural one in which deaf people are typically left out (Higgins,

> 1979). They are outsiders in a hearing world (Becker, 1963). And like other outsiders, they are likely to create and maintain their own communities in order to survive and even thrive within an often-hostile world (1979, p. 3).

Set within the social model of disability such research recognises how the audiological position of deaf subjects makes them vulnerable and marginalised within a 'hostile' and phonocentric society. The social model of disability is said to have emerged in the 1970s commensurate with the movement for civil rights in North America and conceptualises disability as a social construction (Shakespeare, 2013). That is, the problems faced by disabled people result from social oppression and exclusion and not from any individual deficits that disabled people have (Shakespeare, 2013). Brisenden (1986) view cogently reflects the social model of disability:

> it is in fact the posture of society at large that constitutes the most disabling part of being disabled, not the physical effects of whatever condition one happens to have… On the whole, it is the organization of society, its material construction and the attitudes of individuals within it, that results in certain people being *dis-abled* (emphasis in original) (1986, pp. 175–176).

The social model contrasted with the earlier bio-medical model of disability which framed disability as an individual deficit, as an individual pathology. Fisher and Goodley (2007) locate the bio-medical model, which focused on rehabilitation and restitution for disabled persons, in the 19th and 20th centuries. Bio-medical models separated disabilities from everyday life and invested power in those from the medical profession who exercised hegemony over discourses of normality and abnormality (Fisher & Goodley, 2007). However, the social model of disability, while seen as crucial to disability discourse and praxis has been critiqued on several fronts including its negation of individual impairments which are an important aspect of the lives of disabled people, and the difficulties in distinguishing between impairments (bio-medical) and disability (social) (Shakespeare, 2013). Thus, we see the emergence of the biopsychosocial model of disability which frames disability as both an individual and social phenomenon (Rubio-Escuderos, García-Andreu, & Ullán de la Rosa, 2021).

However, arguably, it is the social model of disability which has framed understandings of deafness in contemporary societies. In this regard, some strands of research specifically 'zoom in' on the emotional consequences of hearing impairment in everyday life (Bowlby, 1980; Meadow-Orlans, 1985; Ostby & Thomas, 1984). Disturbed communication is by far the most common consequence reported by the hearing impaired (Danermark, 1998). Emotions like anxiety, reduced satisfaction, negative self-image, irritation, and embarrassment are examples of emotions caused by hearing impairment in adulthood. Against this background, sociological focus is often on the politics of deafness in a world of sounds; on achieving greater public awareness and accountability of manufacturers and service providers in delivering hearing services; and on developing more sensitive social policies for the hearing impaired and deaf communities. In other words, focus is on informing and enhancing a 'governance of deafness' that caters for hearing services and the improvement of acoustic accessibility in public spaces (Hogan, Phillips, Brumby, Williams, & Mercer-Grant, 2015).

Meanwhile, critical commentaries have cautioned the tendency to victimise deaf subjects for their audiological impairment as it reinforces a public image and a social position of deaf subjects as disabled actors within societies largely formed and controlled by able-bodied actors. According to Obasi, 2008:

> The fact that the disability movement is complicit in the construction of Deaf people as disabled also carries weight in maintaining this label in the legal, political, and social arenas of the wider society. It adds a valuable contribution to hegemonic depictions of Deaf people as disabled. It cements the allegiance of the hearing disabled and nondisabled majority that excludes the Deaf cultural discourse (2008, p. 457).

The dominant construction of deaf people as disabled centers solely around their audiological position, which is measured in relation to the hearing majority. This is a negative connotation that elides the positive value of the language, culture, and identity that deaf people acquire because of extended social relationships within these communities (Ladd, 2003). In other words, they live in a world which is "not of their making but one which they must continually confront" (Higgins, 1980, p. 22). Like "prevailing racist and sexist ideologies, 'disabilist' assumptions form the everyday reality of deaf people's lives" (Jones & Pullen, 1992, p. 190).

Atherton, Turner and Russell (2001, p. 36) argue that many deaf subjects see their deafness as "a characteristic they have rather than something which is missing or has been lost". Positive approaches to deaf identity, on the other hand, have already taken shape as observed by Shakespeare (2006) in his recognition of terms such as "Deaf power" and "Deaf pride" as slogans for political mobilisation within the deaf community. Indeed, it was Woodward (1972), a sociolinguistics scholar, who argued for the capitalisation of the word 'Deaf' to distinguish deaf people as a cultural group held together by a unique language – sign language. This move from 'deaf' to 'Deaf' served as a marker for deaf identity and a rejection of the normalisation of deafness as a disability (see Friedner & Helmreich, 2012). Similarly, Bauman (2008, p. 1) suggests that this moved deafness from a "pathological state of hearing loss to the cultural identity of a linguistic minority". In this context, social identity theory presents a useful organising framework to understand Deaf identities. Social identity theory frames aspects of individuals' self-concept in relation to their membership of a social group, including the values and emotional significance attached to that membership. The extent to which identification with Deaf cultures (e.g., through a common sign language) results in competition and conflict

with other social identifications (e.g., hearing communities; deaf communities in different geographical contexts), that is, intergroup relations, is of interest to social identity theorists (for a more extensive discussion of social identity theory see Tajfel, 2010; Turner, 1975).

However, researchers in Deaf Studies like Davis (2008) argue for a 'postdeafness' which rejects deaf identity politics ("deafnicity") as implicating deaf people into the most deleterious effects of identities which are based on a seemingly homogenous cultural or ethnic grouping. Indeed, Davis (2008) deems identity thinking as a 'dead end' which the deaf community should reject due to its negative effects. In this paper we have not capitalsed the word 'deaf' unless we are reporting on literature that perceives deaf subjects as forming a distinct cultural group. This is because we wish to avoid the homogenisation of deaf subjects which we go on to argue later marginalises some deaf communities including in the Global South. The marginalisation of many deaf communities in the Global South is evidenced by their linguistic oppressions including their illiteracy and the devaluing of indigenous sign languages (McEwan, 2020). Marginalisation is also compounded by the dearth of knowledge and understanding of these communities especially from indigenous perspectives. In this regard, DeClerck (2011) in his study of deaf communities in Cameroon, speaks of the need for epistemological equity or epistemological decolonisation (see Chambers & Buzinde, 2015) which grants equal status to deaf (indigenous) knowledges.

That said, we acknowledge the value of the emancipatory discourse that developed around Deaf cultures and that has progressed over the past few decades (Bauman, 2008; Ladd, 2003; Lane, 1992; Padden, 2005; Woodward, 1982). This emancipatory discourse disrupted the traditional ways in which language, perceived solely as speech/oral, was the main conduit through which knowledge about the world was produced, leading to the dehumanisation and marginalisation of deaf subjects. This emancipatory discourse celebrated a distinctively Deaf culture in which knowledge about the world in visual-manual ways was seen as having equal legitimacy. Bauman contended that "our historic disregard for manual languages has formed its own blockage. Not coaxed down the pathway of signing, language has opted for speech" (2008, p.2). Yet, this emancipatory approach to deafness has not, arguably, been significantly embraced within wider emancipatory movements, more mainstream social theories, or within tourism studies on deafness as we will discuss in the next section.

Deafness and tourism studies

In tourism research deafness has scarcely been explored except as a minor aspect of investigations in early studies of tourism and disability, and in the context of the more recent and much more prolific phenomenon of accessible tourism. Exceptions to this are found in the work of Zajadacz (2014), and Zajadacz and Śniadek (2013) which examine the Polish Deaf community. Zajadacz and Śniadek (2013) explore the tourism activities of deaf Poles while Zajadacz (2014) argues that the barriers to participation in leisure travel for the deaf community are predominantly interactive. These authors advocate for the use of sign language in tourism information and the active participation of the deaf community in the process of creating Tourism Information Systems. There is also the work of Werner, Kempf, and Corinth (2019) who examine demand and supply issues in deaf tourism and that of Ho and Peng (2017) who investigate the travel motivations of hearing-impaired backpackers from Taiwan. In a publication by Jain et al. (2019), Jain, who is hard of hearing, presented an autoethnographic account of his own travel experiences which revealed difficulties and tensions including having social conversations, navigating unfamiliar environments and cultures, and experiences with personal assistive technologies.

Most recently in a leisure context, Jamieson and Todd (2022) made the case for a D/deaf festival in Edinburgh as a performative space for the affirmation of Deaf culture. The social model of disability is reflected in these publications although a recent bibliometric study on the state of the art of accessible tourism, while not specifically focused on deafness, acknowledged the dominance of the social model, but noted the emergence of more multidimensional understandings like the biopsychosocial model of disability (Rubio-Escuderos et al., 2021).

However, outside of these handful of studies we were unable to identify any other publications in the mainstream accessible/disability tourism literature which focuses solely on deaf tourists and their embodied experiences of travel through space and time.

Outside of the mainstream tourism literature we located a few studies which center on the deaf tourist. Haualand (2007) draws on Victor Turner's concept of communitas to analyse the plurality of experiences of deaf tourists who attended the Deaf World Games held in Rome in 2001 and concludes that these Games represented a site for the negotiation and identification of core values in the deaf community. However, as previously noted, this notion of a 'Deaf communitas' or a homogenous 'Deaf culture' has been disrupted to expose inherent power dynamics. For example, in an interesting analysis of deaf tourism to the Global South (specifically Ghana and India), two deaf anthropologists Friedner and Kusters (2014) examine how the practice of tourism enabled the circulation of the discourse of 'deaf universalism'. They critique the notion of 'DEAF SAME' which suggests the existence of a universal deaf community regardless of the differences between deaf persons occasioned by geography, class, race, religion among other characteristics. According to Friedner and Kusters the concept of "DEAF SAME":

> can be used strategically to either foreground or obscure power differentials…in this sense we view "DEAF SAME" as a discourse that produces certain affects and effects. That is, it produces both feelings and relationships, and it produces an imagined universal ideal moral sphere in which differences between deaf people are put aside. This sphere in turn produces and engenders the discourse of deaf universalism, or the idea that deaf people everywhere share the same experiences, ideals, and aspirations (2014, p. 2).

This argument from Friedner and Kusters (2014) disrupts the notion that there exists a specific 'Deaf culture' which is cohesive, and which therefore sets deaf people apart in the wider context of disabled people. Indeed, Ladd and Lane (2013) argued that in the United States intra-deaf racial and class oppression are largely underexamined. In similar vein, a study by Moriarty (2020) of the ideologies of sign language at a deaf tourist site in Bali found that there were concerns about the extent to which local sign languages might be contaminated by foreign sign languages. Moriarty argues that:

> Concerns about sign language vitality reflect the power differentials involved in deaf (im)mobility and the movement of certain sign linguistic resources across geographical borders…sign languages are considered integral to the deaf experience and identity…however, in folk discussions of contact between sign languages, there is a discursive emphasis on the dominance of one sign language over another naturalizing the idea that certain sign languages (and by extension deaf people) are especially vulnerable to foreign incursions (2020, p.196).

It seems that deaf people who can access resources which enable them to participate in transnational tourism often consider themselves as citizens of the world, taking pride in their ability to cross national and sign language boundaries, attributing this to their shared, deeply felt experience of something embodied (Moriarty, 2020). Perhaps reflective of social identity theory, it is a common refrain among deaf people that their deafness is the basis of an innate connection with other deaf people and this connection allows them to communicate across linguistic boundaries (Green, 2014; Murray, 2007). Ladd and Lane (2013) even suggested that international travel and internet communications resulted in an increased use of international sign language and led to growing awareness of commonalities between deaf communities which transcended national boundaries. Yet as we have seen from the studies by Moriarty (2020) and Friedner and Kusters (2014) the power dynamics inherent in deaf tourism particularly to postcolonial countries in the Global South need to be more critically problematised. Clearly there is space here to unpack the lived experiences of both deaf tourists from the Global North and their 'hosts' in the Global South to understand the inherent complexities and power structures which exist in the context of deaf tourism. Indeed, the comingling of deaf bodies across space and time, occasioned through tourism and the resultant sensory and corporeal effects and affects have scarcely been acknowledged in tourism studies.

We also uncovered a more recent strand of studies that examine deafness and hearing impairments in the context of mobilities. For example, Kusters' (2019) work questions how intersectionality and mobility can shape deaf women's experiences in Mumbai suburban trains. However, much of this literature does not speak directly to deafness but has much to say about sound. For example, Waitt, Harada, and Duffy (2017) discuss the complex relations between sounds, feelings, gender, and mobility, while Bull (2004), and Wilson et al. (2019) consider the importance of sound in automobilities. Jensen et al. (2015) exemplify how the soundscapes of rail travel mediates the overall sensoriality of interrail experience and point to how auditory undulations provide dimensions, attentions, and embodied knowledges to mobile tourist experiences. Further, non-representational studies offer critical discussions on a range of motion affects to include questioning what vibrations do to our understanding of bodies in transit, travelling environments and experience of movement (Bissell, 2010). Goodman (2010) has even explored the potential for an "ontology of vibrational force" and Cresswell and Martin (2012) argue that turbulence should be a central concern of contemporary theorists of mobility and the mobile. Yet while there is much discussion of sound, vibrations, and auditory undulations in the context of mobilities, there is little that has been said about deafness and the sensorial and corporeal experiences of deaf tourists in motion.

Overall, our exegesis of the mainstream tourism and related literature has revealed that there is a dearth of critical approaches to understanding deafness in tourism. As we have highlighted, the deaf lived experience is largely absent from tourism discourse, and epistemologies of deafness are scarcely valorised. This occlusion of the deaf tourist necessarily raises several questions about power in the creation of tourism knowledge including our own positions as able-bodied researchers. Questions of power emerge also in the context of deaf tourism to the countries of the Global South, and critical dialogues might also be considered about how deaf tourists evolve new embodied listening and feeling natures. Indeed, as the deaf tourism experience unfolds as a sensory, corporeal, and social encounter with an intentionality therein, we believe that it is important to comprehend these abstract and potentially hard to describe affects by turning at first, to the realm of non-representational theory and then to expand for example on the girth of Ihde's (1990) post-phenomenological framings. We suggest therefore that it is crucial to develop new and rich vocabularies to represent the nuanced worlds of what appears to be a silent figure moving from place to place, country to country, from one transport form to another and so on. In what follows, we first adopt insights from phenomenology, to articulate more critical, complex sensory modes of being, expression and communication through which it might be possible to articulate knowledges about deafness and tourism.

Phenomenological approaches to deafness

Phenomenology is the qualitative exploration of the human experience, encompassing all visible, touchable, and audible experiential phenomena, including thoughts, feelings, dreams, memories, and fantasies (Craig, 2009; Jensen et al., 2015). While it may seem counterintuitive, researchers have suggested that deafness can be conceptualised as a 'modus of hearing', however, one through which alternative sensory modalities are put to use and habitualised over long periods of use. For example, in an autobiographical account of a life with deafness, Wright (1994 [1969]) refers to the notion of 'deafmanship' to point to the learned and skilled ways that deaf people use their entire bodies to 'hear'. For instance, 'touch-hearing' refers to the way the skilled

body, not through audition, but through tactility, can feel the resonant properties of sounds through travelling vibrations. Of course, this type of 'hearing' hardly mirrors the richness of complete soundscapes, but it points our attention to the fact that sounds, as intangible as they may seem, are physical properties consisting of waves and vibrations. Another relevant idea is that of the 'sight of sound'. Wright (1994 [1969]) recalls vividly how for the deaf, the experience of bird-singing is a very different one, because using their sight, the deaf subject can envisage that birds, when flying, sing with their wings.

Similarly, Ingold (2000) defines vision-hearing as the experience of sounds through *vision* and offers an important insight into the ways people with hearing impairments construct their mental 'sonic landscapes' through complex coordination between the sensory systems available to them. This 'sonic landscape' is no less real to them as the soundscapes experienced by people who are able-bodied and tourism researchers might wish to reconsider what it entails to experience tourism as a traveler with hearing impairments. Hudson (2014, p.1.) contends that humans as 'listening subjects' are echo chambers through which sound reverberates in multiple nuances of feedback, return, boundness and offering. Bissell (2010, p. 480) notes that bodies-in-transit are "bounded by flesh and blood and have a capacity for absorption, diffusion, and transmission". Similarly, Deleuze and Guattari (1987) posit that rhythmic qualities of sound not only inhabit bodies, but the body has a capacity to sense rhythm enabling us to inhabit space. The concept of 'deaf space' emerged in the 2000s, around the time that a spatial turn was initiated in the social sciences, and we are also mindful of the deaf tourism experience as an emotional and sensual geography.

It is also important to consider the role of vibration in the context of deaf tourism. Vibration is not reliant on the cochlear efficiencies to enter the body and as Bissell (2010, p.481) notes "vibrations are becomings that undermine stable forms and identities". Deleuze and Guattari suggest that "there is no longer anything but movements, vibrations, thresholds" (1987, p.14). Goodman (2010) contends that sound can be perceived as a force that physically affects the body and as such, sound can produce an environment of fear. For Goodman (2010, p. xv) sound is a "non-representational ontology of vibrational force" and is central to our lives. He suggests that "one way or another it is vibration, after all that connects every separate entity in the cosmos, organic or non-organic" (2010, p. xiv). LaBelle outlines how vibration can "emplace" us, for instance where the vibratory rhythm of walking provides the "embodied sense of being on the ground" (cited in Trower, 2008, p.138).

Envision tourists with hearing impairments participating in guided tours; independently or collectively experiencing tourist attractions; or strolling in cities or natural landscapes. In such ordinary moments of deaf tourism encounters, the rhythms of the environment, the pulsating urban mobilities, rush hours, shifts in weather and many other rhythmical undulations work as forces that influence the experience and construction of 'vision-hearing'.

With the study of vibration as an embodied affect, it also allows us to "think about modernity without privileging the visual", or any other single sense, as indicated in the celebration of vibration in Futurism. For the Futurists, "vibration, and not vision, was to be the dominant sensory model of a modern age characterized by electricity and speed" (Classen, 1998 cited in Trower, 2008, p. 135). Nancy (2007, p.38) argues that the "constitution of the self is rhythmic", while Malloch (2005) suggests that the corporeal capacity to sense rhythm is biologically innate. Drawing on an extensive range of Malloch's work, Duffy, Waitt, Gorman-Murray and Gibson (2011, p. 18) suggest that "his studies in neurobiology on communication between mother and child in prelinguistic communication suggests that infants are sensitive to how rhythms are absorbed through the body". The rhythmic qualities of sound not only inhabit bodies, but the body also has a capacity to sense rhythm, and this enables us to inhabit space (Deleuze & Guattari, 1987). To fully grasp deafness in a tourism and travel context, we suggest, is to avoid 'over-silencing' this state of embodied life, instead accounting for its expressive and multisensorial forms, and critically exploring further how deafness is a state of embodiment increasingly shaped by technological mediation. To explore the importance of technological mediation to the embodied experiences of deaf tourists we now turn to post-phenomenology.

Post-phenomenology: on the role of *technical mediation*

To add further nuance to the traditional managerial approaches to deafness in tourism, and to render visible contemporary modes of hearing, we believe it is important to elaborate on the role of technology in deaf tourists' embodied experiences. We do so to avoid a human exceptionalism that reduces questions of deafness to a corporeal consideration alone when in fact new hearing technologies are emerging and changing the ways sonic perception is mediated. Consequently, we suggest that it is necessary to build stronger ties between science and technology studies, and phenomenological approaches if we are to better comprehend the sonic experiences of deaf tourists.

Traditionally, the modernist view of technological mediation assumes that technologies function as neutral objects used by people to interact with the world (Tussyadiah, 2017; Verbeek, 2005). Contrary to such claims, recent literature on the philosophy of human-technology relations has gained momentum, and post-phenomenology (Ihde, 1990; Verbeek, 2005) represents a transdisciplinary research sphere examining human-technology relations through post-humanist and postmodernist approaches. Surprisingly, there is a dearth of research on the relational materialism and technology use related to the everyday lives of deaf subjects in general and particularly in tourism. This we find surprising given the increasing public awareness, use and availability of hearing aids and other mobile technologies that enhance hearing. To discuss this issue further we draw upon the central term *technological mediation* which emerges from two interrelated strands. First, to elucidate the implications of technology in human life, Don Ihde (1990) developed four types of human-technology mediations: embodiment, hermeneutic, alterity and background relations.

Set in the context of this paper, *embodiment* is the use of, for example wearable technologies, such as hearing aids, that operate as temporary technological extensions of the self to provide new auditory perception. *Hermeneutic relations* explain the ways in

which human beings interpret the technological representation of the world through symbols and information. This can be exemplified by a deaf tourist using a mobile app – such as for example Google Live Transcribe – to get real-time transcriptions of speech into text. *Alterity* refers to how humans interact with technologies as agents, such as getting money from an Automated Teller Machine or making use of a ticket machine in an airport. Finally, *background relations* refer to the role of technologies in providing latent contexts for human interactions such as air conditioning, surveillance systems or notification devices. As tourists, we do not always relate to them, directly, but they are nevertheless part of the experienced space and thus pieces of the immediate environment.

Second, in light of rapid technological developments, Verbeek (2009; 2015) augmented Ihde's framework by including, among others, the new category: *cyborg relation*. The term is used to conceptualise the merging of humans and technologies where devices are not worn (external to) but integrated (implanted) into human bodies. For Verbeek:

> these human–technology relations are the ones usually associated with "bionic" beings, or cyborgs, being half organic, half technological. When microchips are implanted to enhance the vision of visually impaired people, when antidepressants help to change people's mood, or when artificial valves and pacemakers help to make people's heartbeat, there is no embodiment relation anymore (2008, p.381).

A study from the field of science and technology investigated the post-phenomenology of deafness considering the technological mediation provided by the cochlear implant. This study found that over a long period, the cochlear implant user slowly adapts to the technology similar to the ways other disabled bodies become accustomed to their aid tools as stated by Besmar:

> The embodiment characteristic of learning to hear with a cochlear implant is similar to the blind man learning to use his cane, in Merleau-Pontys well-known example. Through repetition, active moments of interpretation become sedimented in the body, and ultimately, over time, "the process of grasping meaning is performed by the body" (Merleau-Ponty, 1962: p. 153). This indicates that it is no longer an explicitly attention-oriented cognitive activity but that perceptual intentionality with the cochlear implant occurs at the level of the body; the cochlear implant becomes part of what Merleau-Ponty (1962) calls the person's "perceptual habit" (Merleau-Ponty, 1962, p.152) or what I referred to as the person's 'perceptual repertoire' (2012, p.306).

Unlike the cane, however, the cochlear implant is physically attached to the body. Embodying a translation technology such as a cochlear implant is a severe physical intervention, and over time the mastoid bone may eventually begin to grow over the implant so that it is impossible to remove (Besmer, 2012). This body-technology fusion resembles the sociotechnical *cyborg* – and provides a novel post-phenomenological way of framing deafness and sonic mediation in tourism. Furthermore, it provides a new technological dimension to the human-centric ways of understanding hearing which we believe may lead to profound changes in future tourism. Before we speculate further on this, however, we need to understand deafness and hearing conditions more sensitively by considering how the human and the technological co-constitute each other (Verbeek, 2008). The technological mediation is made possible by invisible layers of networked information, algorithms, codes, and sensors that work in a process of 'neuro-enhancement' to provide engineered sonorities. Importantly, the artificial intelligence contained in such hearing technologies not only 'add-to' the human-world relations experienced by deaf tourists, but they also play a central part in defining the situations and thus essentially *constitute* tourism consciousness and the perception of experiences (Verbeek, 2016).

This technological advancement, however, comes with a 'dark side' (Finlay & Molano-Fisher, 2008) and as Biderman (1998) in her autobiographical account of slowly adjusting to the cochlear implant noted:

> The fabric I had woven of my life had become unraveled…my balance was upset, and my carefully constructed adaptations to deafness had been torn down…I could not go back to my previous deaf condition, having tasted so much hearing, but I could not move ahead either (1998, p. xiii).

Thinking about the tourism context, in this 'bionic' association there actually is no longer an association between the tourist body and the technology (Verbeek, 2005). Rather, a *new* entity emerges through a process of mutual constitution. In Ihde's (1990) terms mediation does not simply take place between a subject and an object, but rather co-shapes subjectivity and objectivity. The relation between subject and object always precedes subject and object themselves; they are constituted in their interrelation. A hearing aid, such as the cochlear implant, operates as a double-edged technology that provides new sensory experiences, while simultaneously reframing – or even eradicating - the identity and social cohesion formed through years of belonging to deaf communities. From this perspective, we may ask, in the words of Mills (2011), whether implants are devices that support audist and oralist supremacy, or if they are heralds of liberation for the deaf tourist into the hearing world? Either way, the emergence of new hearing aids and implants is changing the experience of deaf travel, and thus represents a technological intervention into the embodied experiences of tourism for an increasing population of hearing impaired travelers.

On a more speculative note, we may consider how new technologies, such as cochlear implants, augur new human–machine interfaces – which may in fact position the deaf at the vanguard of a future *networked posthumanism* (Friedner & Helmreich, 2012). If cochlear implants, for example, can be used to port into virtual sonic worlds, then people with implants are at the forefront of sonic cyborgian embodiment, with hearing people left behind in an unaugmented state. This way of thinking about

hearing aids 'turns' the traditional focus on deafness as a sensory deprivation within emancipatory deaf studies, and rather asks us to imagine a new networked posthumanism where neuro-enhancement rearranges the traditional sensory order of society and potentially provides new ways of catering for hearing impaired travelers and crafting new memorable experience designs in tourism. It should be noted that this post-human framing of the deaf 'cyborg' is highly speculative and voiced to inspire discussions and critical imaginations of what the future of deaf tourism may entail: "many implant recipients have ambivalent relationships with what this technology means for their identities and abilities, especially since, through implantation, they become biomedical subjects and consequently are more likely to identify as being disabled" (Friedner & Helmreich, 2012, p. 79). That said, topical issues still revolve around how technologies such as cochlear implants affect the sociality and characteristics of deaf communities as well as provide new pathways for the experiencescapes of tourism in the future.

Towards a new research agenda

In this paper we have demonstrated that while multiple researchers, including in tourism, acknowledge the importance of sound in constructing society, deafness is still often reduced to a disability, a social problem, and an audiological confinement. While not neglecting the challenges of hearing impairments, this ontological reduction runs the risk of obliterating the communal strengths and characteristics within deaf communities and results in the occlusion of deaf epistemologies. We do acknowledge however that the idea of deaf 'communities' obscures the power differentials and complex hierarchies that exist within and between these communities as is manifested in and through tourism. We also found that phenomenological understandings can provide new and rich insights into the embodied nature of the deaf tourism experience. But we also went beyond this to argue that the role of technology is widely neglected, and we highlighted the potentialities of post-phenomenological thinking for future studies of deafness in tourism. Based on our conceptual discussion, we develop several future-oriented propositions – a new research agenda – that may inspire and give direction to empirical research on deafness in tourism. We frame the propositions into two broad themes – *knowledges* and *technologies*:

Knowledges in and of deaf tourism studies

- We have suggested that the deaf travel experience is embodied, with deaf tourists utilising their entire corporeal and multisensual registers to 'hear'. Tourism researchers can analyse this further by investigating the roles that vibrations and rhythms play in the experience of time and space in deaf tourism. That is, tourism researchers, by analysing and further unpacking how notions such as 'touch-hearing' and 'vision-hearing' come to expression in deaf tourism contexts, can enhance understanding of how the entire sensory system structures deaf tourism experiences. Indeed, research can also consider how we might develop new interdisciplinary methods for examining the sonic spaces of deaf tourism i.e., through interventionist approaches that experiment with sensory deprivation in tourism and travel contexts (deliberate reduction of sounds through earplugs or headphones), or through interdisciplinary collaboration with fields relatively uncommon to the canon of tourism research, such as sound studies and audiology, to get access to technological remedies that can register low-frequency vibrations during tourism activities (Friedner & Helmreich, 2012).
- How we represent research in and of deaf tourism has some relevance as while this paper relies on the written format to (re) conceptualise deaf tourism, researchers might consider how we can push the frontiers of textual representations and draw advantages from the growing opportunities embedded in digital publishing (integrating video, animations and multimodal representations). That is, re-envisioning new non-textual knowledge formats that represent/animate the sonorities of deaf tourism might present exciting prospects.
- We have discussed the problematics associated with the notion of a homogenous 'Deaf culture' at the national and international levels given that these communities are inhabited by a multitude of diverse corporealities. Tourism researchers might wish to further interrogate issues of power such as (a) how the inherent power relationships of deaf tourism to postcolonial countries of the Global South affect sensory and corporeal communications through time and space; (b) the extent to which there is dominance of specific sign languages (such as British Sign Language and American Sign Language), which have become internationalised, and how and whether this leads to exclusions even within Western locales thus impacting the embodied tourism experiences of a range of deaf tourists and (c) how inequalities associated with race/ethnicity, class, and gender are expressed within deaf communities and the implications for tourism experiences.
- We suggested that much of our knowledge and understanding of deafness has come from Western societies and there is insufficient knowledge and understanding of deafness in the Global South. What little is known often comes from Western researchers (e.g., McEwan, 2020) and it is therefore necessary as DeClerck (2011) suggested to have epistemological equity or epistemological decolonisation (Chambers & Buzinde, 2015) wherein our knowledge of deafness in the countries of the Global South emerges from indigenous deaf communities themselves. What has emerged from our research is that deaf communities in the Global South are marginalised in three main ways - first, as deaf communities navigating a largely hearing world similar to deaf communities worldwide; second, through their linguistic oppressions including illiteracy and the devaluing of indigenous sign languages; and third through a lack of 'epistemological equity'. How these marginalisations affect deaf tourism discourses and practices provide fruitful avenues for future research.
- We noted that deafness can be broadly defined and includes those who are profoundly deaf, those who are partially deaf/hard of hearing and those who have become deaf due to the ageing process. This has implications for notions of Deaf culture and Deaf identity as it is argued that those who are hard of hearing do not have a distinct cultural identity (Jain et al., 2019;

Ladd & Lane, 2013). In the context of tourism, these distinctions might have implications for the interactions between deaf tourists and between deaf and hearing tourists. Tourism researchers and practitioners might wish to further unpack these complexities as this will have implications for deaf tourist experiences. Further, the extent to which social identity theory can be a useful framework to understand any intergroup conflicts between deaf tourists and between deaf and hearing tourists (see Turner, 1975) is also worthy of attention.

- The authors of this paper are all hearing subjects, and it is questionable whether it is possible, or desirable, for hearing subjects to articulate a (post)phenomenology of deaf tourism. To what extent are we ourselves complicit in the silencing and objectification of deaf tourists as a manifestation of power? Central questions of researcher reflexivity and positionality are especially pertinent for research conducted in and with traditionally marginalised groups. As Baker-Shenk and Kyle (1990), (p.73) suggest, "the hearing researcher is seen to associate with deaf people, however the reality is usually that hearing researchers return to the hearing world at the end of the interaction". In addition, it is necessary to interrogate the attitudes of hearing tourists to the embodied experiences and identities of deaf tourists during the tourism encounter. Further research therefore would benefit from involvement of both deaf and hearing researchers and tourists in a process of cultural exchange, which may develop an epistemological relation that allows for new, sensitive ways to understand and represent deaf tourism.

Technologies in deaf tourism studies

- We have described how deafness is a condition which is mediated in different ways. In a phenomenological vein, future tourism research may 'zoom in' on the adaption and use of different technologies and materialities to help make sense of the world. As previously noted, this can be exemplified by the emergence of new apps, such as Google Live Transcribe, but may also refer to the use of picture boards or other assistive materials or technologies. The point here is that too often deafness has been reduced to a sensory deprivation and to a lesser extent explored as a sensuous mediation based upon situational body-technology relations.
- Inspired by post-phenomenology with a significant focus on its impacts on human emotional and affective phenomena, researchers in tourism might wish to consider what characterises the embodied experience of deaf tourism and the use of cochlear implants/hearing aids. This relates both to the everyday practices in a life with a cochlear implant, but also to the social, cultural, and emotional implications of carrying an implant in deaf tourism.
- In a more speculative and future-oriented route, explorations may focus on how the ordering and experience of tourism may change dramatically with the ongoing development of cochlear implant technologies. If implants can provide additional layers of sonority to travel, then deaf tourism can potentially metamorphise into a re-augmented state of travel where, for example, supplementary audio guides or user information is provided while on the move. While this is speculative, and a post-human imagination, it allows researchers to stay critically alert to the ethical concerns, potentials, and problems of technological implants in future tourism contexts that may increasingly see virtual and actual worlds intertwining.

Conclusion

In this paper, we initiated an interdisciplinary discussion of deaf tourism which brings together tourism studies with disciplines long engaged with the role and influence of sounds in society. We have contributed by providing an up-to-date theoretical review of the existing knowledges on deafness in tourism and related studies. We used this paper to unpack interesting future imaginaries related to deafness in tourism through the application of (post)phenomenological thinking. Technologies that influence human perception are permeating developed societies in rapid ways and research must address a futuristic and posthuman tourism sector where technologies, implants, algorithms and codespaces will influence deaf agencies as equally, or even more than, accessible public infrastructures, sign systems and physical services. Henceforth we point to the pressing role of critical socio-technological approaches which can be adapted to current embodiment research in tourism to account for how the 'cyborgian tourism body' is taking form, and how it may inform the staging and experience of tourism mobility in the future. These are still in an early phase of realisation, but this only underlines our timely call for critical interdisciplinary social science approaches on the meaning, ethics, and future values of technological aids for deaf subjects in tourism and beyond.

Finally, we proposed a research agenda to promote a new style of creative, interdisciplinary, and post-phenomenological framing of the embodiment of deaf tourism. We are cognisant that as hearing subjects, our attempt to empathise with, and to understand deafness will never fully appreciate the complexity of living with hearing impairments. Yet, we feel an urgent call to reframe the social model of disability and the emancipatory idealism that appears intrinsic to the abundance of deaf studies. Both approaches, we believe, run the risk of oversimplifying and homogenising deaf cultures that are more diverse and non-distinctive. We have used this paper to outline several new approaches to deafness in tourism studies. These approaches acknowledge and seek to explore the heterogeneity of both individuals and groups as they develop meanings, coping skills and values associated with being deaf. The approaches outline several epistemological, and technological routes that researchers may take in further interrogations of the role of deaf subjects in the future of tourism and travel research.

Declaration of competing interest

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