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Building Worlds Together with Sound and Music: Imagination as an Active  
Engagement between Ourselves

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<1>Introduction

As human beings, we constantly make sense of, interpret, and even make stories of what we hear in the world we live in. Notably, on such occasions when there are not, for example, visual cues available for affirming the activity that produces a specific sound, our ability to apprehend and understand sounds depends on our faculty of imagining. Thus, it can be argued that in an effortful activity of *listening* (Hargreaves et al. 2012; Krueger 2011; Petitmengin et al. 2009; Tuuri and Eerola 2012), the processes of hearing and imagining are more or less intertwined. Furthermore, since the environment where the sounds are being heard exists in a social reality formed in relation to other people, the act of listening also has intersubjective qualities. As LaBelle has stated: "In the movement of sound, the making of an exchange is enacted; a place is generated by the temporality of the auditory. *This is our moment* is also immediately, *This is our place*" (2010 xvii).

In line with enactive and ecological approaches to cognition and perception (Gallagher 2017; Noë 2004; Varela et al. 1991), we take imagination to be a constructive mental activity that is deeply rooted in an experience of *being-in-the-world* (Heidegger 1962), interacting with worldly phenomena, and "enacting or entertaining a possible perceptual experience" (Thompson 2007, 269). The result of such an imaginative activity is not exclusively about "sounds" or "music" but, rather, is an embodied, *lived* apprehension and imaginative realization of the sounding

moment. Despite the linkage to perception, imagination is not bound to straightforward reality, but it is intertwined with creative freedom. For example, musical streams do not always refer to realistic sound sources but can refer to “virtual sources” (Bregman 1990) or “perceptual realities” (Clarke 2005; Voegelin 2014) thus constituting auditory fiction. Just as the author imagines by writing, and the musician imagines by improvising or composing new music, a listener can *imagine by listening*.

It is very easy to conceive listening – and especially the involved imagining – primarily as a subjective matter of the individual. Yet listeners within a certain population are able to produce similar extramusical associations and mental imagery on the basis of a particular piece of music, as if music offered them some kind of shared place of meanings (i.e., *topos*, see, e.g., Huovinen and Kaila 2015). According to the enactive approach (Thompson 2001; 2007), however, cognition is formed in dynamic interrelation with the self and others, meaning that engagement with music and sounds inevitably dip into issues of intersubjectivity. Some of these issues have biological and ecological roots and some are results of a cultural intercourse. The enactive approach also holds that cognition is not confined to the physical brain: through a dynamic interaction between a living organism and its environment, the mind is seen as interactively extended into the world we humans live in (Gallagher 2017; Noë 2009). Thus, it is justifiable to ask where the boundaries of imagination are, and how imagination might exist as something socially extended between ourselves.

In this chapter, we will explore the social extension of imagining through a question of how shared places of imagining with sound are established and maintained. For this, we will adopt Tia DeNora’s (2000) concept of *human-music*

*interaction* as an “in-action perspective” in order to examine particular aspects of social exchange and social embodiment in the practices of using music and sound for imagining. We will frame the abovementioned interaction as a constructive, dialogue-like process that fundamentally operates in a two-fold manner. First, there is an individual person’s reflective, inner dialogue between the intuitive (i.e., felt) experience and its conceptual description (see Depraz et al. 2003; Petitmengin 2007). This conforms to the Kantian view that emphasizes the intermediary role of imagination between the intuitive and the conceptual elements of human cognition (Matherne 2016). The involvement of concepts and expressions is already deeply related to the communicative potential for sharing an understanding with other people. Within the overall constructive process of imaginative reflecting, this involvement of concepts opens up an interface towards another type of dialogue which comprises interaction (and exchange of concepts and attitudes) with others. In this second form of dialogue, socially shared imaginative engagements with certain sounds and music, as well as constructed discourses of cultural realities, are built and utilized. These communicative events are founded on the establishment of a base of socially shared common knowledge, shaped by cultural and historical factors, which is implicated in the construction of understanding and the negotiation of meaning (e.g., Littleton and Mercer 2012).

#### <1>The Foundations of Shared Worlds

In everyday life, music provides people means to experience things beyond perceiving ordinary matters: one can escape or modify reality by constructing “auditory bubbles” (Dibben and Haake 2013) for blocking out environmental distractions, or even *sonic possible worlds* created with numerous possibilities of

engaging with the sonic materiality (sounds, sensations) of the environment with our imagination (see Voegelin 2014). Similar to Gallagher (2017), we regard imagining as enacting something in bodily movement – as “pretend play” – that might include the use of props such as sounds or music. By becoming engaged in these processes, they allow one to expand the set of affordances<sup>1</sup> or the affordance space in the form of a pretend play. This kind of engagement with sound and music can be understood, for example, through motor-mimetic imagining (Godøy 2001; 2003), thinking in movement (Sheets-Johnstone 2013), embodied simulations (Gallese 2005), or enactive imagining built upon an “embodied resonator” (Tuuri and Eerola 2012). In other words, in imagination, one literally *acts out* what he or she hears, as Noë (2004) suggests. But it is important to notice that such embodied views have their focus on the *minimal self* rather than the *narrative self* (see Gallagher 2000). Concepts, thoughts, feelings, personal references, and memories constructing these experiences can be seen as affording possibilities to follow one path or another as one engages in imagining. Therefore, we also need to take into account how people create meaning with different levels of dialogue from these embodied experiences.

Dialogical thinking is bound to a person’s on-going process of identity formation, in which *narratives* play the central role. For instance, autobiographical knowledge is conceptualized and expressed through narrative memories that give accounts to individual's self-concepts (e.g., Singer 2004). Furthermore, narratives typically contain information about interpersonal contexts, and they rely on sociocultural concepts, such as visual imagery, familiar plot structures, and archetypal characters that “are linked to predominant cultural themes of conflicts” (Singer and Bluck 2001, 92). Narratives are not mere abstractions, but they are constructed through a history of embodied experiences and perceptions. The embodied processes

and modes of interacting with the world enactively shape the conceptual structure of these experiences; thus, “metaphorical modes of thought” (Lakoff and Johnson 1980; 1999) are constantly in use when one is making sense of the surrounding world or imagining possible worlds. Being both embodied and socio-culturally constructed at the same time, *conceptual metaphors* shape one's understanding of subjective experiences but also provide a means for sharing the experiences with others in socially meaningful ways (e.g., Johnson and Larson 2003; Yu 2008). Both metaphorical modes of thought and narratives are anchored in the environment through the body. The reflexive, narrative self has a dialogical structure, as it is structured by the interiorization of speech (Menary 2008). Since narratives are based on fundamental linguistic capacities, they are primarily intersubjective devices that are used to “tell stories to others,” as Menary (2008) proposes.

We can now see that affordances for imagining, or possibilities for imaginative activity, are constituted upon *both* the sense of embodied self-agency within the sonic environment and the sense of the narrative self in listeners, together with all their levels of abilities to make use of these possibilities. Thus, we propose that imagination in listening should be considered as something that happens through *embodied resonances*, as Tuuri and Eerola (2012) have suggested, but we also suggest that this approach should take into account the resonances with narratively and conceptually structured cognitive patterns that partake in enactive imagining. Such a theoretical expansion would be beneficial for recognizing the dialogical cognition – along with its inherent intersubjective dimension in exchanging and sharing concepts. Our assumption here is that, in a process of enactive effort of imagining, conceptual knowledge becomes realized as a part of lived-through experiences that are constituted upon resonances between the felt/embodied and the conceptual domains

alike. From this viewpoint, the understanding of concepts requires enactive apprehension that could be seen in terms of the pretend play of imagination (see Gallese and Lakoff 2005).

Music especially has been seen as an instrument of consciousness and imagination – an aesthetic technology driving human experience and behavior – because it provides affordances for co-constituting and structuring people’s experiences in everyday situations (e.g., DeNora 2000; 2011). Similar to language, music can be considered as a device for supplying scaffolding for cognition by providing an external medium that socializes or “draws out subjects’ experience and gives experience its shapes” (DeNora 2011, 313). Moreover, music is often combined with explicit verbal narrative (e.g., song lyrics), but not always. The difference between music and language lies in the non-verbal qualities of music which work in more ambiguous ways. Both speech and music can be considered modes of communication for joint activity, but the expressivity in music can rely purely on tonal and temporal relations, whereas speech affords a presentation of explicit ideas between people (Littleton and Mercer 2012). Thus, with music, the pretend play can be constructed from felt, kinesthetic aspects and can be experienced together with others in a level of shared affective spaces (or *atmospheres*, as Böhme [2000] conceptualizes them). These atmospheres, created with sounds and sensations, are pre-subjective and pre-objective in a sense that the perception of the atmosphere as whole can give a certain state of feeling (e.g., a dissonant interval or the buzzing sound of an insect can create an inexplicably uneasy atmosphere) even before the source itself is identified (Vadén and Torvinen 2014). Furthermore, with sonic atmospheres the reality of the actual world can be made into a more ambiguous one,

as they can add other dimensions to the visually perceived environment (Voegelin 2014).

<b>Atmosphere</b>	<b>Kinesphere</b>	<b>Ecosphere</b>	<b>Culturesphere</b>
Embodied sensitivity to a felt ambience, moods, and dynamic changes.	Affordances of kinesthetic and motor imagining within a body topography.	Sensorimotor affordances of imagining interactions with the world.	Dialogical affordances of narrative self in relation with the cultural world.

TABLE 1 A summary of shared frameworks of sonic imagining and the related enactive potential.

To sum up and conclude the discussion above, we are now able to outline frameworks of sonic imagining that, to some extent, are shared among people, affording the potential to communicate one’s imagining with others. These frameworks are conceived here as nested spheres, underlining the characteristics of each sphere in providing a specific epistemological layer of experience – a *communal ambit* that affords a particular enactive scope for imagining. The four spheres (see Table 1) are interconnected and manifest a continuum from unfocused embodied sensitivity to a more focused and more world-directed sense-making orientation. Along the same continuum, the spheres towards the left side emphasize a pre-separation of the subject and the object, while the spheres towards the right side are self/world driven. Let us



first consider the *atmosphere* as a profoundly shared reality of humans as living and affective organisms (see Stern 2010) and a transmodal, pre-reflective dimension of lived experiences (Petitmengin 2007). It provides commonalities in embodied apprehensions of a felt mood, or preliminary mood/situation structures in a sound (e.g., Douek 2013; Huovinen and Kaila 2015; Vadén and Torvinen 2014), and in sensitivity to dynamic changes within a felt mood which is comparable to vitality affects (Stern 2010). Second, the next framework, the *kinesphere*, refers to a body topography and the sphere of movement within and around the lived body (Laban 1980). The commonalities it provides to imagining refer to a kinesthetically conceived realm – the constitutive and creative ability to think in movement (Sheets-Johnstone 2013) and motor-mimetic affordances of sound and music (Godøy 2003). It can also provide a framework for the intersubjective apprehension of intentionality in actions (Gallese 2001) and empathically acquiring knowledge about the other's movement experiences (Parviainen 2003). Third, the *ecosphere* refers to the sensorimotor reality of humans as a lived environment. It provides commonalities to, for example, imaginative apprehension of the actions of sounding objects (Godøy 2001; Rocchesso and Fontana 2003). Such action simulations are presumably multimodal, thus imaginatively realized in various sensory domains (Gallese and Lakoff 2005). Finally, the last framework, the *culturesphere*, stands for narratively and socially constructed reality between the members of a community (e.g., Littleton and Mercer 2012). The commonalities it affords include, for example, shared habits for comprehending cultural uses and occurrences of sound and music, as well as abilities to take part in the cultural narratives, concepts, and discourses that are involved.

## <1>Imagination as Joint Engagement

In this section, we will focus on the in-action aspects of imagination, thus considering the constructive *process of imagining* as a dialogical and socially shareable activity. As already briefly described in the introduction, we see imagining as essentially utilized in, and constituted by, the dialogue-like mental activity of an individual as well as the inter-dialogue between the mental and socially shared activities. The intra-dialogue of mental imagining can be seen as a process involving an intuitive fulfilment of an eidetic enaction (such as dipping oneself in the felt domain of a sonic experience) and the optional part of expressing it (see Depraz et al. 2003). In other words, it is about utilizing imaginative effort to bring the intuitive feeling into a form of eidetic description that is *intersubjectively communicable*. Any emerging expression, whether being uttered or remaining in the mind, constitutes a validation phase in terms of the appropriateness of the expression for describing the particular lived experience. The whole process of enacting, expressing, and validating is iterative and constructive, as conceptualizations and expressions become sources of a renewed objectification for consequent imaginative enactions, thus having an effect on how the “original experience” imaginatively re-appears to a person (Depraz et al. 2003; Petitmengin 2007).

Here, however, our emphasis is on the social extension of imagining. Essentially, it is the exchange of communicable expressions that provides an interface to imagining as a social activity. Conceiving imagination as joint activity, the exchange of expressions affords new imaginative orientations and attentional positions in the participants’ mental imagining while, as a whole, constituting a process of joint imagining that becomes shared and validated between the participants. Thus, the interaction among participants in a joint practice should not be

seen as a mere interchange of information but, rather, processes of “interthinking” (Littleton and Mercer 2012) and collaborative imagining. We are inspired by Murphy’s (2004) account of imagination as joint activity, in which imagining is seen as emerging from a group of interactants who utilize different kinds of expression (verbal, gestural, or media [such as sound]) to imagine something together. This social part of imagining, through an exchange of communicable expressions, becomes explicitly elicited in many types of collaborative interactions, such as creative or learning activities, in which more than one imagining mind are engaged in “what-if” ways of hypothetical thinking (Murphy 2004, 269). It should be remembered, however, that not all joint imagining activities have such a clear goal-orientation as the architectural design task that Murphy used as an example.

By our examples and analysis here, we will suggest that the joint imaginative engagement strongly relates to a cohesive group process of building worlds together. In design-oriented group imagining, this building is arguably an integral part of the task: a shared, imaginative apprehension of the problem, and the related world is pursued by the interactants in order for them to work on possible what-if solutions. But, in non-goal-oriented imagining too, there seems to be a tendency for building common worlds among a group (e.g., Tuuri and Peltola 2014). Efforts to build one can potentially serve many kinds of purposes for individual interactants; one might, for example, use the negotiations of a collective, imaginative ground as means to re-imagine and elaborate the awareness and description of one’s personal experience.

We will take a look at two cases of joint imagining: one relating to group engagement in discussing experiences of the shared listening situation; and the other relating to joint imagining involved within the so-called *autonomous sensory meridian response* (ASMR) practices (see, e.g., Ahuja 2013). Of course, many other

examples could have been covered, such as designing sounds via joint imagining within a particular *use scenario* (e.g., Pirhonen et al. 2007) or engaging in joint imagining through performing music in a group (e.g., Hart and Di Blasi 2013; Schiavio and Høffding 2015).

## <2>Case Example 1: Listening and Imagining in a Group

In our earlier study (Tuuri and Peltola 2014), we explored the processes of group interactivity in reflecting and sharing listening experiences. In the study, two groups of 3–4 people listened to short music and soundscape samples together and discussed them afterwards. The role of the interviewer was to act as a mediator, providing structure, not content, to a dynamic group process and occasionally asking participants to tell more about a particular experience. The group activity was expected to encourage participants to communicate and elaborate their experiences together, while yielding interactional data on the process of socially shared experiencing and imagining. However, the two groups differed in terms of group dynamics, one of them being clearly more cohesive and oriented towards joint elaboration. Neither of the groups was given any extrinsic goal for the discussions, but the more cohesive group had a clearer tendency to negotiate for a consensus – a collective narrative on the experience. In spite of the differences, both groups yielded deliberative, interaction processes where imaginative ideas became elaborated in a joint engagement.

Within the group participants, imagination cannot only be taken as a faculty for re-producing the previous listening experience, but also as a faculty for producing original content (e.g., imaginative positions, concepts, and narratives) that makes a particular experience in general conceivable and communicable (see Matherne 2016).

Thus, group discussions on listening concerned reciprocally a *perception* of the listened samples, as well as a *creation* of something new in terms of the possible ways of imagining these sonic experiences. This was evident in the negotiation processes, where typically individual group members picked up, and elaborated upon, certain inspirational vocabulary, ideas, and concepts from the other members' expressions (Tuuri and Peltola 2014). Consequentially, the exchange of such information helped individuals to re-discover and re-imagine their experience, while also providing opportunities for reflectively validating the appropriateness of these ideas in terms of one's own listening experiences. The joint engagement in a group provided a basis to both shared imagining as well as the imagining of individual members.

Agreements and disagreements on the exchanged information were usually spontaneously displayed in a group (Tuuri and Peltola 2014). But even in the cases of disagreement, there often seemed to exist a collective *core understanding* of certain felt elements of the listening experience. For instance, one music excerpt induced similar dreadful feelings of helplessness and insecurity to all group members in respect to the events they imagined in the music, but their experiences differed hugely in terms of visual objectification (Tuuri and Peltola 2014). In another instance, all group members agreed that the (apparently synthetic) sounds of music felt as if they were perfectly smooth pole-like objects but there was a dispute on the material, color, and tactile properties of these objects (Tuuri and Peltola 2014). In such cases, a certain felt atmosphere arguably remained shared, even though individual persons preferred different orientations and particular ways to *live through* an imagined realization of their experience, for example, to actually "see" the imagined world and its objects, agents, and events. In contrast to explicit comparisons of imagining, on some occasions, group members developed a collective immersion into a shared

“evocative space,”<sup>2</sup> in which more than one individual simultaneously lived through the flow of experience in order to describe it together (Tuuri and Peltola 2014).

Within the example discussed above, the intrinsic goal of joint imagining in a group could be seen in terms of how group members *use* sonic materials and each other’s expressions for building both collective and individual “worlds.” We suggest that participants of a group mainly engage in such interaction for the sake of the challenge of exploring different ways to experience sounds and music. Following the ideas of DeNora (2000), we assume that the meanings of these practices relate to a person’s on-going identity-work that constitutes and re-constitutes that person as a particular type of agent, while providing ontological security through the sense of self-identity, as both a culturally and biologically organized whole (see also Noë 2015).

## <2>Case Example 2: Virtual Environments for Shared Imagining

The intersubjectivity and social quality of sonic imagination is quite apparent in the case of different musical traditions that have been used for creating special kinds of soundworlds, or atmospheres, in order to construct collectively shared emotions, beliefs, memories, and behavior for religious or other social purposes (e.g., Böhme 2000; Krueger 2016). However, as technological development provides new tools for social interaction, people can create new forums for shared sonic imagining. In addition to music, listening to non-musical sounds can also be a way of engaging with an enactive play act for the sake of gaining pleasure. Thus, sounds can be listened to as if they were music – not only in the sense that they would create melodic lines or rhythmic patterns similar to music but also as temporal, sonic material for imagining

and embodied experiences. Human beings have an innate tendency to seek pleasure (e.g., Rozin 2003), and sounds can be a source for pleasurable experiences.

There is a large online community formed around a previously unidentified sensory phenomenon, the autonomous sensory meridian response (ASMR). Individuals experiencing ASMR report highly pleasurable bodily sensations in relation to certain sounds or audio-visual materials, and with the help of technology, many of them have created a whole new culture around sounds on a scale that is quite significant (Barratt and Davis 2015). The community, consisting of hundreds of thousands of members from all over the globe, designs and produces media specifically to create a soothing ASMR atmosphere to be shared with the others. The case of the ASMR community is an intriguing example of how sounds with no apparent narrative function can bring people together to experience and share meaningful, embodied ways of listening through kinesthetic empathy (see Parviainen 2003) and shared imagining. Despite the fact that the online interaction between the creators of the ASMR media, the ASMR artists, and their subscribers is immediate and communal, the motivation for engaging with ASMR media might rely not on the social aspects of the community but more on the experience of listening to the sounds and enjoying the pleasurable embodied sensations in an atmosphere of virtual proximity.

Typically, ASMR media are videos that focus on producing sounds of a particular type, such as tapping on surfaces, whispering, or combining different kinds of "triggering sounds" with role-play simulating intimate, yet non-sexual situations involving personal attention and pretended dialogue (see e.g., Ahuja 2013). The soundtracks of these videos are recorded with high quality stereo microphones capturing even the quietest sounds, thus producing the kind of sounds that would not

exist in the normal, human auditory reality; for instance, hearing the atypically amplified but originally quiet sound of someone almost silently tapping their nails on the wooden surface of a hairbrush. Often, the recording system has been built in the form of a dummy head – binaural recording designed to mimic the acoustic effects produced by the human head – or the artists use plastic, ear-shaped microphones to be touched for imitating the sounds of proximate human interaction.<sup>3</sup> The videos are meant to be watched using headphones, creating a binaural experience of a three-dimensional soundscape. ASMR videos can be used in experiencing an atmosphere of gentle intimacy, where the viewer can imagine sharing the same pleasurable soundworld with the ASMR artist. Through the feeling of the soundscape, the expressions uttered and actions performed in the videos, the viewer can literally *feel* present in the experience, caressing hair or whispering in ears, although in reality the viewer is alone at the computer with headphones on.

ASMR videos can be considered as imaginary interplay between the artist and the viewer in a virtual sense. Similar to the engagement in joint musical performance, the social engagement is based on a real-time embodied presence and interpersonal attunement rather than verbal communication (see Schiavio and Høffding 2015). The goal-orientation of an ASMR media is in creating sonic ambiances that are felt bodily by the viewers, whose experiential space is not necessarily extended towards the sound sources *per se*, but lies unfocusedly in “synchronisation between inner space and outer space” (Petitmengin et al. 2009, 277). The viewer is pursuing pleasure and relaxation by attuning to the actions of an ASMR artist through bodily “resonance” (Sheets-Johnstone 2013) or kinesthetic empathy (Parviainen 2003), thus being able to feel the *action-sound whole* within their own body topography. The artists produce



ASMR videos explicitly for creating this type of communal ambit that is especially connected with the experiential frameworks of atmosphere and kinesphere.

As mentioned above, there are certain correspondences between ASMR videos and recorded music, for example, since both can be considered as “devices” for supplying scaffolding to subjects' experiences (see DeNora 2011), which are both private and shared at the same time. Moreover, even though ASMR recordings utilize everyday sounds, the sounds are not necessarily primarily attended to as sounding objects but are imaginatively approached, in a manner similar to musical objects (i.e., by putting the actual sound sources “in parenthesis,” see Tuuri and Eerola 2012). Of course, ASMR videos differ from music in the sense that they constitute much less ambiguous sonic worlds due to their explicit focus on a particular activity in a particular interactional situation.

Similar to our previous example of shared imagining, in relation to group listening, the members of an ASMR online community *use* the sonic materials of the videos and each other's creations for building their common ASMR worlds. For instance, artists often refer to other artists' videos, especially to those they personally like,<sup>4</sup> and draw ideas from each other. Furthermore, the sharing of experiences relating to the so-called triggering sounds lies in the core of the ASMR practices: typically, the artists, being ASMR-sensitive themselves, describe the sounds that feel especially pleasurable on the videos as they produce them, and the subscribers share and discuss their experiences in the comments section.<sup>5</sup> Often, there is also a tendency to create a sort of collective core understanding on a certain felt element of the listening experience of a certain video, resembling the social setting of the music listening study (Tuuri and Peltola 2014).

## <1>Conclusions

In this chapter, we have discussed socially extended imagining with sounds and music. Although the contemporary paradigm of (enactive) cognitive sciences embraces the extended mind approach (e.g., Gallagher 2017), social extension has been a rather neglected aspect in the literature on sound and imagination. We have promoted an idea that imagining is embodied activity – a form of pretend play that is enactively constituted upon both the sense of embodied self-agency within the sonic environment and the sense of the narrative self in listeners. Thus, imagining is essentially interlocking with the enactive effort that constitutes not only the perceptual process of listening but also the creative and dialogical processes that build upon the listening experiences. We have further proposed that these dynamic and generative processes of imagining are not only individual, but that they also become exhibited and jointly engaged in social dialogues. These socially exhibited processes of imagination definitely merit more attention in the research on sound and imagination.

Through the two case examples, we described how people engage in a social interplay of imagining that utilizes sounds or music and which takes place in the socially constructed – and constantly re-constructed – reality of the members of a community. Within the examples, we proposed that the intrinsic goal of joint imagining could be seen in terms of how people use sonic materials and social dialogues for building both collective and individual sonic worlds. In many practices that involve group creativity, such as music-making or sound design, the purpose of such collective worlds might serve a particular collaborative goal. But we also want to emphasize that, in terms of the everyday life of an individual, the meanings of the socially shared imagining arguably relate to a person's identity construction as well as a situational self-regulation of how sounds and music are experienced (DeNora 2000).

By focusing on these processes of joint imagining, we can better gain an understanding of the various communal ways that people engage with sounds in order to build, dwell in, and share imaginative sonic places in their everyday lives.

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<sup>1</sup> Affordance, coined by J. J. Gibson (1977), refers to a meaningful action potential that an environment or an object provides for the living organism.

<sup>2</sup> This type of real-time interplay is arguably comparable to the pre-reflective elements of joint musical performance (Schiavio and Høffding 2015).

<sup>3</sup> See e.g., JellybeanASMR (2015): <https://youtu.be/NmWYQ5EC1Vs?list=RDQMpNW0IkbjmFk>. Accessed January 5, 2018.

<sup>4</sup> See e.g., GentleWhispering (2017) describing the style and voice of another artist (04:44): <https://youtu.be/OiLqonbHJeo?t=284>. Accessed January 5, 2018.

<sup>5</sup> See e.g., GentleWhispering (2017) enjoying the sound of touching a plastic-covered card booklet (14:10) and the comments and hundreds of "likes" for those crinkle sounds in the comments section: <https://youtu.be/OiLqonbHJeo?t=850>. Accessed January 5, 2018.