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Enhancing Meaning-Making in Research through Sensory Engagement with Material Objects

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Abstract

There has been increasing awareness and interest in the role of the senses in qualitative research. We build on this work by focusing on the use of material objects in research. Using material objects in qualitative research, particularly those selected by research participants, offers a different kind of engagement that can add richness and complexity to the knowledge generated. Material objects can either be participant-selected or researcher-selected, each having its own benefits and challenges. Using examples, we explore how participants sensorially engage with these objects, using visual, auditory, olfactory, and tactile means. This engagement with material objects, particularly those that are personally meaningful to participants, is useful when examining research topics that may be sensitive or abstract; it offers the potential for participants to identify salient associations and/or express what may be otherwise unsayable. We discuss practical strategies in using material objects as well as the ethical challenges and possible products of such research.

Keywords

Sensory Engagement, Material Objects, Interview Methods, Innovative Research Methods, Ethics

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Enhancing Meaning-Making in Research through Sensory Engagement with Material Objects

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There has been increasing awareness and interest in the role of the senses in qualitative research. We build on this work by focusing on the use of material objects in research. Using material objects in qualitative research, particularly those selected by research participants, offers a different kind of engagement that can add richness and complexity to the knowledge generated. Material objects can either be participant-selected or researcher-selected, each having its own benefits and challenges. Using examples, we explore how participants sensorially engage with these objects, using visual, auditory, olfactory, and tactile means. This engagement with material objects, particularly those that are personally meaningful to participants, is useful when examining research topics that may be sensitive or abstract; it offers the potential for participants to identify salient associations and/or express what may be otherwise unsayable. We discuss practical strategies in using material objects as well as the ethical challenges and possible products of such research. Keywords: Sensory Engagement, Material Objects, Interview Methods, Innovative Research Methods, Ethics

Introduction

Our everyday lives often include material objects that are imbued with personal meaning; they give us comfort when we hold them or evoke particular memories of people or events. Examples of this could include a pendant whose smooth touch is calming and reassuring, a favourite sweet reminiscent of schoolyard friendships, a sandalwood box whose smell when opened induces memories of people and places, or a music box, whose delicate tinkling tune conjures up childhood memories. Most of us accumulate these kinds of material objects over a lifetime; although they may not necessarily be of great monetary value, their personal value can be immeasurable. The act of seeing, smelling, hearing, touching and/or tasting these kinds of objects is evocative and can transport us in place and time.

In this paper we explore the potential of sensorially engaging with material objects to generate meaning in research. Our interest is in how engaging with material objects in a research setting, our senses are evoked, which can offer different kinds of opportunities for meaning-making. This aspect of meaning-making is particularly relevant in research settings where, for various reasons, participants may find it difficult to articulate with words their beliefs and experiences. This may be because the research topic is sensitive in nature; for example, consider undertaking research on domestic violence or infant death where the nature of the topic is sensitive or the research participants are vulnerable. In these cases, the topic can be so challenging that for the participants, their experiences are rendered unspeakable. In other cases, the research topic may be abstract, for example, research on hope or courage, topics that we have all experienced but because of their abstract nature, may be difficult to articulate. We

suggest that integrating material objects in the research process offers the potential for a different kind of engagement, a sensory engagement, which helps participants to communicate what might go unnoticed or otherwise be unsayable.

Although we suggest that incorporating sensory engagement with material objects can be particularly useful when dealing with sensitive research or abstract topics, it has broader application. We take seriously Lather and St. Pierre's (2013) call for post-qualitative research where they urge us to rethink humanist ontology. Hurdley and Dicks (2011) concur in their call for a "thirdspace" which is an integration of sensory and multimodal methodologies. However, when employing these kinds of methodologies Chenail (2008) urges us to be transparent in our choice of process and the ways they are used; we purposively respond to these calls in this paper. In advocating for sensory engagement with material objects as an aspect of qualitative inquiry we combine the human, the material and language with the senses, and examine what emerges. We suggest that this methodology is useful for a wide range of qualitative research involving humans, particularly qualitative health research, but also other social research fields utilising empirical approaches.

In exploring these possibilities, we experimented with material objects and sensory engagement in different research contexts. We investigated objects chosen by research participants compared with those selected by the researcher; as well as arbitrary objects found in the natural world and personal objects treasured for many years and imbued with deep meaning. We explored the key senses of sight, sound, smell, taste and touch in engaging with material objects. We acknowledge that these five senses do not encompass all senses: balance, pain, thermoception (sensing heat and cold) are notable additional forms. However, within a research context we believe that the five key senses are often more relevant and available.

In this paper we reflect on our experimental practices and offer methodological guidance to researchers whilst exploring ethical and challenging aspects of doing this type of research. The reflections that we present here are not based on empirical research per se, but rather on preliminary explorations using material objects from experiments with each other and colleagues. We use this to build on previous work on sensory awareness in research practice (Guillemin & Harris, 2014; Harris & Guillemin, 2011) that illustrated how sensory awareness can enrich the research process, and in doing so, enhance the kinds of knowledge generated. In this previous work we proposed that sensory awareness involves the researcher first being attuned to the senses in the research environment as well as utilising sensory questions or prompts to gain insight into participants' experiences and beliefs (Guillemin & Harris, 2014; Harris & Guillemin, 2011). What was proposed was largely a humanist practice; whilst being attentive to the senses, the engagement is between the researcher and participant. In this project, we extend this frame by placing our focus on material objects. We examine the relationship between humans (researcher and participant) and material objects. However, it is the ways that sensory engagement brings together the humans and the objects that is of interest here. We argue that integrating the use of material objects in research practice opens up a different kind of engagement, a sensory engagement that can add richness and complexity to the kinds of research knowledge that can be generated.

To support this argument, we begin by outlining what we mean by sensory engagement with material objects. We examine the literature on the senses as used in research settings and proceed to examine the work that uses material objects in research. There has been little empirical work that combines the senses and the material, but we use the work that does exist as a springboard for our approach. We then go on to present illustrative practices where we have examined the use of different types of objects in various research settings. These examples were experimental, allowing us to be playful and exploratory. It proved to be important and illuminating to actually try out ideas with each other and our colleagues; it was only by doing this that the possibilities were revealed. We are acutely aware that there is no such thing as a

harmless method in qualitative research, and this approach brings with it particular ethical challenges. We explore some of these before concluding with both the benefits and limitations of this innovative approach.

Working with the Senses

Since the early 1990s there has been an increasing interest in the study of the senses in society and culture (Classen, 1993; Classen, Howes, & Synnott, 1994; Howes, 2005; Howes & Classen, 2014; Stoller, 1997). Classen et al. (1994), leading proponents of sense studies, have encouraged us to heighten our awareness and acknowledgement of the senses. In particular, they urge us to attend to all the senses rather than just vision, which in the Western hierarchy of the senses tends to be privileged. Furthermore, Classen et al. emphasise “intersensoriality” or the integrated relationship between the senses, as well as the study of individual senses. Scholars, such as Ingold (2000) and Sawchuk and Josgrilberg (2011), encourage us to take an ecological approach, and examine human experience and perception as part of an integrated understanding of sensation, involving movement of the body as a whole within a broader environment.

Parallel to this increased interest in the senses has been a growing focus on the senses in qualitative research; this has to date been most prominent in anthropology (Paterson, 2009). An example of this is Stoller’s (1997) classic work on the anthropology of the senses and the use of a sensorial approach to doing ethnography. There is also the work of Pink (2009) which focuses on sensory ethnography; here she discusses both the sensorial experiences of research participants as well as ways for researchers to attend to their senses throughout the research process. Daykin (2004, 2008) points to the role of music as a research practice. Extending on the importance of sound in research, Hall, Lashua, and Coffey (2008) alert us to consider noise in interview settings, not as a distraction but as a potentially productive capacity. The use of “soundwalking” or “guided walks” or car journeys urge us to consider how walking or driving through places with participants can enhance our understandings of how participants experience place and space (Anderson, 2004; Clark & Emmel, 2010; Ross, Renold, Hollan, & Hillman, 2009). Sandelowski (2002) encourages researchers to maximize the use of our embodied selves and senses when collecting research data by incorporating the corporeal and the material, rather than assuming that the material is “neutral and mute” (p. 104). In this paper, we build on this body of work and address the call of a number of scholars to extend sensory research methodologies (Lorimer, 2005; Mason & Davies, 2009; Muir & Mason, 2012; Pink, 2009, 2011).

Working with Material Objects

In an empirical research context, the use of material objects is still in its infancy. However, there is a wealth of conceptual underpinnings to inform our thinking. Dewey (1934) is pivotal in bringing to our attention the role of objects in human experience. Since this seminal text many scholars have investigated our relationship with objects. Ingold (2007) points to the properties of materials to highlight the relational dimensions of these properties and the stories they tell. Jones (2015) combined an exchange of objects and storytelling to explore the emotive aspects of narrative interviewing. In a recent review of psychological research using material objects Solway, Camic, Thomson, and Chatterjee (2016) point to the different ways that material objects can effectively be used for both research and clinical purposes; they point to the benefits of material objects to evoke self-reflection and awareness in the process of meaning-making.

Actor network theorists (Callon, Law, & Rip, 1986; Latour, 1987; Law, 1985; Law & Hassard, 1999) have played an important role in re-conceptualizing the role of non-humans, where humans and objects relationally co-construct the other. The focus is on the network of relations and interactions and the practices that serve to establish and reinforce these relations. This is about the work of the human-nonhuman interactions. In the edited collection succinctly titled *Things*, Brown (2004) resonates these ideas when he focuses on what work things perform: this is “not about the things themselves but about the subject-object relation in particular temporal and spatial contexts” (p. 7). This body of work provides us with a useful conceptual base not only to reconsider human-object interactions, but also to integrate this with the senses in our consideration of sensory engagement with material objects.

Sensory Engagement with Material Objects

In examining what we mean by sensory engagement with material objects it is important to explore what it is, as well as what it is not. We are interested in the human-object interaction, with the humans comprising both researcher and participant. Taking our lead from actor-network theory, it is the human-object relations that are of interest rather than the given object or subject. We follow Brown (2004, p. 7) who stated: “They are questions that ask not whether things are but what work they perform – questions, in fact, not about things themselves but about the subject-object relation in particular temporal and spatial contexts”; we would add sensory contexts to this statement. We are interested in the work of objects as mediated by researcher and participant interactions, and in particular, emphasize the senses in these subject-object interactions.

In clarifying what we mean to be sensory engagement with material objects, it is useful to distinguish it from related methods. One of the most common approaches using material objects in a research setting is photo or image elicitation. Based on early works from visual anthropology and sociology (Collier & Collier, 1986; Wagner, 1978), photo or image elicitation has been extended by a number of visual scholars (Harper, 2002; Lapenta, 2011). In photo-elicitation approaches, photographs or other images are usually produced by the researchers and used with participants to elicit responses about the subject in question. Here, the visual artefact acts as a prompt to trigger memory or to prompt discussion of the participant’s understanding.

Rather than visual prompts, De Leon and Cohen (2005) describe the use of material probes in ethnographic interviewing. They divide these into firstly, object probes which are objects provided by the researcher or the participant, used to prompt or elicit memories from the participant. The second type of material probe is walking probes, where researcher and participant visit a physical environment and walk around, to encourage participants to talk about past or current associations with the physical surrounds. The purpose of these material probes is to stimulate participant responses, and trigger memories that may be buried. Our approach builds on that of De Leon and Cohen (2005) in that we are interested in the material object not just as a probe, but as an object with material and sensory properties with which participants engage and create meaning. We are interested in the ways that sensory engagement with material objects prompts memory and creates opportunities for new meanings and alternative kinds of conversations.

Romano, McCay, and Boydell, (2011) describe their use of material objects in a study of young adults’ recovery process from a first episode of schizophrenia. In this study participants were interviewed twice. At the end of the first interview, they were asked to choose a material object that represented their recovery process that would be discussed and photographed during the second interview. For Romano and colleagues, the object was primarily an elicitation tool to enable the participant to drive the interview. The photographs

of the objects provided a visual representation of the different ways that young adults experienced recovery from their first episode of schizophrenia. This is similar to the approach used by De Leon and Cohen (2005) in that the material objects are probes to elicit participants' experiences and understanding, with the added benefit of the photographs providing a visual record. As useful as this practice may be, neither of these approaches conceptually frame the materiality of the object or its sensory connections.

Our approach resonates more with the object-interview proposed by Nordstrom (2013). Nordstrom draws on Deleuze to blur the binary distinctions between subjects and objects and to examine how both relationally co-construct the other. Rather than acting as probes or prompts, in Nordstrom's approach objects and subjects were primary data sources, with subjects being participants and researchers, as well as those subjects embedded in the objects, such as photographs. The role of the researcher in Nordstrom's approach is that of mediator of relationships rather than interpreter; the focus is shifted from the traditional subject-centred qualitative interview, to one where "the purpose of the object-interview is to follow and work with the map of objects that constantly transform each other in a multidimensional map" (Nordstrom, 2013, p. 245). Although Nordstrom does not particularly focus on the sensory, her openness to these possibilities aligns with our approach of sensory engagement with material objects.

In summary, our approach calls for the use of material objects in research, not primarily as a probe or trigger, but for the sensory possibilities that initiate, shape and enable the relations between researcher and participant. Following Nordstrom (2013), our approach differs from other approaches, for example interviewing with photos, in two critical ways. The first is that the objects themselves are primary data sources; it is the sensory interactions and engagement with the object during (and after) the research that is important here. The second point is that images, such as photos, are uni-sensory, while objects have the potential to be multi-sensory. It is these combined points that contribute to the significance of our approach.

Doing Sensory Engagement with Material Objects

This section addresses a series of questions about undertaking sensory engagement with material objects. We draw upon examples from our use of material objects in a series of experiments conducted for the purposes of studying this methodology. This exploratory work with the methodology provided us with a shared experiential domain through which we could participate in, and reflect upon, the nature of our sensory engagement with material objects and the possible implications of this methodology for enhancing qualitative inquiry.

Experimenting with the Use of Sensory Engagement and Objects

Our exploratory research evolved through several stages, each incorporating sensory engagement with objects in the context of unstructured, open-ended exploratory conversations. From here on, we follow Nordstrom's (2013) lead and refer to these as object interviews. The first stage of our experiments arose from our shared interest in research ethics. Asking "how do you conceptualize yourself as an ethical researcher?" we set ourselves the task of collecting up to ten found objects from the natural environment that in some way spoke to us about our self-conceptions as ethical researchers. We collected these objects independently during a weekend retreat at an Australian beachside setting. Our found objects included items such as sea shells, small pieces of driftwood, dried seaweed, stones, grasses and pine needles. The following week we met to share the objects we had collected and discuss their significance for us as ethical researchers in the first of our object interviews. This process generated many questions for us and led us to develop subsequent explorations.

The next stage involved us inviting three colleagues to participate in our inquiry; we selected colleagues whom we thought would have varied degrees of openness to the idea of sensory methodology and asked them to select a few personal possessions that represented their sense of themselves as ethical researchers. We then met individually with our colleagues and in an informal, unstructured object interview, we asked them to tell us about their chosen objects in terms of their self-conceptions as ethical researchers. The structure and content of what they had to say differed widely, but we were struck with how powerfully sensory engagement with objects seemed to provoke and shape their emerging stories.

In the third stage, we selected the theme of hope in order to explore the nature of sensory engagement with researcher-selected versus participant/self-selected objects. As researchers, we each chose about 10 objects to refer to in talking about the meaning of hope in our lives during the object interview that followed. These objects included manufactured items such as a map of back alleys in Melbourne, a purple silk bag with a drawstring, a mini flashlight, and a postcard, as well as items from the natural world such as stones and freshly picked leaves from a lemon scented gum tree. The objects we selected, in this instance, were not necessarily chosen to be representative of hope, but rather as potential openings for discussion. In the second part of this exercise, playing the role of participants, we self-selected several objects from our personal possessions that in some way represented hope for us. In contrast with the items we selected as researchers, the items we selected as participants were more explicitly personal and included items such as a familiar perfume, a framed photograph and favourite pieces of jewellery. We met again to share and discuss our selected objects, alternating in our roles as researcher and research participant. We then spent time debriefing about our responses and the nature of our research interactions, locating places where the methodology led us to new questions and insights. In what follows, we draw upon examples from these experiments to identify and respond to salient questions arising from the use of sensory engagement with material objects.

What Is the Data in Sensory Engagement with Material Objects?

In considering the use of sensory engagement with material objects in a research context it is important to consider what we understand to be data and the methods of collection. We suggest that data comprises the objects and the human-object interactions. In terms of processes of interactions, we include the initial process of choosing objects prior to the object interviews, talk between researchers and participants about the objects, observations of how objects are positioned or handled during research interactions, and follow-up reflections from researchers and participants on the process of sensory engagement after object interviews are completed. We intend object interviews to be loosely structured, open-ended opportunities to engage in meaning-making through sensory engagement with objects, rather than a formal, structured interview setting. However, guiding questions on the part of the researcher are helpful; for example, "Tell me about your choice of these objects..."

It is important to have appropriate methods of recording or documenting the research interactions. A variety of methods are available. In our exploratory work, we concentrated on describing the objects through field notes, drawings and photographs. Standard techniques for audio and/or video recording could also be employed to document the research interactions. We took notes during our object interviews and discussions and wrote reflective memos afterwards to capture our emerging insights about how the objects shaped research interactions. We also identified that it may be important to attend to the relations between various objects. As Susan wrote in her reflections on selecting and sharing her objects with Marilys:

I recall identifying categories of objects that I had picked up and recognizing that I wanted to sort them in a meaningful way before presenting them to Marilys. I had a mental map of how I would lay them out and it became part of the meaning-making for me to consider the objects in relation with each other as well as with me and Marilys.

Although we did not ask our colleagues to journal about their reflections on the process of engaging with material objects, we suggest that it could be a valuable component of future research projects using object interviews.

By Whom and How Are the Objects Selected?

Researchers who wish to adopt the method of using sensory engagement with material objects need to consider a number of pragmatic aspects to maximize the research interaction. These include whether the objects will be selected by the researcher or the participant. In addition, there are decisions about the level of prescription provided in the instructions to participants; for example, whether the objects are to be found objects from a natural or other environment, or chosen from one's personal or other possessions, or left open for the participant to choose. It is important to remind participants that the most significant objects for this type of research are likely to be ordinary things encountered in everyday life.

In our experience, sensory engagement with material objects was most effective when the objects were self-selected by participants. In debriefing about our shared responses to using objects that were researcher-selected when exploring the theme of hope, we agreed that the process felt somewhat contrived. We felt that we had to consciously construct a story or set of associations for each of the researcher-selected objects presented, instead of allowing our sensory engagement with the objects to lead us more naturally into meaningful recollections or associations. Thus, we suggest that unless researchers have specific reasons for providing objects for participants, it is preferable to invite participants to choose the objects they wish to engage with, whether they are found objects or chosen from personal possessions. Not only does this provide participants with the ability to select what items are most relevant to the discussion, it also allows researchers the opportunity to share control of the interview (De Leon & Cohen, 2005).

As we discovered, objects do not have some inherent meaning that necessarily prompts the participant. It was interesting that with some of our colleague participants, when asked to select objects that were associated with their sense of being as an ethical researcher, some thought deeply about what they wanted to represent before choosing their object, while others chose the object first, and then developed the idea of what it meant to them during the object interview. Providing the flexibility in approach is important here. The process of sensory engagement with material objects is dynamic and requires that participants have the flexibility to reorient the trajectory of discussion, as they consider relevant.

What Happens During Research Interactions Employing Sensory Engagement with Material Objects?

The question of what actually happens during research interactions is central to our position. We found that integrating the use of material objects in research practice opened up a sensory engagement that added richness and complexity to the research knowledge generated. In our experience such engagement can occur spontaneously when interacting with objects through sight, sound, touch, smell and/or taste that lead us to see new associations or make new meanings from the experience.

In our first object interviews using the natural objects we found at the beach, we experienced the profound role of touch and smell in alerting us to previously unarticulated aspects of how we conceptualized ourselves as ethical researchers. Marilys had picked up a handful of dry but fragrant pine needles. Pressing the pine needles slightly in her hands as she talked, the fresh pine smell filled the room. Marilys reflected that she would normally just walk over pine needles on the ground and not even notice them. The process of crushing the pine needles and their ensuing smell evoked for Marilys a recognition of the ways that many ethically important moments in research practice are overlooked; it is not until you are sensitized to their presence that their ethical significance becomes apparent. Susan's experience with picking up a piece of dirty pink balloon at the beach triggered other kinds of reflexive insights. Why did Susan even pick up this item? In contrast with the other items Susan had chosen, namely, shells, stones and a gum nut, the piece of balloon was not natural, attractive or desirable to touch; it was in a category of its own in Susan's chosen objects. Susan was careful in the object interview about the way she handled the piece of balloon, picking it up with her fingertips and not wanting to really touch it. For Susan, the piece of balloon raised questions about who takes responsibility for the messy ethical concerns in research that are too hard and are just left unaddressed. Just as the piece of pink balloon was out of keeping on an otherwise clean beach, for Susan this represented the messy ethical aspects of research that no one wants to handle.

In the object interviews we did together and with our colleagues we were acutely aware of, and responsive to, the types of sensory interactions between participants and objects. In most cases, respondents held, stroked, crushed, smelled, viewed and in some cases, shook and rattled the objects. Participants interacted with the materiality of the object in a sensory way. Ingold (2007) reminds us of the material properties of objects that are practically experienced. As Marilys later wrote in a reflective memo about this:

It was through talking and holding the objects that I made meanings between the objects and the research question—the process of interaction and talking was important. Holding the physical objects (touch- piece of glass), smelling the objects (pine needles) was also important—senses evoked meaning-making.

It was through the sensory experience of the objects, through the crushing of the pine needles or careful non-touching of the dirty balloon that stories were elicited and meanings were evoked. It is for this reason that we point to the importance of interacting with actual material objects rather than say, photographs or other proxies of the objects themselves.

As we confirmed in our object interviews about the theme of hope, the objects we self-selected immersed us in the sensory, temporal and spatial dimensions of our relations with the objects. Touching and holding various objects offered familiarity, comfort and a sense of tangible connection to the stories we shared. Yet at the same time these objects situated our tellings and/or re-tellings in a new and different light, bringing emphasis to neglected aspects of the experience. In some cases, the objects also provided a focal point that seemed to facilitate continued sharing of stories, despite painful memories. For Susan, a silver bracelet engraved with an eagle both symbolized and provided strength as she recalled her struggle to cope with the sudden death of her former partner. In other cases, the objects themselves held great power and this shaped emergent relations between the objects, the interviewee and the researcher. For example, Marilys chose to share a letter conveying news that was pivotal in shaping her scholarly career. She read aloud from the original copy of the letter during the object interview and allowed Susan to look at it but was unexpectedly reluctant to allow Susan to touch it. In each of these cases, the stories that were evoked from these sensory interactions were from many years ago, and in some cases, decades ago. Both Susan and Marilys were surprised at the

strength of emotion that engaging with these material objects brought; through the telling of the stories emerging from these interactions, a re-visioning of the experiences unfolded. For example, Marilys's reluctance to allow Susan to touch the letter made her realise how precious this object had become for her; it was not only the news that it conveyed that was important but the letter itself had gained a new kind of importance.

Analytic Process: Interpretive Engagement

In the preceding section we have considered the processes for data collection with material objects to enhance sensory engagement. In the following section we discuss the analytic process. It is appropriate to use an analytic and conceptual approach that will provide insight into sensory experience. There are a number of phenomenological and interpretive theories of perception and embodiment that may be suitable when working with sensory engagement. Our aim is not to be prescriptive about theoretical approaches or methods of analysis but to point to some possibilities. In this section we outline the use of interpretive engagement (Drew & Guillemin, 2014) as a possible approach for those interested in using this sensory methodology.

Interpretive engagement is an analytical framework originally proposed for the analysis of participant-generated photographs (Drew & Guillemin, 2014). The framework, with respect to participant-generated photographs, comprises five elements: the researcher, the participant, the image and the context of its production, and the audience/s (anticipated or unanticipated). The process of interpretive engagement comprises three stages of meaning-making: through participant engagement (Stage 1); through researcher-driven engagement (Stage 2); and through re-contextualizing (Stage 3). This process is one of co-construction between researcher and participant. The three stages are not mutually exclusive but in combination provide a rich and rigorous analysis. With material objects, the three stages apply, with the participant-generated image replaced by the participant-selected material object. We briefly outline this analytic framework with an illustrative example, namely Susan's piece of dirty, pink balloon.

In Stage 1 of the interpretive engagement framework the focus is on meaning-making through participant engagement and object selection and description. This begins in the first moments of the research encounter when the participant considers how he/she will select an object and choice of object. As noted, some participants were clear about what object they were going to choose to represent the topic in question, while for others the process of meaning-making was more organic; for this latter group, it was often through the sensory engagement with the material object that the meaning was generated. Either way, this first stage of the interpretive engagement framework privileges the participant and his/her interpretation. In this stage, there are two data sources: firstly, a single or a set of material objects selected by an individual participant; and secondly, the participant's reflections and interpretations of that object/s and reflections on the process of selection, both of which are discussed during the research interview. In our example of Susan's piece of balloon, the choice of object was not pre-determined; it was through Susan's engagement with the object that the meaning of dismissed messy ethical concerns emerged. The focus of Stage 1 is on Susan's description of her choice of object and its meaning for her. A feature of Susan's objects is the relationship of the piece of balloon to the other objects that Susan selected. Of importance was Susan's process of arranging these objects during the object interview. Unprompted, Susan arranged the objects in a 2x2 grid pattern (Figure 1: Field note sketch of Susan's found objects from the beach; Figure 2 provides a photograph of Susan's found objects from the beach using her designated arrangement). In the notes following the interview, Susan noted that she wanted to sort the objects in a way that was meaningful to her; she had a mental map of the way she wanted to lay out the objects in relation to each other. Importantly she also noted her feeling of not

wanting the objects to be moved around from the mapping she had determined. In this first stage, it is Susan's interpretation that is privileged.

Figure 1: Field note sketch of Susan's found objects from the beach showing positioning of objects during interview

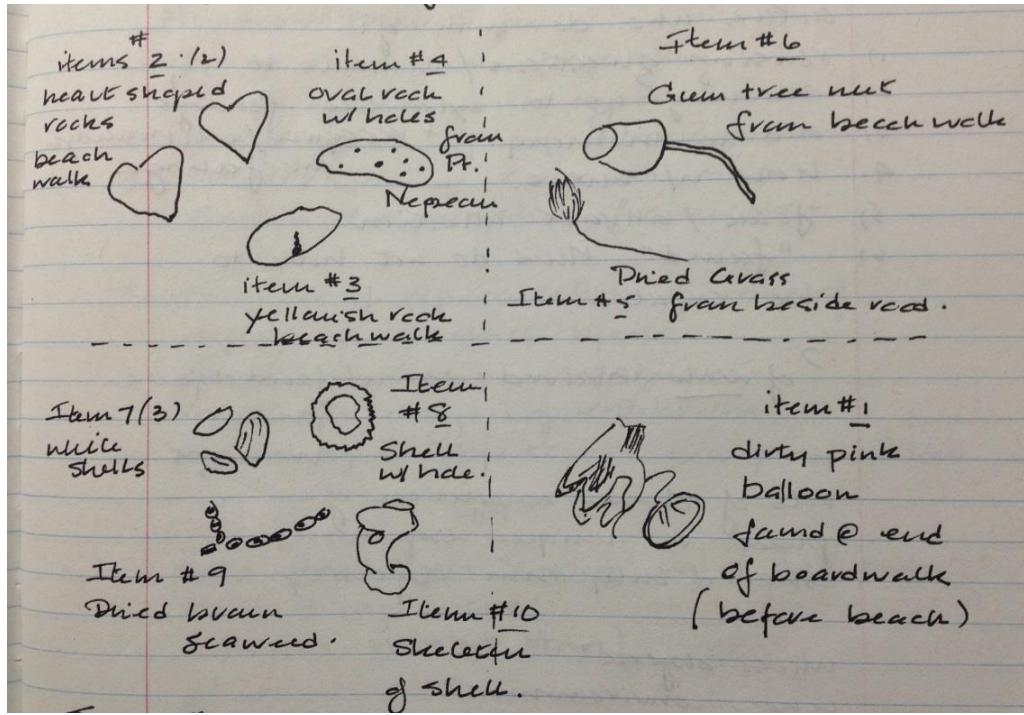


Figure 2: Photograph of Susan's found objects from the beach



Stage 2 of the interpretive engagement framework focuses on the researcher's interpretations, rather than being participant-driven as in Stage 1. Here, the focus is on the researcher and the examination of the various objects and interpretations. In addition to the data generated in Stage 1, namely the objects and the participants' interpretations of the objects and the selection process, Stage 2 involves additional data. This comprises the researcher's reflections on the participants' explanations that may or may not differ from those of the participants on the collection of objects as a whole, as well as any other data that may have been collected in the research project, for example, interview material or field notes. In Stage 2 there is much greater breadth of material, and depth of analysis, with the researcher being primarily responsible for analyzing these data sources for emerging patterns. It is important to note that the breadth of material is likely to comprise different material sources, depending on the overall research design. For example, the sources could include the material objects themselves, the participants' reflections and interpretations in verbal or transcribed form, the researcher's own reflections, and any other data collected in the research process. These sources are analyzed in combination, and interpretations of the non-material or non-visual forms must use a congruent method of analysis to ensure interpretive rigor. We have successfully used thematic analysis to analyze the non-material data and found it to combine well with the interpretive engagement framework.

In keeping with the interpretive engagement analytic framework (Drew & Guillemin, 2014), we have found it helpful to interrogate the material objects data with relevant interpretive questions. These interpretive questions are not designed to be prescriptive; rather their aim is to maximize interpretive potential. Much has been written about interpretive rigor in terms of qualitative research more generally; see for example, Given (2008). However, how to achieve interpretive rigor in sensory research is still open for discussion. A useful resource is to examine rigor in visual research which is somewhat more established as a methodology. Many visual scholars have made important contributions to our thinking about interpreting visual images in research in terms of developing a rigorous practice (Ball & Smith, 1992; Evans, 2006; Grbich, 2007; Harper, 2003; Jewitt & van Leeuwen, 2001; Oliffe, Bottorff, Kelly, & Halpin, 2008). In particular, we have drawn on the work of Rose (2016) with respect to her critical visual methodology. This methodology poses questions about the image and its composition, but of particular importance to us, asks questions about knowledges and interpretations that are both deployed as well as those that are excluded from the interpretation. Using Rose's questions as exemplars, we have suggested interpretive questions for the use of material objects in sensory research that we believe can work to ensure interpretive rigor.

Examples of potential interpretive questions include:

- What was being shown?
- How were the material objects presented by the participant? Were there multiple objects; if so, how were they presented in relation to one another?
- What relationships were established between the objects?
- How did the participant engage with the object/s sensorially?
- What use was made of different senses in the interactions between participant, researcher and object?
- Is there more than one possible interpretation of the object?
- What is the significance of time and place in context of the object and research encounter?
- Did the object enable the participant to convey understandings or emotions that may have otherwise be unsayable?

It is important to note that these questions on their own do not do the analytic work, but are, rather, features of the research analysis that maximize the interpretive potential. In the example of Susan's piece of balloon, her choice of object and interpretation is linked with other objects she has chosen and their interpretations, as well as objects and interpretations from other participants. The resulting interpretation is a co-construction of all these elements. The interpretive questions posed above suggest how one might ask questions about the objects and processes, as well as challenge or add to the array of possible interpretations. In the case of Susan's balloon, we were inclined through our prior collaboration on projects related to research ethics and visual methods to see that the relationship between natural and unnatural objects might parallel the relationship between ethics as a deeply personal aspect of lived experience and ethics as an institutionalized set of procedures and protocols. Thus, it was the relationships between the objects rather than features of specific objects per se that led us to begin conceptualizing the usefulness of objects in interviewing in a new way. The utility of the interpretive guidelines we have posed is further evidenced by placing emerging interpretations in the context of time and place. This led us to ask: What is the significance of choosing to select all the objects at a beach, over a period of two days? Would different kinds of objects have been selected in a different setting over a different time period?

The third stage of the interpretive engagement framework relates to meaning-making through re-contextualization. This stage does not involve new data. Rather the emphasis is on positioning or repositioning the interpretations generated in Stages 1 and 2 to the theoretical framework/s being employed and the relevant conceptual material within which the research is situated. In many ways, this is similar to other analytic frameworks where emerging interpretations are tested against relevant conceptual frames to settle on a robust analytic explanation. For example, in the case of Susan's balloon and other objects that she collected, we questioned the juxtaposition of pleasing natural objects with the discomforting balloon in relation to difficult ethical research situations that are also discomforting. We also discussed whether Susan's grid-like mapping of the objects was related to prescribed ethical codes of conduct in research.

Ethical Considerations

As with all research it is of the utmost importance to consider possible harm to both the participants and researchers, and we would add, to potential audiences of the research. In this section, we consider the ethical issues that would arise from research using sensory engagement that would be above and beyond those associated with qualitative research more generally. There has been little work to date that has explored the ethical issues associated with sensory engagement; visual research offers some particular interesting insights in relation to ethical issues (Warr, Guillemin, Cox, & Waycott, 2016). What is important in the context of sensory engagement is the ability of the senses to tap into a range of emotions, which may have otherwise remained unexposed. Harris and Guillemin (2011) explored the ability of the senses to evoke memories and experiences in often unexpected ways. It is this unexpectedness that poses risks in a research context. Participants, and potentially researchers, can be negatively affected by the related emotional reactions that may arise from engaging with particular material objects. It is important to remember that in our discussion of sensory engagement the focus is on research; it is not our intention to adapt this to become a therapeutic process (although it is possible that a therapeutic effect may arise). Another consideration relates to potential loss of confidentiality. It is possible that certain objects involving visual or auditory representations may reveal the identity of the participants or related others. This needs to be considered and appropriately addressed to ensure privacy is maintained, especially that of third parties.

An additional issue concerns ownership of the objects, in particular, found objects. Linked to this are considerations regarding permission for the researcher to touch or hold the objects chosen by the participant. Although this may be more pertinent when personal objects are involved, in our experience we have observed a great sense of propriety by participants over found objects that do not necessarily have any monetary value, but which acquire personal value for the participant during the period of the research encounter. Important points for negotiation between researcher and participant are who keeps the found objects following the research encounter; and whether participants are willing to grant permission for the researcher to take photos of the objects for use after the research interaction. If the researcher is allowed to keep the objects, who is responsible for disposal of the objects, and when should this occur?

Conclusion

In this paper we have focused on sensory engagement with material objects in a research setting. Based on a series of experimental endeavors, we argue that sensory engagement with material objects has the potential to add richness and complexity to meanings generated. Reflecting on our experiences we have provided considerations for data collection and data analysis in using this approach, as well as ethical concerns. In this concluding section, we summarize what we consider to be the benefits and limitations of using this approach, before pointing to future possibilities.

The benefits of sensory engagement with material objects for research include its potential to generate richer and alternative meaning-making, thus enriching our understanding of our world and our interactions within it. These benefits are realized in a number of key ways. First, following Nordstrom (2013), we point to the role of the objects as primary data sources, rather than as triggers or probes. The relationship between participants and objects is important here, with the researcher acting as a mediator of this relationship. We return to the contributions of actor network theorists discussed in the introduction, who remind us of the importance of focusing on the work of human-nonhuman interactions. In our case, it is through the interactions between human participants and material objects that research knowledge is generated. The second benefit points to the power of the senses which is often taken-for-granted, rather than explicitly used. Third, is the potential multi-sensory nature of objects, in contrast to uni-sensory images and photographs. Objects, such as the pine needles being crushed, stimulate the visual, sound, smell and touch, adding to the potential for different kinds of interactions. This contributes to the potential for different and heightened meaning-making in a social research context.

Sensory engagement with material objects provides an innovative and creative approach that provides a different kind of engagement between participants, researchers and objects. This is particularly useful when working with groups of participants or research topics which, because of sensitivity or abstractness, are not addressed or are rendered unspeakable. However, we add that even in apparently innocent research topics, some participants may perceive the topic as sensitive and challenging to engage with. Sensory engagement with material objects is an inexpensive and relatively straight-forward research method, not requiring any additional resources or time when compared to interview-based projects.

We are conscious that this approach, as well as our exploration of it through the various experiments we describe, has certain limitations. We were largely trying out the methodology in experiments conducted with the two of us and with colleagues previously known to us. This may have shaped the insights we arrived at. However, we are convinced that one of the benefits of objects-based research that warrants further attention is the degree to which the interactions with objects restructure social interactions, empowering participants with a greater sense of autonomy and control in the interview situation. As mentioned above in reference to ethical

aspects arising from our use of objects in interviewing, participants maintained an implicit ability to determine the placement of their objects and also to direct the flow of conversation around their objects.

We have not yet conducted a comprehensive research project employing the methodology we describe here; however, in our experimental endeavors discussed here we have piloted the approach and plan to implement it within the context of a collaborative project utilizing object interviews and sensory engagement to facilitate and explore experiences of mental health and dementia. One of the most daunting issues we foresee arising from the use of sensory engagement with material objects is how to best represent and disseminate the findings. We can use standard methods to write about research findings from this methodology; however, it is important to ask if there are more innovative and evocative ways to represent this kind of work. Furthermore, given the importance of audience in contextualizing the work, it is useful to consider whether there may be ways of incorporating audience responses to the work. In visual research there is a growing acceptance of using visual methods of representation such as photographs and drawings. If we take seriously the power of the senses to open us to a wider experience of engagement in knowing and understanding experience, we must find alternative ways to represent our research findings and to evoke something of the sensory experience of engagement for our audiences.

In suggesting that we incorporate alternative approaches to representing the findings of this work, we look to recent arts-based approaches to knowledge translation that seem to embody the potential to engage audiences in sensorially rich and evocative ways (see for example, Boydell, 2011; Cox, Kazubowski-Houston, & Nisker, 2009; Lapum, Church, Yau, David, & Ruttonsha, 2012). One such approach that is especially relevant to the methodology proposed here is to display the range of research objects alongside written or auditory excerpts from the object interviews. The audience for such exhibits might also be permitted to handle selected objects where appropriate and/or record their own responses to the objects. Clearly this format is non-digital and requires face-to-face engagement. Another example, allowing for digital access, is the interactive website created by researchers in the UK studying experiences of chronic pain and non-verbal ways of communicating pain. The website (www.communicatingchronicpain.org) is designed to look like connecting neurons and participants are encouraged to explore experiences and dimensions of pain through various pathways featuring the stories, poems, and images of persons who live with chronic pain (Tarr, Biquelet, Cornish, & Gonzalez-Polledo, 2015).

These approaches also challenge us to consider associated ethical issues that are above and beyond other related research methods. We have outlined ethical issues around potential emotional harm, confidentiality and ownership of the material objects. Although it is not possible here to fully address these ethical challenges, we offer a few pertinent comments. Firstly, sensory engagement in research requires a process of ethical reflexivity on the part of the researcher, that is, to have an awareness of the researcher's role in the research and the ethical consequences of this. Secondly, informed consent cannot be a once-off, but rather should be approached as a process during the research period. In this way, different ethical issues that arise, such as possible ways of presenting the research findings in material and visual form, and disposal of the objects can be negotiated with participants; consent that is truly informed can then be granted at various stages.

We believe that our emerging approach offers new and innovative opportunities in research and other contexts. Susan has, for example, observed the vibrant impact of employing objects-based approaches to teaching in a session where students are invited to bring an object to class and introduce themselves by speaking briefly about the object and its connection to their values as a researcher. We also suggest there is great potential for use of object-based approaches in the study of illness and other phenomena that may traditionally be perceived as

difficult to explore. Recognizing the value of such engagement is the example of a study involving hospital patients handling museum objects on loan (Paddon, Thomson, Menon, Lanceley, & Chateerjee, 2014); a process that, among other things, resulted in increased well-being and happiness. It also offers potential for use with participants who may find it difficult to articulate their experiences either because of physical or emotional challenges or may only have limited use of one or other of their senses. In addition, this approach offers an opportunity to link with emergent understandings of the relationship between neuroscience and the senses; a pertinent example is the work of Wilson (1998) that examines the importance of the hand and touch more generally in cognition, memory and other aspects of brain function central to tasks of meaning-making. To fully explore these possibilities, we encourage researchers to employ these approaches, experiment with various options, and report on what is learned, in terms of both benefits and challenges, so that we can all learn from such endeavors.

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