

CHAPTER TEN

ENGAGING MUSEUM VISITORS IN DIFFICULT TOPICS THROUGH SOCIO-CULTURAL LEARNING AND NARRATIVE

LYNDA KELLY

It has long been recognised that learning plays a central role in people's lives and is essential to our humanity (Confucius undated; Dewey 1938; Bowen and Hobson 1987; Claxton 1999). Learning is an individual and social process in which humans are constantly engaged, both consciously and unconsciously. Dewey stated that true learning has “longitudinal and lateral dimensions. It is both historical and social. It is orderly and dynamic” (1938, 11). Dewey also suggested that learning was:

- the capacity to act intelligently in new situations through exercising personal judgment
- the interplay and interaction of objective (external) and internal factors
- a transition between individuals and their current environment
- a lifelong process of growth
- social—a shared common experience
- flexible, yet directed.

More recent learning theories have focused on the conjunction between the individual learner and the socio-cultural context of the learning, with an emphasis on the individual as an agent of change (Rennie and Johnston 2004; Fosnot 2005). Current theories of learning also focus on the meanings individuals make based on their experience—alone, within a social context and as part of a community (Falk and Dierking 1992, 2000; Matusov and Rogoff 1995; Hein 1998; Leinhardt and Knutson 2004). Museums are unique contexts for learning, often called “free-choice” learning environments (Falk and Dierking 2000). Museums have the

opportunity to shape identities—through access to objects, information and knowledge visitors can see themselves and their culture reflected in ways that encourage new connections, meaning-making and learning (Falk and Dierking 1992, 2000; Silverman 1995; Weil 1997; Hein 1998; Bradburne 1998; Hooper-Greenhill 2000; Falk 2004).

Museums have developed from being repositories of knowledge and objects to having a “multifaceted, outward looking role as hosts who invite visitors inside to wonder, encounter and learn” (Schauble et al. 1997, 3). Falk and Dierking suggested that museums “need to be understood and promoted as integral parts of a society-wide learning infrastructure” (2000, 225) as they are an important part of a broader educational environment and complement other forms of learning.

Museums have always seen themselves as having an educational role. The earliest museums were founded on the premise of “education for the uneducated masses” (Bennett 1995), “cabinets of curiosities” (Weil 1999) established to “raise the level of public understanding ... to elevate the spirit of its visitors ... to refine and uplift the common taste” (Weil 1997, 257). The past ten years have seen a conceptual change from thinking about museums as places of education to places for learning, responding to the needs and interests of visitors (Falk and Dierking 1995, 2000; Bradburne 1998; Weil 2002; Falk 2004; Rennie and Johnston 2004). Weil stated that museums need to transform themselves from “being about something to being for somebody” (1999, 229).

Literature about why people visit museums has revealed that the overwhelming reason given was for some type of “learning experience”, usually described as education, getting information, expanding knowledge or doing something worthwhile in leisure. Often the word “learning” was used, which was linked to higher-order fulfillment of personal needs and enhancing self esteem (Kelly 2007). Falk reported that people who visited museums valued learning, sought it in many ways and were usually better educated than the general population:

The primary reason most people attend museums, whether by themselves or with their children, is in order to learn. ... [Therefore they are] likely to see museums as places that provide opportunities for them to expand their own and their children’s learning horizons. (1998, 40)

Prentice’s research into recollections of why people visited museums found that “motivations of ‘to learn’ and ‘broaden general knowledge’ were reported irrespective of visitors’ educational level, social class or age” (1998, 53). Jansen-Verbeke and van Rekom’s study of visitors to Rotterdam, specifically the Museum of Fine Arts, demonstrated that the

central motivation for visiting the art museum was "... to learn something" (1996, 367). Similarly, Combs (1999) discovered that people visited the Winterthur Museum, Gallery and Garden (in the US) primarily for learning and recreation. Mitchell's (1999) study of family visitors to the Australian Museum, Sydney found that while many factors triggered the decision to visit, the most important reason cited for family groups was "to learn" closely followed by "entertainment". Results from surveys of 413 visitors to the Australian Museum demonstrated a number of factors that motivated museum and gallery visits, with the principle ones (in order of choice) being experiencing something new, entertainment, learning, family interests and doing something worthwhile in leisure (Kelly 2007).

The practice of education in museums has a long history (Hooper-Greenhill 1994; Roberts 1997; Hein 1998). Whichever theory was foregrounded by scholars and practitioners was largely dependent on both their epistemological position; their background and training; and their beliefs about how knowledge was created. As Hein (1998) argued, whether knowledge was acquired independently of the learner or constructed in the mind by the learner was an important component of how learning was viewed and what epistemological path was followed. Hein also emphasised constructivism as an approach to developing and assessing museum learning experiences. Constructivism is a theory of learning that focuses on the learner and the meanings they make based on their prior experience, knowledge and interests. Constructivism had a major influence on the ways that museums thought about learning during the 1990s and was widely adopted in museum practice. Museum learning experiences provided under a constructivist framework encourage learners to use both their hands and their minds to experiment with the world and reach their own conclusions, through choosing what they want to attend to (Hein 1998). Many of the principles underpinning a constructivist approach to learning have now been captured within socio-cultural theory, which is being increasingly seen as a more holistic approach to thinking about and designing museum learning experiences, especially those dealing with difficult or contentious subject matter.

Given the key role learning plays in museums, this chapter considers socio-cultural theory as a conduit for engaging visitors with difficult topics and assessing their museum experience. A socio-cultural approach to explaining visitor learning is applied through analysing summative evaluation of visitors to an Australian Museum exhibition that tackled the difficult topic of death, titled *Death—The Last Taboo*. The place of narrative in museum exhibitions is also considered through analysing visitor responses to the confronting aspects of the exhibition. In considering

these two areas it is recognised that curatorial decisions play a key role in developing exhibitions, however these will not be addressed here as the focus is solely on visitors' responses and how that relates to their own experience.

Socio-cultural theory and museums

Socio-cultural theory is becoming increasingly prominent in current museum learning literature as a framework for research (Schauble et al. 1997; Leinhardt et al. 2002; Ellenbogen 2003a, 2003b). Socio-cultural theory is based on the idea that human activities take place in cultural contexts through social interactions that are mediated by language and other symbol systems and shaped by an individuals' historical development (Matusov and Rogoff 1995; Ash 2003; Sedzielarz 2003). It also understands, accounts for and makes explicit the "... unplanned intersection of people, culture, tools and context" (Hansman 2001, 44), emphasising the importance of culture, environment and history in every learning context and event (Schauble et al. 1997). Socio-cultural theory emerged from Vygotsky's work, who proposed that learning is a socially-mediated process where learners, both adults and children, are jointly responsible for their learning (1978).

Falk and Dierking suggested that "who we are, what we are, and how we behave are products of the socio-cultural context in which we are immersed" (2000, 38). They concluded that learning was essentially an individual construct: "The socio-cultural context defines both who we perceive ourselves to be and how we perceive the world we inhabit" (2000, 39), as well as a social experience where "meaningful learning results when a person is able to actively construct and find personal meaning within a situation. Virtually all such learning is either directly or indirectly socially mediated" (2000, 41). They further argued that

... all learning is situated within a series of contexts ... an organic, integrated experience ... a product of millions of years of evolution, an adaptation that permits an ongoing dialogue between the whole individual and the physical and socio-cultural world he or she inhabits. (2000, 10)

Falk and Dierking proposed the contextual model of museum learning to account for factors they identified in their earlier work (1992), however with a more holistic view that recognised the long-term nature of learning (Figure 10.1).

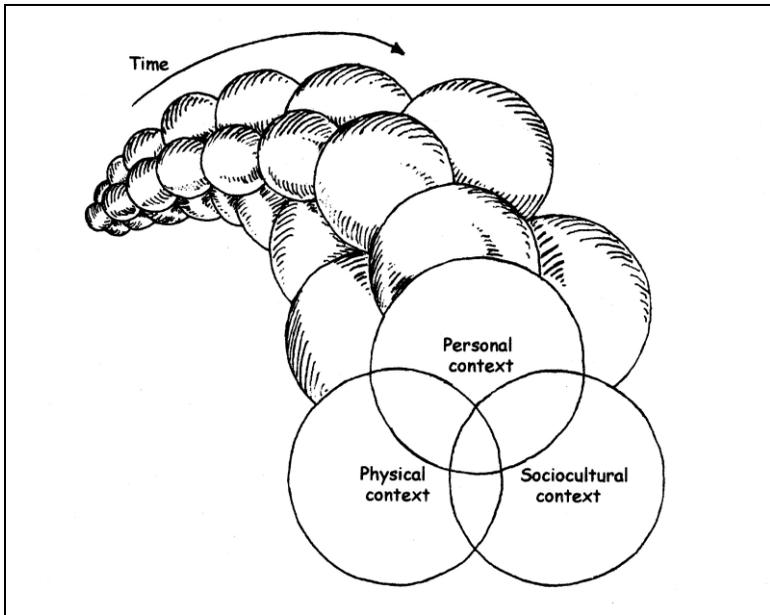


Figure 10.1 The contextual model of learning. (Source: Falk and Dierking 2000, 12)

In this model the physical context consists of the tools and settings of the museum, including architecture, design, objects and subsequent reinforcing events and experiences outside the museum. The personal context includes motivations and expectations, prior knowledge, experience and beliefs, interests, choice and control; as well as how these are perceived, filtered and ultimately incorporated into memory and learning. Finally, the socio-cultural context accounts for within-group mediation, facilitated mediation by others and cultural mediation (Falk and Dierking 2000). It was suggested that knowledge is constructed through social mediation across members of a group, both as an individual process and through participation in a community of practice.

A range of other practitioners have explored socio-cultural theory in a museum context (Matusov and Rogoff 1995; Schauble et al. 1997; Falk and Dierking 2000; Leinhardt et al. 2002; Paris 2002; Ellenbogen 2003a, 2003b). From an analysis of this literature four interlinked elements that underpin socio-cultural theory can be identified: individual, culture, environment and historical development, illustrated in Figure 10.2.

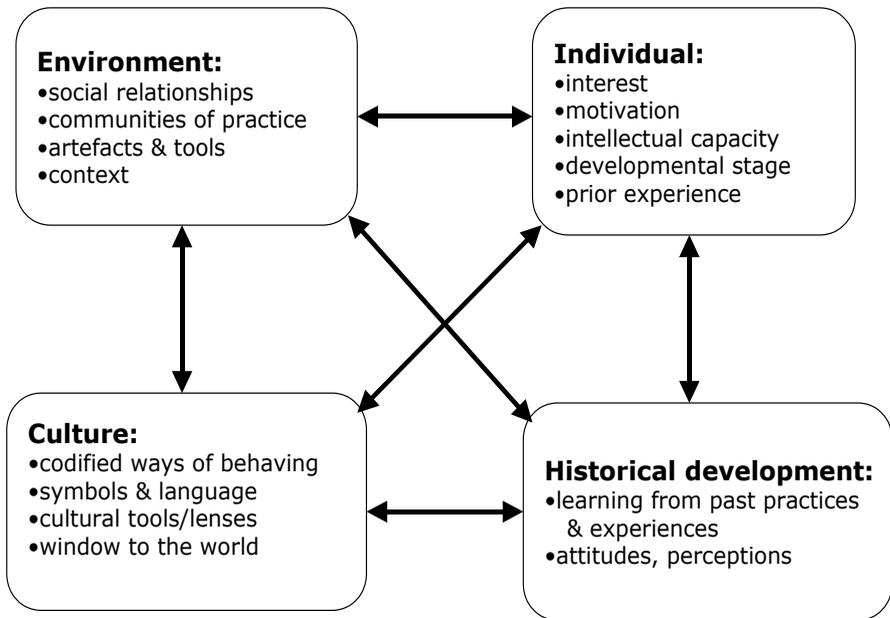


Figure 10.2 Socio-cultural theory. (Source: Kelly 2007, 56)

Several aspects of socio-cultural theory relate to the individual, including interests, motivation, intellectual capacity and development. Initial approaches to museum learning were often focused on the learner as an individual. Although knowledge, learning and meaning-making is essentially an individualised process, the social context and tools provided at the time are key factors in both what is learned and why it is learned, based on a person's interests and motivation. The important role of individuals, their intellectual capacity and level of development need to be acknowledged, coupled with the recognition that individuals also function within a socio-cultural framework (Wenger 1998).

Culture refers to a person's adaptive way of life, which is formed through customary ways of behaving; sets of codes and signals; use of artefacts and tools; participation in formal and informal institutions; and within a set of social relations. These, in turn, are codified through language (Ogbu 1995; Falk and Dierking 2000). A set of underlying assumptions make customary behaviours meaningful within a particular culture:

Culture is the framework or 'window' through which members of the population see the world around them, interpret events in that world, behave according to acceptable standard, and react to perceived reality. (Ogbu 1995, 80)

As children develop they learn the appropriate behaviours and social norms of their culture that make customary behaviours meaningful within that culture. Falk (2004) points out that culture also plays a strong role in shaping an individual's identity.

In socio-cultural theory environment encompasses the physical context, including the artefacts and tools that are provided, as well as social relations within a group and communities of practice (Lave and Wenger 1991; Matusov and Rogoff 1995). In a museum context a community of practice is comprised of the interplay between the mediation provided by the museum environment, in terms of objects, interpretive tools and texts, and individuals and their participation in a community, such as a family, a school or a group of friends. These ongoing social interactions with artefacts and tools are where meaning is made and learning happens.

The historical development dimension in socio-cultural theory accounts for cultural practices, as previously discussed (Ogbu 1995), as well as lived histories and experiences within multiple communities of practice. The role of prior knowledge and interests (Roschelle 1995) that shape attitudes, values and learning are also accounted for in historical development. Perceptions and expectations of museums, as well as previous experiences with them, are key historical factors impacting on the individual. Research has continually found that the characteristic with the most impact on adult museum visits is whether they were taken to museums as children and the types of experiences in which they engaged (Falk and Dierking 1997; Ellenbogen 2002).

Leinhardt et al. proposed the following definition of museum learning derived from socio-cultural theory:

learning as meaning construction, a socially mediated phenomenon that was a consequence of dialogue among the curatorial premise, the supporting tools of signage and other symbol systems, and the visitors themselves ... learning as a conversational elaboration [where] the language becomes enriched by specific details of objects and themes from the museum and reflects the affective and personal connections to the museum in a way that goes beyond simple statements of like or dislike or identification. (2003, 25)

It has been recognised that museums are sites where a socio-cultural framework could be applied to learning since most people visit in some type of social group and come with specific prior interests and knowledge (Schauble et al. 1997; Leinhardt et al. 2002; Paris 2002). Museums are mainly free-choice, providing a wide range of tools which visitors use to make their own meaning, both as an individual and part of a community (Hein 1998; Falk and Dierking 2000). Paris (1997) outlined the way that socio-cultural views of learning could be integrated into a theory of museum learning. He stated that to facilitate meaningful learning museums need to create environments that encourage exploration and enable meaning to be constructed through choice, challenge, control and collaboration, leading to self-discovery, pride in achievements and learning, where visitors “may ‘learn’ more about themselves and their experiences through reflection” (Paris 1997, 23).

Museums and the role of narrative

The potential of narrative approaches to learning have been explored more recently by museums. It is recognised that humans are natural storytellers—since ancient times humans have been using stories that represent an event or series of events as ways to learn (Abbott 2002). Bruner (1986) suggested that humans employed two modes of thought—paradigmatic (or logico-scientific) and narrative. He described imaginative narrative as leading to

good stories, gripping drama, believable (though not necessarily ‘true’) historical accounts. It deals in human or human-like intention and action and the vicissitudes and consequences that mark their course. It strives to put its timeless miracles into the particulars of experience, and to locate the experience in time and place. (1986, 13)

Roberts (1997) used the framework of narrative to explain the shifts in museum education theory over time, and suggested a narrative approach to educational practices as a way to enhance the ways visitors engaged with museums. Museums are ideal places where stories can be told that encourage visitors to make their own meanings and learn from them. Bedford noted that:

Stories are the most fundamental way we learn. They have a beginning, a middle, and an end. They teach without preaching, encouraging both personal reflection and public discussion. Stories inspire wonder and awe; they allow a listener to imagine another time and place, to find the

universal in the particular, and to feel empathy for others. They preserve individual and collective memory and speak to both the adult and the child. (2001, 33)

Ideas about narratives have been developed and applied to museums by a range of writers and researchers. Allen (2004b) researched the use of narrative tools as ways for visitors to make meanings about science. Allen defined narrative in a museum context as taking the personal perspective, involving a series of events, containing emotional content and authentic in origin, with someone telling the story. Allen (2004a) also drew attention to the problem that the museum sector still does not clearly understand how the power of narrative could be used to enhance visitor learning, specifically about scientific principles. McLean (2003) described the ways visitor experiences could be constructed in different types of learning environments, using the analogy of “the campfire, the cave and the well” as ways to demonstrate how humans have been storytellers for a very long time—such as yarning around a campfire, sharing experiences in a cave whiling away the long winters and gossiping around the village well.

Bedford (2001, 2004) and Rounds (2002) considered that narrative was a powerful way that cultural and social history museums, in particular, engaged visitors, with Bedford proposing that storytelling was the “real work” of museums. Bedford argued that stories aided humans in defining their values and beliefs and allowed the listener to project their own thoughts, feelings and memories onto the story and “make connections between museum artifacts and images and visitors’ lives and memories” (Bedford 2001,,30).

Socio-cultural theory and narrative: *Death—The Last Taboo* exhibition

Research conducted as part of the *Exhibitions as Contested Sites* project found that museums were considered trusted places for gaining information about difficult and contested topics: “People who have discovered the value of museums use them as one of a wide range of information resources” (Kelly 2006, 2). Data from that study suggested that museums were related strongly to trust, reliability, credibility and authority, as well as places for education and researching subjects of interest to visitors. It was suggested that the educational role of the museum could be to “... provide visitors with information about issues that museums are best equipped to deal with in an open, honest and

truthful way through providing object-rich learning experiences” (Kelly 2006, 6).

In 2003 the Australian Museum staged an exhibition on the difficult and potentially confronting topic of death, called *Death—The Last Taboo*. The aims of the exhibition were, in an overall sense, to talk about a subject that was not often discussed while answering many questions people are reluctant or scared to ask. Other purposes of the exhibition were to demystify death, especially as it is so sanitised in a Western society and to provide an opportunity for people to consider death at a time and place removed from it. The Museum project team chose to focus on the practical aspects of what happens after a person dies, the choices people have about these and to make the experience as real as possible through providing full, factual details about the processes that occur after death. An important decision early in the planning was to make the exhibition object-based using the Museum’s collection as much as possible.

The topic of death had the potential to be controversial, however, given the research cited above, the Museum felt it was the appropriate venue for such an exhibition and that the topic could make use of the Museum’s extensive cultural collections and scientific expertise. In the early stages of exhibition development, care was taken to identify what information was required from potential visitors through a front-end evaluation¹. Five focus groups were undertaken with visitors to museums to understand their general attitudes towards death; gauge interest and expectations in the topic of death; and provide guidance about content and presentation. An important aspect was to test how far the Museum could go in showing objects and visual material that could be considered “gruesome”.

Overall, it was found that the target audience for the exhibition was adults, and that visitors expected the exhibition to have both a scientific and a cultural focus. Most felt that showing confronting objects and visuals within the context of the Museum and its collections was essential for visitor engagement and learning, rather than just for morbid curiosity. Potential audiences were also interested in stories surrounding death and how attitudes have changed both across cultures and over time.

The summative evaluation of the exhibition encompassed both qualitative and quantitative studies with visitors to *Death—The Last Taboo*. The aim of these were to provide an overview of visitors’ responses to the exhibition, specifically to obtain a visitor profile, motivations for attending, what they most liked / disliked, and other general information about the exhibition such as key messages and design aspects. A quantitative survey of 151 visitors was conducted over two weeks in June 2003. The data showed that visitors to the exhibition were predominantly females visiting

in groups. A sizable proportion (46 per cent) was new visitors. There was a very high satisfaction with the exhibition, with 86 per cent of visitors rating it highly; 95 per cent stating they would recommend the exhibition to others and 88 per cent of visitors thought it met or exceeded their expectations. The data also demonstrated that visitors were easily able to articulate that the main messages of the exhibition were: different ways of dealing with death (52 per cent of respondents); demystifying death (28 per cent); death is a part of life (24 per cent); and to increase general understandings about death (12 per cent).

From these interviews people were recruited to participate in one of four focus groups held during the last week of August 2003 (towards the end of the exhibition showing). As part of the process, visitors were taken on a tour back through the exhibition and asked how they remembered feeling and thinking at various sections of it. Responses to some of the more confronting material in the exhibition were also explored in detail.

As noted earlier, socio-cultural theory is underpinned by four essential elements: *individual*, *culture*, *environment* and *historical development*. The outcomes of the focus group aspect of the evaluation have been identified as resonating with the four elements of socio-cultural theory. In relation to the *individual* component it was found that personal responses to death were based on an individual's experiences and prior experiences with death: "I'm coming to terms with death as an old lady and coming to this was part of that, accepting it and so on". Another visitor, when reminiscing about the mortuary section, commented that "I spent a long time on the instrument cabinet looking at the explanation of what they use on what part of the body. You'd never see anything like this. Then you think this is someone's job...". Others thought that death was a thought-provoking topic that was well executed: "It made sense of something that's hard to make sense of". Visitors also stated that the exhibition demystified death and made it part of the everyday for them: "We all know we are going to go, but very few people can talk about it the way we're talking about it now". They also felt that the exhibition provided good, factual information presented in a sensitive way: "It was trying to create understanding, death is something that happens, this is how you can deal with it".

Visitors demonstrated an interest in how death was treated across different *cultures*, with the realisation that a Western view of death could be quite narrow, and an appreciation of what we can all learn cross-culturally. This is closely related to the *environment* aspect of socio-cultural theory, where visitors were also keenly interested in the idea of

death as a social practice across a wide range of cultural contexts, as well as the artefacts and tools employed across these different contexts:

I find it interesting that we have these fairly rigid cultural experiences that are the norm for us, but all the cultures are so different and what we do is so different. For some people it's a huge celebration, others have a huge mourning period. The way we deal with it is so different and it's usually defined by our culture.

This comment from a visitor about the crematorium section of the exhibition demonstrates the understanding gained by visitors about the processes after death: "When you're at the crematorium the curtains close and that's the end of what you see and you always wonder what happens now? This shows you what happens behind the curtain".

Finally, the *historical development* component of socio-cultural theory was manifest from the focus group data where visitors discussed how practices have changed over time, and expressed views about practices that may seem "quaint" today were part of deeply held values from past eras. One of the most popular exhibits was a series of showcases showing Victorian mourning attire and objects. Not only were many visitors not aware of these practices they were amazed that many of these have become inherent in modern responses to death, such as in wearing black and some of the formalities of Western death rituals: "It's weird how they wore mourning dress for something like two years. The wife does this long and the children do this long etc. Where does two years come from? It just shows the formality of that generation I guess. I wonder where that stuff went?" As well as the idea that history was not very long ago and therefore "odd" practices can be appreciated within the context of that era: "They had the photos families took of people when they died and they used to keep them in their locket because it reminded them of that person. That's really freaky and that only happened 100 years ago. It's odd but it's what they did".

As mentioned earlier, narrative is a key way that visitors engage with museum exhibitions and can be a very powerful tool to assist visitors in dealing with difficult and contentious topics. One area of the exhibition that was particularly confronting for visitors was the final section that contained six personal stories, each consisting of a simple showcase with objects and text. The evaluation showed that these stories were extremely powerful for visitors, with the narrative approach taken considered both respectful, interesting and very moving. Two exhibits in this area in particular evoked strong responses. The first consisted of a shoebox given back to a family with the charred personal effects taken from the handbag

of their mother, who had died in a car accident. The other showcase contained a pair of boots worn by a suicide victim alongside the original suicide note. Visitors reported that this section was easy to engage with because of the real stories and objects from people : “I found that last part poignant and moving because they were contemporary deaths and the objects in the showcases were so evocative. I was drawn back to them several times, I couldn’t leave the exhibition because of that, I kept circling around them”. Visitors were both surprised and moved at how candid people could be about their feelings and in doing so learned about how others approached and dealt with death, as well as prompting some to think about how they might mourn loved ones: “... [the personal stories section] was fascinating and so unexpected to see in an exhibition. It showed what you actually get reduced down to and it was reality. It was somebody’s story...”. This area had particular resonance for those who had experienced a death recently: “I lost my partner only a few years ago and I was captivated by those images and the sense that they reflected a person that had lived and loved with other people and that was the remnants of them apart from memory”. As this was the final part of the exhibition visitors felt it was a good way to end their visit, with most saying they left feeling calm and thoughtful, having had a rewarding and moving experience.

Socio-cultural theory, narrative and museum exhibitions

Socio-cultural theory has been suggested as an appropriate theoretical framework for museum learning as it accounts for meanings made within a social context, rather than facts learned (Schauble et al. 1997; Jeffery-Clay 1998; Leinhardt et al. 2002; Ellenbogen et al. 2004; Falk 2004; Rennie and Johnston 2004). In discussing museum learning Matusov and Rogoff stated that “Museums, as educational institutions, provide opportunities for people to bridge different socio-cultural practices and, through this process, to bridge different institutions and communities” (1995, 101).

When applied to a museum exhibition socio-cultural theory demonstrates that visitors come to understand the context of the world they live in through strong, individual and shared personal connections. In terms of *Death—The Last Taboo*, the way the exhibition was approached provoked thought and discussion: “It spurred me on to think about death because at my age we don’t think about death. I never really considered what kind of casket I’d like”. Overall, the exhibition added to public understanding about a very important topic: “I think I’m more capable of dealing with

death now than what I was before I went in there just because I know so much more about it”.

As also discussed in this chapter, narrative is a key way for visitors to engage with topics that are difficult and confronting. The power of narrative when applied to such topics is best summed up by two visitors’ responses to the exhibition: “I liked the part where the guy killed himself and they actually showed a picture of where he did it and the lady who was killed in a car crash and the charred remains of her belongings and how her relatives didn’t know what to do with them...”. Museum exhibitions can be profoundly moving for people and can encourage visitors to respond to a difficult topic as well as being very thoughtful and reflective on their learning and how these topics relate to their everyday lives: “... I loved the way they told people’s stories. It made it real and you could think what if that was my mother or brother. You started thinking well what’s in my pockets when I walk out the door—what would be in my box?”

References

- Abbott, H. 2002. *The Cambridge introduction to narrative*. Cambridge: Cambridge University Press.
- Allen, S. 2004a. Designs for learning: Studying science museum exhibits that do more than entertain. *Science Education* 88 (Supplement 1): S17–S33.
- . 2004b. *Finding significance*. San Francisco: Exploratorium.
- Ash, D. 2003. Dialogic inquiry and biological themes and principles. *Journal of Museum Education* 28 (2): 8–12.
- Bedford, L. 2001. Storytelling: The real work of museums. *Curator* 44(1): 27–34.
- . 2004. Working in the Subjunctive Mood: Imagination and Museums. *Curator* 47(1): 5–11.
- Bennett, T. 1995. *The birth of the museum: history, theory, politics*. London: Routledge.
- Bowen, J. and P. Hobson. 1987. *Theories of education: Studies of significant innovation in western educational thought* (2nd ed.). Brisbane: John Wiley and Sons.
- Bradburne, J. 1998. Dinosaurs and white elephants: The science centre in the 21st century. *Museum Management and Curatorship* 17 (2): 119–137.
- Bruner, J. 1986. *Actual minds, possible worlds*. Cambridge: Harvard University Press.

- Claxton, G. 1999. *Wise-up: The challenge of lifelong learning*. London: Bloomsbury Publishing.
- Combs, A. 1999. Why do they come? Listening to visitors at a decorative arts museum. *Curator* 43 (3): 186–197.
- Confucius, trans D. Lau. 1979. *The Analects*. London: Penguin Classics.
- Dewey, J. 1938. *Experience and education*. New York: Kappa Delta Pi.
- Ellenbogen, K. 2002. Museums in family life: An ethnographic case study. In *Learning conversations in museums*. Ed. G. Leinhardt, K. Crowley and K. Knutson, 81–101. Mahwah: Lawrence Erlbaum Associates.
- . (Ed.). 2003a. Sociocultural perspectives on museums part 1. Washington: Journal of Museum Education.
- . (Ed.). 2003b. Sociocultural perspectives on museums part 2. Washington: Journal of Museum Education.
- Falk, J. 1998. Visitors: Who does, who doesn't and why. *Museum News* 77 (2): 38–43.
- . 2004. The director's cut: Toward an improved understanding of learning from museums. *Science Education* 88 (Supplement 1): S82–S96.
- Ellenbogen, K. and L. Dierking. 1992. *The museum experience*. Washington: Whalesback Books.
- . (Eds.). 1995. *Public institutions for personal learning: Establishing a research agenda*. Washington: American Association of Museums.
- . 1997. School field trips: Assessing their long-term impact. *Curator* 40 (3): 211–218.
- . 2000. *Learning from museums: Visitor experiences and the making of meaning*. Walnut Creek: AltaMira Press.
- Fosnot, C. 2005. *Constructivism: Theory, perspectives, and practice* (2nd ed.). New York and London: Teachers College Press.
- Hansman, C. 2001. Context-based adult learning. In *The New Update on Adult Learning Theory*. Ed. S. Merriam, 43–52. San Francisco: Jossey-Bass.
- Hein, G. 1998. *Learning in the museum*. London: Routledge.
- Hooper-Greenhill, E. (Ed.). 1994. *The educational role of the museum*. London: Routledge.
- . 2000. *Museums and the interpretation of visual culture*. London: Routledge.
- Jansen-Verbeke, M., and J. van Rekom. 1996. Scanning museum visitors. *Annals of Tourism Research* 23 (2): 364–375.
- Jeffery-Clay, K. 1998. Constructivism in museums: How museums create meaningful learning environments. *Journal of Museum Education* 23: 3–7.

- Kelly, L. 2006. Museums as sources of information and learning: The decision-making process. *Open Museum Journal* 8.
- . 2007. *Visitors and learners: Adult museum visitors' learning identities*. PhD, University of Technology, Sydney.
- Lave, J., and E. Wenger. 1991. *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Leinhardt, G., K. Crowley and K. Knutson (Eds). 2002. *Learning conversations in museums*. Mahwah: Lawrence Erlbaum Associates.
- Leinhardt, G., K. Crowley and K. Knutson (2003). Museum learning collaborative redux. *Journal of Museum Education* 28 (1): 23–31.
- Leinhardt, G., and K. Knutson. 2004. *Listening in on museum conversations*. Walnut Creek: Altamira Press.
- McLean, K. 2003. In the cave, around the campfire, and at the well. Paper presented at the ICOM-CECA Annual Conference, Oaxaca, November 2–6.
- Matusov, E. and B. Rogoff. 1995. Evidence of development from people's participation in communities of learners. In *Public Institutions for Personal Learning*. Ed. J. Falk and L. Dierking, 97–104. Washington: American Association of Museums.
- Mitchell, N. 1999. *The buying decision process of families visiting the Australian Museum—A focus on problem recognition and information search* (unpublished report). Sydney: Australian Museum.
- Ogbu, J. 1995. The influence of culture on learning and behaviour. In *Public Institutions for Personal Learning*. Ed. J. Falk and L. Dierking, 79–95. Washington: American Association of Museums.
- Paris, S. 1997. Situated motivation and informal learning. *Journal of Museum Education* 22: 22–27.
- . (Ed.). 2002. *Perspectives on object-centered learning in museums*. Mahwah: Lawrence Erlbaum Associates.
- Prentice, R. 1998. Recollections of museum visits: A case study of remembered cultural attraction visiting on the Isle of Man. *Museum Management and Curatorship* 17 (1): 41–64.
- Rennie, L., and D. Johnston. 2004. The nature of learning and its implications for research on learning from museums. *Science Education* 88 (Supplement 1): S4–S16.
- Roberts, L. 1997. *From knowledge to narrative: Educators and the changing museum*. Washington: Smithsonian Institution Press.
- Roschelle, J. 1995. Learning in interactive environments: Prior knowledge and new experience. In *Public Institutions for Personal Learning*. Ed. J. Falk and L. Dierking, 37–51. Washington: American Association of Museums.

- Rounds, J. 2002. Storytelling in science exhibits. *Exhibitionist* 21 (2): 40–43.
- Schauble, L., G. Leinhardt and L. Martin, L. 1997. A framework for organising a cumulative research agenda in informal learning contexts. *Journal of Museum Education* 22: 3–8.
- Sedzielarz, M. 2003. Watching the chaperones: An ethnographic study of adult-child interactions in school field trips. *Journal of Museum Education* 28 (2): 20–24.
- Silverman, L. 1995. Visitor meaning making in museums for a new age. *Curator* 38 (3): 161–169.
- Vygotsky, L. 1978. *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.
- Weil, S. 1997. The museum and the public. *Curator* 16 (3): 257–271.
- . 1999. From being *about* something to being *for* somebody: The ongoing transformation of the American museum. *Daedalus* 128 (3): 229–258.
- . 2002. *Making museums matter*. Washington: Smithsonian Institution Press.
- Wenger, E. 1998. *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.

Notes

¹ Both the front-end and summative evaluations were conducted by the author in conjunction with Robyn Hayes, from Vivid Qualitative Research, Sydney.