

**THE ESSENTIAL ARCHITECTURE OF THE LEARNING EXPERIENCE  
IN HISTORY MUSEUMS  
A PHENOMENOLOGICAL STUDY**

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**THIS THESIS IS PRESENTED FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY  
THE UNIVERSITY OF TECHNOLOGY, SYDNEY**

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## CERTIFICATE OF AUTHORSHIP/ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged in the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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## **ACKNOWLEDGEMENTS**

This study could neither have begun nor been completed without the tireless assistance of my Head Supervisor, Dr. Bruce Hayllar whose knowledge, generosity, patience and wisdom over many years saw no bounds. To him I am forever grateful.

I am also most appreciative for the extensive experience and enthusiastic guidance of my other supervisor, Dr. Christine Burton, whose involvement in this study was invaluable. My considerable appreciation also goes to my editor, Dr. Elizabeth White.

Similarly supportive has been my wife, Laura, whose unceasing forbearance has been there for me all through the journey and our son, Campbell, whose interest in the work has grown, with him, over the years.

Finally I would like to thank all of the authors appearing in the bibliography upon whose work this study has so very much relied.

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## ABSTRACT

This study undertakes an in-depth investigation of the learning experience of selected visitors to three Australian museums. The research questions guiding the study were:

*Central Research Question:* What is the essence of the learning experience in history museums?

*Sub-questions:*

1. What is the essential structure of the museum learning experience?
2. What are the constituent elements of that essential structure?
3. How is meaning created by the visitor during the museum learning experience?
4. What are the key implications for the management and marketing of museums arising from an understanding of the above?

Having established from the literature the importance of learning to the museum experience and emotion to such learning, the methodology assumes an emergent construction progressing through three separate but interrelated qualitative phases. The first two assume a broadly ethnographic approach while the third, in an attempt to achieve a deeper understanding, adopts a hermeneutic phenomenological approach referring in particular to the work of Husserl, Heidegger and Van Manen.

The research incorporates a range of investigative methods including preparation of Personal Meaning Maps (Falk, 2002); audio recording of participant visit conversations; and in-depth interviews during a 'return to the experience' by individual participants and the researcher immediately subsequent to the visit.

The first two stages identifies learning to have occurred by way of a number of principal concepts around which the data is grouped as well as a series of

themes by which meaning is evidenced. Emotion is seen to be an influencing factor with respect to both concepts and meaning.

The third stage identified the essence of the learning experience as a relationship between the visitor's emergent interpretation of exhibits and their feelings of interest. From this the essential structure is identified as the interrelationship between such emergent interpretation in narrative form, interest and the self. The emergent narrative is thereafter deconstructed to its elemental processes of remembering, thinking and imagining, linked together by way of constructivist narratology. The identified themes, providing meaning to the experience, are then incorporated into the model. The learning experience is then seen as the on-going dialectic between the constructivist processes of the emergent narrative and the de-constructive processes of meaning-making.

The conceptual model provides new insight into the museum learning experience by providing the interrelationship between the fundamental elements that constitute the essence of the phenomenon and upon which it might be argued other theories of museum learning are built.



## **CHAPTER 1 : INTRODUCING THE STUDY**

### **Introduction to the Topic**

One of my abiding childhood memories is being taken by my mother and sister to visit the Auckland Museum every school holiday. It created in me not only a love of that venerable institution but also an interest in old and ancient objects, each with their own particular story, that fired the imagination of a young boy. For me, museums and their objects still hold that same fascination.

To my mind the attraction of historical museums has always been a strong one. Postman (1992) suggested that they represent an attempt to answer the fundamental question of what it means to be human. I believe that objects act as a link to this larger context of time and space, between personal experiences and that of the broader human condition. In the words of Crane (2000, p.12) 'we go to museums to learn about ourselves, to witness what has been identified as significant art or history or science, and to come away with a stronger sense of ourselves as implicated in a vast web of tradition and knowledge.'

Certainly preserving objects from the past has been deemed to be a worthy pursuit even in historical times. During the sixth century BC the temple school in the Sumerian city of Ur protected items that pre-dated the temple by as much as sixteen hundred years (Talboys 2005). The word 'museum' arises from ancient Greece where the mouseion was the term given to the sacred place that housed scriptures dedicated to the muses and where artists and scholars assembled for discussion and debate. In this sense they were as much centres for study and the creative exchange of knowledge as places for preservation and storage (Kossak 2012).

Since such times the relatively slow pace of technological change ensured a social continuity that informed the individual as to their sense of self, place and community. But such is not the case in the present world where the rate of change is both rapid and accelerating. Despite such change, or perhaps because of it, museums continue to play a vital role in helping societies make

sense of what has happened in the past, continues today, and will affect tomorrow (Hooper-Greenhill 2004).

With their collections of material objects, historical museums are 'the most prominent of institutions involved in this exploration of material culture and they are specifically designed for this purpose' (Talboys 2005, p.7). As learning spaces, museums also provide the context in which meaning can be shared between individuals. They are the places where the feeling of connectedness is reaffirmed and strengthened, where the experiences of one individual can connect with those of another and where personal growth can be both facilitated and encouraged (Csikszentmihalyi & Hermanson 2004).

Worts (1990, p.9) captures this sentiment when he notes that:

Museums are essentially charged with the responsibility of facilitating a process of human growth, be it intellectual, emotional, spiritual or social, that can and does occur when people interact in a 'meaningful' way with objects that are at once both unique and highly symbolic. It is through this growth that an individual can develop a sense of his/her relationship to a set of collective values, beliefs and behaviors.

The pursuance of 'meaning' that museums allow is further commented upon in rather soaring terms by Silverman (2002, p.7) when she declares:

Encounters with artifacts can and do yield moments of great meaning. From religious symbols, to childhood possessions, to visionary art, our material world provides talismans of our relationships, our potentials, our interconnectivity, our divineness.

Despite apparent agreement on the purpose and benefit of history museums, the manner by which visitors achieve such meaningful encounters seems to be the subject of less academic and professional certainty. Indeed, Falk and Dierking (2000, p.178) state that museums need to 'figure out how to deliver even better, even more successful experiences.' Goulding (2000) claims that museum researchers, despite being faced with pressure to attract wider audiences in a market of increasingly competitive and entertaining leisure alternatives, often fail to understand the true nature of the visitation experience.

In this regard it emerged from the literature that the most significant issue with respect to meaningfulness was that of learning. As stated by Falk and Dierking

(2000, p.177) 'Museums are free-choice learning settings in which learning is an outcome that is often expected by both people that visit them and the people that design them.'

Although the literature discusses a number of factors influencing the general nature of the learning experience there appeared, however, to be a gap in such literature regarding a consideration of its fundamental nature. Without this it seemed that the experience, as the 'core methodology of (determining) adult learning' (Knowles 1990, p.31), could not be said to be fully understood. It is the desire for such understanding that was the catalyst for this study.

### **Approaching the Problem**

Having identified this apparent absence, the issue becomes one of determining how an analysis of the learning experience should be undertaken. Here the metaphor of the 'black box' might be apposite (Mannel & Kleiber 1997). As such, it can generally be said that visitors enter the museum with attendant knowledge and experience, expectations and interests, motivations and attitudes (Falk and Dierking 2013). They decide on a particular route, become involved in selecting, viewing and often discussing certain exhibits, and emerge again hopefully having learnt something from the experience. Predictably, museum researchers attempt to determine the exhibits studied and the outcomes learned rather than subjecting the experience itself to rigorous examination (Roschelle 1995; Hein 1998). Using a variety of techniques this study attempts to 'open the lid and unpack the black box' in order to better understand that experience from the perspective of the visitor.

### **Statement of Purpose**

The principal purpose of this inquiry is to understand the learning experience of selected visitors to three Australian museums. In so doing it is hoped that the essential nature of the learning experience might be revealed in a manner not hitherto pursued in other research studies.

Consequently the study has four principal research objectives:

- To examine the nature of the museum learning experience;
- To identify the essential structure(s) of that experience;
- To explore the relationships between the constituent elements of that structure; and
- To determine how visitor meaning is achieved within such a structure.

### **Research Questions**

In order to address the objectives a single central research question and four sub-questions were developed (Creswell 1998). The form of these questions reflects the emerging nature of the inquiry and the decision to adopt a phenomenological approach in order to better understand how learning is taking place.

#### *Central Research Question*

What is the essence of the learning experience in history museums?

#### *Sub-questions*

1. What is the essential structure of the museum learning experience?
2. What are the constituent elements of that essential structure?
3. How is meaning created by the visitor during the museum learning experience?
4. What are the key implications for the management and marketing of museums arising from an understanding of the above?

### **Development and Organisation of the Thesis**

Whilst the final structure of the study has an inherent logic and organisational integrity, the overall research design was an emergent construction. Guided by the research objectives, the ideas that unfolded were continually challenged and the approach modified accordingly. The final document is the culmination of that process.

The empirical work began with a Pilot Study, utilizing a broadly ethnographic form of qualitative methodology to provide a preliminary understanding of the

learning experience while assessing the effectiveness of the research techniques employed. The design was then revised for the first stage of the Main Study that used a similar methodological approach albeit with altered techniques in order to attain a deeper understanding of the learning process.

Whilst the initial findings were interesting and in many ways important in understanding the experience, it was considered that the essential structure had not yet been fully comprehended. Following further investigation and consideration of alternative methods the project moved toward phenomenology as the means of examining that essential nature. The second stage of the Main Study reflects this fundamental shift in approach and method.

Throughout the progress of the study the broad topics of learning, emotion and museum studies were examined, utilising what was considered to be the most appropriate lines of enquiry. As each of these fields is extensive, decisions had to be made regarding the parameters of such enquiry and these are reflected in the text.

The thesis is organised into ten chapters that reflect the process outlined above.

Having identified the research problem in chapter one, chapter two provides an initial understanding of the museum experience, in particular identifying the importance of learning.

Chapter three provides a discourse on learning in general and museum learning in particular.

Chapter four explores the literature on emotion, both historic and contemporary.

Chapter five discusses the methodological approach taken and provides an overview of the research techniques used.

Chapter six details the approach and findings from the Pilot Study and the first stage of the Main Study. The chapter concludes with a discussion on the

limitations of the methods used and the move to a more phenomenologically based investigation.

Chapter seven orientates the reader to the philosophical structures of phenomenology, in particular discussing the contributions of Edmund Husserl and Martin Heidegger.

Chapter eight reports on the second stage of the Main Study.

Chapter nine explores the nature of the experience from a phenomenological perspective.

Chapter ten draws together the findings of the study and the implications for practice. It continues with a discussion as to how the findings of the study complement, supplement or conflict with existing discourses. It concludes with a brief statement on the boundaries of the study and suggestions for further research.

## **CHAPTER 2 : EXPERIENCING MUSEUMS**

### **Introduction**

This chapter provides a theoretical and practical context for the study. It begins by providing some definitional clarifications and then focuses on the nature of learning within museum settings. It concludes with a rationale for further investigation into the nature of learning in general and museum learning in particular.

### **Definitions and Attributes**

While in 1978 the American Association of Museums saw museums within a context of object ownership, preservation and exhibition, a subsequent definition by the International Council of Museums (ICOM) considered an enhanced degree of visitor-orientation when they redefined a museum as a:

non-profit-making permanent institution in the service of society and its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for the purpose of study, education and enjoyment, material evidence of people and their environment (ICOM quoted in Talboys 2005, p.7).

Such a definition is, however, limited as it fails to explicitly acknowledge the important role that museums play in the dissemination of non-material culture (that is, shared values, ideologies, traditions, rituals, beliefs and attitudes) that gives meaning and cultural context to their material objects. As Graham (2007, p.213) notes:

Museum people are mistaken when they believe museums collect 'things'. They collect memories, meanings, emotions and experiences. Without the 'things' the collections would not exist, but without the memories, meanings, emotions and experiences, museums would not exist.

As such, museums tap into the experiences of the past and through such experiences seek to inform. This makes the museum experience quintessentially educational and requires the institution to provide visitors with 'the opportunity to see, touch, hear and have sensual, emotional and intellectual interactions with and experiences of what it contains...that can lead to revelation and deeper understanding' (Talboys 2005, p.8).

However, Morris (2012) alerts the reader to the duality and fluidity of museums by referring to the conflict between their concrete characteristics, inherent in their buildings and objects, and their conceptual and imaginative qualities:

For all that they are full of solid things, museums are also slippery, imaginative, conceptual places with an innate pathos and poignancy that comes from the fact that their subject is time and the different journeys that things and people make through time...So fluid is the concept of a museum that you would think that it would slip away through one's fingers - and yet it doesn't because it also has a strong and concrete existence (p.9-10).

### **Museums as Settings for Leisure and Learning**

The museum visit can generally be perceived as a leisure pursuit that emerged during the European industrial revolution as a 'worthy' activity that sought to educate, socialise and even inspire the general populace. In the rather wonderful words of John Cotton Dana, founder of the prestigious Newark Museum, in 1909:

A good museum attracts, entertains, arouses curiosity, leads to questioning and thus promotes learning. It is an educational institution that is set up and kept in motion so that it may help the members of the community to become happier, wiser and more effective human beings. (John Cotton Dana quoted in Lipton 1979, p.11-12)

In this sense the words of Dana were reflected in the subsequent research performed by Hood (1981) that indicated there to be six major criteria which individuals use to define leisure experiences, namely social interactions; being worthwhile; feeling comfortable; the challenge of new experiences; the opportunity to learn; and active participation. In her museum visitor segmentation she concluded that those demonstrating lower rates of visitation generally considered such a leisure activity as relaxation while those of higher rates were more likely to view it as active, intense and learning-orientated.

Supplementing such definitional criteria, Haggard and Williams (1991) suggested that leisure activities, such as museum visitation, provide potent opportunities for participation in self-affirmation (that is, who we believe ourselves to be) due to their inherent freedom of choice. It is the symbolic meaning that leisure activities provide that enable individuals to confirm or assume specific identity images by which they can understand themselves as



well as be more accurately understood by others (Schlenker 1984). 'In essence, we affirm who we are through the active selection and participation in leisure activities' (Falk 2009, p.44).

Leisure provides the opportunity for such self-definition because it enables meaning and satisfaction in 'process' rather than 'ends'. That is, how things are done becomes more important than just outcomes. For example, a family visit to a museum can represent an expression of good parenting rather than just a perfunctory study in historical objects (Falk 2009). In short, leisure provides one with the low-risk context to reinforce existing self-images or create new ones to the satisfaction of ourselves and others.

In so doing the museum visit appears to offer what Mannell and Kleiber (1997) consider to be the defining characteristics of leisure pursuits, namely a sense of freedom of choice to participate (or not as the case may be), participation as an enjoyable end in itself rather than as a means to another end, and a state of relaxation and low anxiety giving rise to positive emotions such as pleasure, excitement, intrigue and fascination.

History museums are included by researchers (Anderson 1995; Falk 2000; Falk & Dierking 1995; Hooper-Greenhill 1999) in the generic category of *educational leisure settings* which share most, if not all, of the following characteristics:

- Direct experience with real objects, people or places,
- Learning is voluntary,
- Learning is stimulated by the needs and interests of the learner,
- Learning is often socially mediated,
- Visitors come alone or in small groups of mixed sexes, ages and subject expertise, and
- Visitors have diverse learning styles and prior learning experiences.

As educational leisure settings, Leinhardt and Crowley (1998, p.2) view museums as among the preeminent institutions for learning:

They are places in which our society gathers and preserves visible records of social, scientific and artistic accomplishments; in which it supports scholarship that deepens and extends knowledge; and to which people of

all ages turn to extend their understanding of history and society; to expand their cultural horizons, and to explore scientific phenomena.

Similarly, Meadows (1997) and Paris (1997a) contend that it is museums' potential to provide experiences involving exploring and examining, making choices, creating connections and developing personal understanding of three-dimensional objects that fundamentally delineate them from other learning institutions such as schools, libraries, cinema and the internet.

The importance of such materiality of objects and its influence on the museum visitor was further endorsed by Dudley (2012) who contends that:

(P)art at least of the engagement with the object will be determined by its material characteristics – (sense perception) *reactions would not be as they are (whatever they may be), if the object were not what it is* (p. 7)...it is the engagement between object and subject, in their very confluence, that sensory responses, emotions and ideas are generated. It is also in this engagement, I suggest, that subjects and objects come fully into being at all. The process of encounter bridges the two, causing them, at the instant of perception, to exist only in relation to each other. (p.8, italics in text)

Such reflections appear to posit the museum experience as somewhat complex, involving different dimensions including the physical, the intellectual, the social and the emotional (Pekarik, Doering & Karns 1999). It is this complexity that makes the museum visit particularly subjective as each individual determines what is meaningful for them. Indeed, the centrality of meaning to the visitor experience is such that Falk and Dierking (2013, p.300) were moved to comment :

People who come to museums do so, to a greater or lesser extent and often subconsciously, to engage in meaning-making, the fundamental core of learning and being human – to wonder, consider, question, and/or to discover something about themselves, their companions, and their place in the cosmos.

It is this desire to construct personal meaning that can provide curators and designers with formidable challenges as they attempt to 'set (visitors) up to receive a certain experience' (Appelbaum 1996, p.15).

## Motivations for Visiting Museums

Research into the motivation for museum visitation indicates that the reasons are multifaceted. Moussouri (1997) clusters the reasons into six major categories:

- *education* (the aesthetic, informational, or cultural content);
- *entertainment* (leisure related reasons);
- *social event* (day out with family and/or friends);
- *life cycle* (repeated activity performed at certain phases of one's life);
- *place* (cluster of leisure/recreational/cultural destinations); and
- *practical issues* (external factors such as cost of entry, weather, travel time, parking).

A later study by Falk, Moussouri and Coulson (1998) determined the core reasons to be *education* and *entertainment*. However, they contend that these are not either/or motivations but rather a combination of both such that visitors are seeking a *learning-oriented entertainment experience*. Such an experience revolves around personal interest, attempts to find personal meaning, brings personal experiences, emotions and values to the fore, and mediates all this by way of their own sociocultural background (Falk & Dierking 2000).

With respect to the importance of interest, Falk and Dierking (2013) contend it to be a 'profound truism that personal interest plays a fundamental role in shaping not only why people visit museums in general, and museums on particular topics, but also what people do and take away from these experiences' (p.92). While acknowledging interest to be an under-studied and arguably under-rated aspect of the museum experience, they suggest it to be sufficiently fundamental that 'visitors generally select whether or not to visit museums based on their prior interest in a museum's subject matter and/or the type of experience they seek...and then utilize their specific interests, along with their entering identity-related motivations, as lenses to decide what aspects of the museum to focus on' (p.93).

As this tends to suggest, visitor motivations do not simply materialise at the museum door. Rather, according to Balling, Falk and Aronson (1980); Falk and

Dierking (2013); and Moussouri (1997), they have as their genesis pre-visit agendas that incorporate each individual's set of interests, desires, needs and expectations and thereby 'create a basic trajectory for the visit, as well as the lens through which the visitor experience itself is framed' (Falk & Dierking 2013, p.96). As such, agendas influence in-museum direction of behaviour (choice of actions), the energisation of behaviour (effort expended), and the persistence of behaviour (maintenance over time) (Ellenbogen 2002; Moussouri, 1997; Worts 1993a, 1993b).

By virtue of such agendas Falk and Dierking (2000) suggest that visitors consciously and unconsciously seek ways to connect the museum with whom they perceive themselves to be. Such identity-related motivations have more recently been the subject of consideration (Falk 2009; Falk & Dierking 2013; Falk, Heimlich & Bronnenkant 2008). Contrary to theoretical expectation that the number of such motivations could be numerous, Falk (2009) determined that the reasons people give for visiting museums and their post-visit descriptions of the experience tended to cluster around only five common categories, namely:

*Explorers*: Curiosity-driven visitors seeking and expecting to find exhibits capable of gaining attention and inducing personal learning.

*Facilitators*: Socially-motivated visitors primarily interested in enabling the learning and experience of others in their social group.

*Professionals/Hobbyists*: Those motivated by particular content-related objectives based on a perceived relationship between the museum content and a personal interest or passion.

*Experience seekers*: Individuals motivated by visiting what they perceive to be an important destination.

*Rechargers*: Those principally desiring a contemplative, restorative and even spiritual experience.

*Respectful Pilgrims*: Visitors motivated by a sense of duty to honour the

memory of those represented in the museum.

*Affinity Seekers*: Those seeking a sense of personal heritage and identity.

By way of such motivations Falk and Dierking (2013) contend that visitors make sense of their museum experience before, during and after the visit so that 'more than any other variable, entering identity-related visit motivations were predictive of what remained vivid in memory, as opposed to what did not' (p.229).

Importantly, as distinct from demographic and psychographic measures, identity-related motivations were deemed not to be permanently representative but rather relevant to the circumstances of individual visitors on a particular day. Further, the researchers suggest that such motivations not only influence why people visit museums but also create an 'ideal' experience which is later compared with the real experience in the individual's overall assessment of the visit. Such findings provide valuable texturing particularly of the Personal Context posited in the Contextual Model of Learning (Falk & Dierking 2000) discussed below. Further, in his diagrammatical representation of the museum visitor experience, Falk (2009, p.161) overlays the identity-related motivations and perceptions of museum affordances onto the personal, physical and socio-cultural contexts of the Contextual Model in an interesting and illuminating portrayal of the dialectic between the visitor and the museum.

### **An Overview of the Museum Experience**

Pekarik, Doering and Karns (1999) contend that the literature lacks a complete theoretical framework and body of empirical data on the nature of visitor experiences. However, there has been significant on-going research into its complex nature.

Annis (1974) conceives of three categories of visitor engagement which he terms the *dream space*, the *pragmatic space* and the *cognitive space*. The first is determined as a field of interaction between suggesting/affecting objects and the viewer's sub-rational consciousness. The second relates to the field of activity in which physical presence rather than objects have meaning, while the

third defines the field that corresponds to rational thought and the designed order of museums.

Such a tripartite division of experience was echoed by Graburn (1977) who spoke to the human needs that museums can fulfil. These he identified as *reverential experience* (similar in nature to Annis's dream space and related to an experience with something higher, more sacred and out of the ordinary), *associational space* (equivalent to Annis's pragmatic space and related to the social occasion of the visit) and *educational space* (Annis's cognitive space and related to the ability to learn something, albeit not limited to just rational thought).

The innovative work of Falk and Dierking (1992) also used a tripartite framework. By way of their *Interactive Experience Model* they posited that visitor experiences can be examined by way of three contexts, the *Personal Context*, the *Social Context* and the *Physical Context* with the 'visitor's experience thought of as a continually shifting interaction' between all three (p.6). The first context is visitor focused in that it incorporates prior knowledge, experiences, interests, attitudes, motivations, and concerns regarding museum content and design. These factors help mould both the agenda noted above and the visitation experience itself. The second incorporates with whom the visitor is touring or comes into contact with during the course of the visit. The third refers to the architecture of the building as well as its ambience, layout, exhibits, smells, sounds, sights and facilities. As a consequence, every visitor comes to the museum with their personal and social circumstances as well as their expectations. Once there, they are affected differently by the physical nature of the museum and these influencing factors. As a consequence they make different choices regarding what to see and how to interact with both the spaces and the exhibits as well as those people that accompany them or with whom they interact. The result is individual experiences that are quite different. Indeed the 'reality' of the museum experience becomes highly subjective as each visitor continuously constructs and appropriates their own experiential reality.

The notion of a comprehensive approach has also been given prominence by Silverman (1995) who, in contending that the visitor experience can only be understood within the wider context of personal 'meaning-making', suggests a number of experience descriptors. These include *reminiscence* (a response eliciting personal memories of past experiences and associations), *reflection* (consideration of one's own feelings and experiences in the light of new museum information), *imagination* (building on current knowledge and past experiences to consider that which does not yet exist) and *wonder* (similar in nature to Graburn's (1977) reverential experience noted above). However, Silverman (1995) goes beyond these to suggest that museums are able to address two broad and pervasive human needs, being the need for *individuality* (including *uniqueness* and *autonomy*) and the need for *community* (including *affiliation* and *interdependence*) that together provide relevance to the multidimensional, multifaceted experience of being human.

Roberts (1997) posited a taxonomy of factors influencing the museum experience that included *intellectual curiosity* (pursuing that which appears interesting), *social interaction* (gaining meaning from experiences with others as much as with exhibits), *reminiscence* (remembering, retelling and/or re-experiencing significant moments and people), *fantasy* (to be sparked by exhibits that take one into the world of the imagination), *personal involvement* (introspectively making a human connection or exploring self-identity) and *restoration* (relaxing and recharging). In so doing he provided the conceptual platform for a consideration of reflection and imagination by McLaughlin (1999) who reinforced the importance of *reflection* with his inclusion of *introspective* experiences into the taxonomy.

Pekarik, Doering and Karns (1999) were even more prescriptive in their research on visitor experiences that were considered to be satisfying. A list of fourteen parameters were categorised into four clusters which included *object experiences* outside the visitor (for example, objects that are rare, real and beautiful), *cognitive experiences* being those where the interpretive and intellectual aspects of the experience are considered to be more satisfying (for example, gaining information, being personally enriched), *introspective*

*experiences* where the visitor turns inward to feelings and private contemplation constructed around a museum object (for example, reflecting on a meaning, a personal memory, a spiritual connection, a feeling of connectedness), and finally *social experiences* including interaction with family, friends or staff (for example, parents seeing their children learn, sharing time with valuable others).

Whilst researchers differ in their specific findings, there appears a commonality regarding the placement of the visitor at the centre of the museum construct. As noted by Falk and Dierking (2013, p.105) 'Many museum professionals fail to fully appreciate that visitors actively create and make meaning of their own museum experiences. Too many exhibitions are designed with the assumption that the museum, rather than the visitor, controls the experience.'

### **Museums as Places for Learning**

When considering the nature of museum learning there appear two principal issues to consider, one related to the autonomy of the learning process and the other to the nature of the communication that such a process assumes.

#### ***The Learning Process in Museums***

As discussed more fully in chapter three, the concept of *self-directed learning*, or what has also been termed *free-choice learning*, is described by Falk and Dierking (2000, p.13) as follows:

Free-choice learning tends to be non-linear, is personally motivated, and involves considerable choice on the part of the learner as to what to learn, as well as where and when to participate in learning. This type of free choice learning is not restricted to museums, but it is in museums that we currently best understand it.

Falk (2005, p.273) describes it further as:

a relative, rather than an absolute, construct. The operative issue is *perceived choice and control by the learner*. To qualify as free choice learning the learner must perceive that there are reasonable and desirable learning choices (as defined by the learner) available and that s/he possesses the freedom to select (or not to select) from amongst those choices. (italics and parenthesis in text)



As such, Pratt (1993) conceives it to result in knowledge that is actively constructed through interactive processes of interpretation, integration, and transformation according to the individual's desires, interests, motivation, choice and control. Apart from institutional attempts at crowd control, it involves visitors determining their own route, pace and sequence of exhibits without an overt sense of external direction (Hein 1995). Importantly, it facilitates learning through social interaction and obviates any sense of compulsory outcomes as present in more formal learning environments.

By conceiving of learning in this way it is pertinent to consider how it approaches an understanding of what the learner is seeking to gain from the experience. In this regard, it appears that visitors are interested not so much in 'learning something' as engaging in an 'experience of learning', determined as one that is inherently enriching in its own right regardless of learning outcomes. Referring to such *learning for fun*, Packer and Ballantyne (2004) posit particular criteria including a sense of exploration, mental stimulation and excitement that represent the motivational construct in free-choice learning environments. In addition, such learning should offer enjoyment, appeal to the multi-sensory nature of the experience and appear almost effortless.

Csikszentmihalyi (1975) utilises the term *autotelic* to describe those experiences where such personal rewards are generally intrinsic and the learning outcomes somewhat serendipitous. Indeed, as it might be argued that more information is generally available from a book or the internet in a given time than from an exhibit, the appeal of museum learning appears to very much reside in the experience itself (Pine & Gilmore 1999b; Rounds 2004). In other words, the process *is* the end.

While accepting the importance of self-directed learning within the museum context, Silverman (2002) remains unconvinced that the term is capable of properly encapsulating all of the important behaviour that can occur. In that regard, she raises the question as to whether reminiscence, socializing, relaxation or even spiritual connection can all appropriately be referred to as 'learning'. Instead she advocates the term *meaning-making* as one that better

represents the totality of the experience. Such a re-orientation of current museum attitudes is stated in her 1995 endorsement:

(P)roviding an approach to understanding visitor experiences, the paradigm (of meaning-making) illuminates the visitor's active role in creating meaning of a museum experience through the context he/she brings, influenced by the factors of self-identity, companions, and leisure motivations. As a result visitors find personal significance within museums in a range of patterned ways that reflect basic human needs, such as the need for individualism and the need for community (p.161).

Taking an interpretive perspective on meaning, Silverman (1995) contends that the way that meaning can be established in the museum setting includes the meaning intended by the curator, the (often different) interpretation assumed by the visitor, the individual's own reasons for taking meaning from an exhibit, and a deeper insight possibly of a 'meaning of life' nature. In so saying, the process of meaning-making is not so much unidirectional from curator intention to visitor understanding but rather 'negotiated' between the two as visitors attempt to make sense of exhibits as a result of their unique personality and experience.

Regarding Silverman's entreaty to acknowledge the primacy of meaning-making and memory as the 'core mechanism of meaning-making' (Silverman 1995, p.162), Falk and Dierking (2000) agree with the importance of memory as the system for the construction, deconstruction and reconstruction of learned experiences but argue that when any such change occurs, learning has in fact taken place. Such is the case even during the process of reminiscence. As a consequence, it is argued that to understand meaning-making in museums requires an understanding of learning. In this regard Paris (1997a, 1997b) and Pine and Gilmore (1999a, 1999b) state that museums are in the business of inducing experiences that encourage 'meaningful learning' by engaging visitors through their pre-existing experience, knowledge and interests which enables meaning to be made through the mechanism of self-directed learning.

But what, one might ask, is the nature of such learning, whether it be self-directed or otherwise? How should it be described and what cognitive and affective elements might fall within its purview?

In an attempt to answer these questions Falk and Dierking (2000) formulated a constructivist-inspired framework that would holistically accommodate the inherent diversity and complexity of the museum experience, which they called the *Contextual Model of Learning*. Derived from their Interactive Experience Model (Falk & Dierking 1992) this model posits that museum learning, as a dialogue between the individual and the environment, can be viewed as an effort to make meaning within the parameters of the individual's overlapping *personal, sociocultural* and *physical* contexts.

Learning in the *Personal Context* is composed of cognitive (facts and concepts), affective (feelings, attitudes and emotions) and psychomotor (skills and behaviours) processes that operate inter-dependently through feedback loops using the brain's *limbic system* (refer chapter 3).

The *Sociocultural Context* defines both who we perceive ourselves to be and how we perceive the world in which we live - a world composed of shared experiences, beliefs, customs and values. The writers use an ecological approach to define culture as a form of social adaptation allowing, and indeed encouraging, survival. Within such a definition learning is 'situated' within the culture and acts as the means by which individuals receive, often through the use of story, observation and imitation, information and direction regarding required behaviour. In the same way that museums are purveyors of information, so too can they be viewed as agents of such socializing through the process of learning.

The *Physical Context* involves not only learning about the space itself but also the interrelationship between that space and the other two learning contexts. Of particular importance is the connection between high levels of spatial involvement, positive affect and enhanced learning. Indeed, so closely related are these three dimensions that it is suggested by the researchers that any one of them could be used as a predictor of the other two. In terms of utilization of the space they also found that, due to the self-directed nature of the experience, visitor progression does not necessarily occur in the way that curators may have planned or desired, potentially making the learning process fragmentary and unstructured.

To these three contexts the writers add a fourth dimension, that of *time* which seeks to address the need to consider a longer view in order to properly understand the learning experience. As visitors connect past experiences with new information and reconstruct their mental structures into new ways of understanding, they need time for reflection. Arguably, the cumulative and iterative nature of the process suggests that much of the learning can occur sometime later. This adds a further degree of complexity as it requires a consideration of learning being constructed not only as the individual moves through their personal and sociocultural world but also by way of earlier learning influencing later learning. In summary, learning is seen as the integration and interaction of the three contexts over time in order to make meaning and find connections.

The benefit of this model, according to Falk and Dierking (2000), is not that it is reductive but rather that it is descriptive in that it seeks not to reduce complexity but rather to embrace and organise it. As such, it is seen to display a fluidity which reflects the dynamism of the learning process, the impermanence of the learning product and a constructivist approach to the nature of learning. More particularly, experiences are combined into composite recollections that are more personally created interpretations than exact reproductions of events thereby allowing room for the influence of creativity, imagination and invention.

While the model is valuable in that it structures and organises many of the factors which are said to influence museum learning, the relative effectiveness of particular factors *within* each of its contexts to influence learning yet needs to be fully understood. Utilising the Personal Context, Pedretti (2007) determined four influencers on museum learning, namely: personalizing subject matter; evoking emotion; stimulating dialogue and debate; and promoting reflection. In the context of science centres, Falk and Storksdieck (2005) sought to determine how attitudinal, demographic and socio-cultural variables either individually or collectively affect visitor learning. Surprisingly, they found that while these factors were of some importance, no single factor was capable of adequately explaining learning outcomes across all visitors. It appeared to

depend on who the visitor was, what they knew, why they came, and what they actually saw and did. As such, they contend that researchers have to understand the uniqueness of each individual, their needs, interests, abilities, attitudes, values, beliefs, existing knowledge and history of experiences - the so-called holistic 'self' of James (1890/1950) that filters experiences for significance.

The above-mentioned factors, taken together with expectations for learning, are defined by Falk and Dierking (2000) as *motivation*, an influence on visitor learning that Csikszentmihalyi and Hermanson (1995) claim is much underrated. In free-choice learning situations (as against the likes of school rooms) such motivation is considered to be fundamental. The reason posited is that it determines *what* is learned (the choice of museum exhibits according to interests and prior experiences), *why* it is learned (based on personal or group motivations which affect the amount of time and effort invested to view exhibits), and *how* it is learned (based on learning styles, stage of development and social/cultural preferences) (Falk, Dierking & Foutz 2007). Motivation is discussed in more detail in the following chapter.

### ***Attention to Learning***

Museum designers and curators are generally cognizant that for visitors to be motivated to experience exhibits long enough to receive the intended message their attention must be attracted and retained through feelings of personal relevance (Celsi & Olsen 1988). Such concepts of attention, motivation and relevance are evident in the *cognitive psychology approach* of Field and Wagner (1973). Due to the non-captive nature of the museum setting where there are no external incentives for visitors to pay attention, the researchers contend that the interpretation must be *entertaining*, *interesting* and *understandable* in order that the information is relatively easy to process. Of principal importance to interest and understandability, they suggest, are the factors of *meaningfulness*, *relevance* and *conceptual organization*.

While meaningfulness refers to the connection between the visitor and the likes of their personal experience, thoughts, hopes, way of the life and social

position (Tilden 1957/1977), relevance refers to the degree of ego-involvement with, or experiential knowledge of, the particular topic. The third factor, that of conceptual organization, relates to the manner of presentation in a way that encourages the most rapid and efficient encoding of information. According to Ham (1983), should the message become dull, confusing or require undue effort to maintain attention, the individual will usually divert their attention to a potentially more gratifying stimulus. Such is particularly the case in free choice settings, where learner attention and curiosity can readily disengage from a presentation or move on to other activities that are deemed to be more interesting.

In short, more attention is paid to incoming information that is seen to have associative pertinency and ease of processing resulting in conceptual frameworks that are consistent, meaningful and relevant.

### ***The Importance of Learning***

Having established the principal issues, one might reasonably ask why such learning is so important in the context of museums. The reasons appear to be fourfold:

The first is that learning is the principal motivation for most people to visit museums (Falk, Moussouri & Coulson 1998). Indeed, Packer and Ballantyne (2002) found that visitor satisfaction was directly related to the experience of learning and engagement in motivated learning behaviour.

The second is that research has shown that museums are places where learning actually occurs (Falk & Dierking, 2000; Griffin 1998; Hopper-Greenhill 1994). As such, it is now widely accepted by both museum professionals and the public that museums are conceptually designed to make a major contribution to life-long education of the populous (Hein & Alexander 1998).

The third reason is that museums have an obligation to satisfy their own particular stakeholders variously including government agencies, corporate sponsors and the visiting public. As noted by Falk (2000), there is benefit to be

had by museums being very cognizant of the political, social, personal, economic and environmental impact that they are making on their communities.

The fourth reason that learning is important to museums is that it helps deflect accusations of 'dumbing down' the visitor experience. Under pressure to increase visitor numbers museums can be accused of relying too heavily on entertainment to the minimization, or even exclusion, of what is termed their 'real business', namely education and learning (Kimmelman 2001). Being aware of the nature and extent of the learning that they are providing helps diffuse such threats to their professionalism.

With these reasons in mind, Paris (1997a) argues that in order to facilitate meaningful learning, museums need to create environments that encourage exploration and enable meaning to be constructed through choice, challenge, control and collaboration. This, he suggests, leads to the ability of visitors to learn more about themselves and their experiences through reflection. And yet, as observed by Falk (2007, p.3), researchers have yet to fully 'enter the minds and bodies of visitors to these institutions' to discover what might be termed the *experience* of learning.

### **Museums as Places for Feeling**

According to Lord and Lord (2002, p.17) 'the criterion for success in a museum exhibition is whether it has achieved an affective experience, inducing a new attitude or interest, not whether visitors walk away from the museum having learned specific facts.' Echoing such sentiments Hooper-Greenhill (2004, p.21) states 'When we talk about learning, and particularly learning in museums, we are not talking about learning facts only. Learning includes facts, but also experiences and emotions.' Hein (2000, p.12) agrees and reminds the reader that:

Today's public does not discriminate sharply between what is known and what is felt. Experience is taken to be inherently emotional; indeed, the very idea of affectless experience is sometimes suggestive of a pathological cast of mind.....the persuasiveness of any given knowledge is as likely to flow from its emotional intensity as from the empirical or rational evidence in its favour.

A similar sentiment is voiced by Paris (1997b) when examining motivation to learn in museums, when he states that emotions are 'deeply motivating because they may rekindle memories, embellish previous knowledge, and extend understanding in idiosyncratic, personal ways' (p.23). In her 1994 address to the National Science Foundation Annapolis Conference Lynn Dierking contended that museums provide one of the principal arenas for examining the role that emotions play in free-choice learning. As such she posited that museum learning is strongly influenced by three factors, namely *emotion*, *motivation* and *interest*. Continuing she stated: 'most human learning is self-motivated, emotionally satisfying and very personally rewarding...in the museum context (education and enjoyment) combine to become the museum experience'. While the basis of the experience might be choice in what and when to learn, emotion appears to be vital to the decision-making process. She concluded: 'I hope that these findings will encourage researchers to take a more integrated approach to emotion and cognition (Falk, Dierking & Holland 1995, pp. 17-22).

### **Looking Backward and Forward**

The objective of this chapter was to begin the examination of the museum learning experience by first placing the reader in the appropriate theoretical and practical context. As such, it argues that museums represent educational leisure settings where the complex nature of the visitation experience is self-directed according to the needs and interests of the learner.

Thereafter the principal motivation for visiting museums was described in terms of a learning-oriented entertainment experience and in so doing introduced not only the primacy of learning in the visitation paradigm but also the importance of enjoyment and meaning-making. The nature of such learning was then discussed in terms of two opposing constructs of communication being that which originates from the institution itself versus that in which the 'reality' of the exhibition emerges from the interaction between object and visitor. The chapter concluded with a brief exposition of the part played by emotion in such interaction.



Having established the fundamental significance of learning to the museum experience, the following chapter explores the various philosophic and pedagogic discourses that underpin a more comprehensive understanding of its nature.

## **CHAPTER 3 : LITERATURE REVIEW PART ONE: A Discourse on Learning**

### **Introduction**

This chapter has as its principal objective an exploration of various theoretical discourses on learning in order to situate museum learning within that broader intellectual context.

The chapter is organised around four themes. The first seeks to locate learning within a number of opposing traditional and contemporary perspectives. From this basis the second theme attempts a resolution by examining recent neurological findings. The third examines learning in terms of other major influencers, namely motivation, identity and experience. The fourth and final theme returns the discussion to the museum context and draws the argument together.

### **A Definition of Learning**

Definitions of learning are diverse and often tend to reflect the perspective of the definer. In terms of his predilection for experiential learning, Kolb (1984, p.38) views it as 'the process whereby knowledge is created through the transformation of experience' while, in deference to informalism, Wilson (1999, p.257) considers it to be 'a relatively permanent change of knowledge, attitude or behaviour occurring as a result of formal education or training, or as a result of informal experiences'. Forrester and Jantzie (2002, p.8) detail it in rather more clinical terms by way of 'a process by which we receive and process data, encode such data as memories within the neural structures of our brain, and retrieve those memories for subsequent use'. However, the definition is nicely expanded beyond such procedural parameters by Falk and Dierking (2002) when they consider the free-choice leisure learning that occurs in museums as follows:

Our view of learning is very broad. It includes the typical notions of learning ideas, facts, and concepts, most often expressed in words...But our definition of learning also encompasses shifts in attitude, values, and beliefs... (and) aesthetic understanding... (and) sociocultural dimensions...and how to think critically and refine one's learning skills...This

is not the type of learning we were used to getting in school, but it is the type of learning we now expect to receive during our leisure time. (p.5)

Importantly, such consideration should also be cognizant of the declarations of Sotto (1994, p.75) when he states:

In addition, even when concerned with knowledge, learning does not always mean the acquisition of *new* facts; much of what we would recognise as learning involves the use of what we already know, or half-know, in new combinations or relationships or in new situations. Seeing things in new relationships gives old facts new meanings. (*italics in text*)

The association between learning and meaning is further referenced by Hooper-Greenhill (2007, p.35) when she states 'Things are only learnt when put into a context of meaning...The brain never merely absorbs new information, it processes it to make it personally meaningful...Because people are all different, each person will process knowledge and produce meaning in a different way.'

As such, learning is deemed to be fundamental to the human condition:

Real learning gets to the heart of what it means to be human. Through learning we re-create ourselves. Through learning we become able to do something we were never able to do. Through learning we re-perceive the world and our relationship to it. Through learning we extend our capacity to create, to be part of the general process of life. There is within each of us a deep hunger for this type of learning (Senge 1992, p.14).

Despite the diversity of definitions, Rennie and Johnston (2004) propose three principal characteristics that successfully distil the essential attributes of most theoretical perspectives. First, learning arises from the experiences of the individual, be they cognitive, emotive, behavioural, social or cultural that act on past learning to re-form it into new knowledge in a very personal way. Second, learning is contextual. In the museum environment it is formed by that which is personal in terms of past experiences, attitudes, personality and cultural background, social in terms of the interaction with accompanying visitors, and physical in terms of the external and internal architecture of the museum. Third, learning requires time for reflection as new experiences are integrated with old ones in order to gain new ways of understanding, thinking, feeling and acting.

As a result of these characteristics, learning can be differentiated from memory in that it represents an evolving *process* of change that is cumulative and iterative over time rather than the *product* of that change which is represented by the encoding, storage and retrieval of memory (Anderson 2000).

### **Opposing Perspectives**

Theories of learning have a history dating back to ancient Greece with the term 'epistemology' derived from *episteme* meaning knowledge and *logos* meaning theory - together a theory of knowledge. In those times and thereafter the topic has provided a fertile ground for the development of opposing perspectives, a brief summary of some of the major ones appearing below.

#### ***Theoretical versus Experiential***

Epistemology in the time of Socrates (469 - 399 BC) and Plato (423 - 347 BC) revolved around questions of truth. While the Sophists sought to impart knowledge through the recitation of formalised opinions, these two philosophers believed the objective of education should be a better understanding of certain absolute realities, or truths, through theoretical consideration in order that the individual may better orientate life in their direction.

This view was opposed by Aristotle (384 - 322 BC) who used his studies in biology to suggest that, rather than being subject to absolute reality, the mind is constantly changing practically through both sensory experiences and theoretically through cognitive processing (Bowen & Hobson 1987). Aristotle considered experience to be of primary importance in the gaining of knowledge, but as individuals cannot experience everything, he suggested that they generalise from their existing knowledge to the novel experience (Bowen & Hobson 1974).

The theoretical-experiential debate begun by Aristotle was continued some two thousand years later between the Rationalists and the Empiricists. While the former, including Descartes (1596-1650), argued that knowledge is gained through the deductive processes of reason, logic and theory, the latter ventured

that experience was the only means of gaining understanding of the world without becoming the victim of intellectual folly.

The debate was seen to be resolved by Immanuel Kant (1724 - 1804) who argued for a form of combined model whereby knowledge was gained through a synthesis of both theory and experience. As such, the human mind is not only an active originator of experience but also places it within a structure that, because all human minds are alike, is shared by all others (Crosby 1988). In this way the mind is not a 'tabula rasa' but rather the means by which incoming information is recognised according to prior experience. As a result, knowledge becomes that reality which the individual discerns through their own accumulated experience.

The value of experience was further commented upon by John Dewey (1859 - 1952) who not only accepted the ordering mind of Kant but propounded the argument that emotion should complement cognition in the understanding of experience as the fundamental basis of all learning. Moreover he considered that such experience is not simply an event that happens, a passive observation, but rather an active engagement with the environment, with meaning (Dewey 1925/1958). As such, he saw educational theory as two opposing concepts, one being that education is developed from within through experience and the other from without being transmitted information using traditional education methods. In so saying, he set the philosophical foundations for experiential learning that are discussed later in this chapter.

The concept that learning is a process that operates as an interaction between the individual and the environment was also supported by Jean Piaget (1896 - 1980). Although renowned for his work in new methods of gathering and reporting research, Piaget was first and foremost a pioneer in the study of children's cognition. His formulation of cognitive development as children mature was particularly innovative (Piaget 1952). When applied to formal learning environments, Piaget's perspective demanded the inclusion of discovery learning and support for the individual learner both inside and outside the classroom setting (Huitt & Hummel 2003). This criterion, for the learner to

have concrete experience, is the crucial element that connects Piaget's perspective to that of Dewey and subsequent experiential educationalists.

### ***Behaviourism versus Cognitivism***

Traditionally there have been two opposing approaches to the scientific investigation of learning and the way humans behave, namely *behaviourism* (sometimes referred to as the *connectionism*) and *cognitivism*. The former is principally concerned with stimulus (S) and response (R) connections (S-R) that can be manipulated in a way that are observable and from which inferences can be made (Pavlov 1927). The latter, on the other hand, argues that the inner functions of humans should also be studied with respect to learned behaviour in particular the brain, perception, personality, motivation and memory. (Child 1997)

### ***Constructivism versus Realism***

One of the principal debates with respect to the nature of learning involves the concept of *Constructivism* versus the opposing concept of *Realism*. In summary, the debate turns on opposing views of both knowledge and learning. With respect to the former, epistemological opinion ranges in a continuum between two extreme positions from considering knowledge to be 'out there', independent of the learner and thereby able to be accumulated (the Realist position) and the opposing view that there is no knowledge without a knower who personally participates in all acts of understanding (the Constructivist position) (Kincheloe 1991).

The psychology of learning equally ranges in a continuum from the extremes of considering learning as incremental which systematically provides information to the unknowing learner (Realism), versus viewing it as constructing meaning within existing knowledge and a particular social, historical, and linguistic context (Constructivism) (Hein 1995).

Hein (1995, 1998) considers these two continuums together define four different approaches to education. *Traditional Lecture and Text* deems knowledge to exist outside the learner, must be elicited from an authoritative

source and should be provided incrementally. From this perspective a teacher has the responsibility to understand the subject material, organise it in an appropriately logical sequence and present it in a way that begins with the simplest components and moves progressively into areas of greater complexity until the whole topic field has been covered.

*Discovery Learning* takes the same positivist form in that it exists outside the learner but assumes the alternative point of view with respect to learning in that it is deemed to be constructed by the learner themselves. In other words, it is the individual who uses their own cognitive processes in coming to realise the concepts that the educator is attempting to transmit.

*Behaviourist Learning* is posited to be the condition where learning operates incrementally as with traditional learning but that all resulting knowledge is constructed by the learner themselves. As such, it reflects behaviourist theories noted above where stimuli are presented by the educator but, outside observation and inference, there can be no certainty regarding the nature of the corresponding learning.

*Constructivism* argues that both knowledge and the manner by which it is obtained depend on the mind of the learner. Appearing to be supported by recent findings in neuroscience as well as Falk and Dierking's (2000) Contextual Model of Learning introduced previously, such an approach argues that learners constantly reorganise and re-create both their mental constructs of understanding as well as the manner by which such understanding is appropriated. The resultant constructs are therefore personal and have no particular validity outside of those knowing minds. In the words of Jeffery-Clay (1997, p.3):

Constructivist theory holds that prior experience is of primary importance. Rather than learners being empty vessels into which information is poured, they come...with a wealth of knowledge already organized. It is upon this knowledge structure that learners hang new information, creating new links to their pre-existing knowledge. To learn meaningfully, a person must integrate new knowledge into his or her conceptual structure.

Thereby, the process of constructivist learning can be viewed not in terms of the accumulation of information but as the process of 'transforming

conceptions'. As such, prior experience acts as a 'frame of reference' by which new information, both internal and external, is appraised for importance, understandability and meaning before being assembled into newly constructed 'schemata' or 'constructs' for composite recollection (Edelman 1987; Damasio 1994). Moreover, such reassembly occurs not just once, but continuously, often resulting in ever-changing memories over time. In the museum context this results in visitors recalling 'most vividly the exhibitions that are built on prior knowledge, rather than those that presented totally novel objects and ideas' (Falk & Dierking 2000, p.27).

This approach readily complements the work of Piaget and Inhelder (1969) who found that through a process of *assimilation* the individual seeks to reinforce current knowledge by integrating new experiences into existing mental constructs, versus *accommodation* which sees existing schemata revised to acknowledge newly learned information. Falk and Dierking (2000) suggest that researchers often overlook this fact when assessing learning in museums where its measurement is almost exclusively based on major changes to existing knowledge rather than more subtle alterations. This is supported by Csikszentmihalyi and Schiefele (1992) who contend that one of the most important aspects of constructivism is that it allows for the motivation for learning which is evidenced in museums when the new experiences of visitors are connected with their existing interests, knowledge and emotionally valued topics.

With respect to a comparison between the concept of constructivism and that of meaning-making as discussed in the previous chapter, Hein (1999) argues that although the two terms are frequently used interchangeably, they are not synonymous. Whilst meaning-making 'is a general term that refers to what visitors inevitably do in museums, constructivism is a particular educational theory that not only acknowledges visitor meaning-making but uses it as a central component of a definition of education. All discussions of constructivism include meaning-making; but meaning-making does not imply constructivism' (p.1). In this sense Hein is viewing meaning-making as the pedagogical outcome of the meaning made of the data that is provided by the senses. It is



what we as humans do as we continually try to organise and select the constant stream of information that is absorbed from the external environment. It is our attempt to make sense of the world and as such is separate from the educational theory of constructivism as noted above. As stated by Hein (1996, p.30) 'Constructing meaning *is* learning: there is no other kind.'

### **A Neurological Approach**

Having briefly introduced selected opposing positions regarding the nature of learning and knowledge, it is now apposite to consider how the discussion might be further informed by reference to advances in neuroscience over recent years. With technological developments such as *positron emission tomography* (PET), *magnetic resonance imaging* (MRI), and *functional MRI* (fMRI) it is now possible to 'look' inside specific regions of the brain whilst they are functioning, thereby providing a radical review of many areas of psychology and neurology.

In this section, the relevant neurological processes are grouped under three headings, Perception, Learning and Memory.

#### ***Perception***

The operations involved in perception begin with the conscious and unconscious sensations continually being recorded by the body's sensory receptors that keep the organism informed about what is going on in its world (Gardenfors 2006). Because the resultant information is greater than the brain's processing abilities, selective attention is used to filter incoming data. 'In our moment-by-moment experience, we focus on specific sensory information and exclude the rest (more or less)' (Kandel 2006, p.311) (parenthesis in text). According to James (1890/1907) such selective attention can either be voluntary (largely related to conscious memory) or involuntary (an automatic response related to that which is perceived to be large in size, brightly coloured, mobile or involving blood, largely related to unconscious memory). Berns (2010) forges a link between perception and attention by noting that during the course of increased attention the details of a particular object become increasingly perceived, such that the attention changes the nature of

the perception. Such perception proceeds as the brain continually seeks to interpret these attended signals.

In the case of visual signals (particularly relevant in the museum context), information from the retina of the eye is transferred as electrical impulses by way of the optic nerve initially to the occipital cortex at the rear of the brain. Here the mental image receives its preliminary definitional interpretation of depth and boundaries before proceeding forward by way of two paths towards the frontal cortex (Berns 2010). The so-called 'high road' across the top of the brain determines where the objects are positioned in space with respect to the individual, while the 'low road' running just above the ears provides information about the nature of the objects themselves. Together, they build up a complex perception, or interpretation, of what the eye is seeing.

According to Berns (2010) the brain uses certain perceptual devices to save time and energy. Subjective assumptions of what is commonly expected based on past experience provide a differentiation between commonplace perceptions which involve minimal energy and uncommon perceptions which involve more complex processing. Categorization also capitalises on patterns of past experience to predict perception and thereby facilitate interpretation as used in routinised attitudes and behaviour. Automated appraisal, a form of guessing, involves the brain conducting imaginings that visualise possible options based on personal experience providing the most likely expectation of a particular event occurring. Repetition suppression involves the neurons firing in response to a given stimulus at a reducing rate as the incoming signal is 'learned' by the brain. In this way the neural network becomes increasingly energy efficient in performing its perceptual function. In long-term potentiation and long-term depression neural connections are altered not by stimulus repetition but rather through their relationship with the genes that control their function such that new connections are created to cope with increasing demand and those that have proved to be redundant are removed.

Importantly in terms of this study, the predilection of the brain to use such energy-saving devices works against the expenditure of mental resources required in learning (Berns 2010). To preclude such occurrence he contends

that subjective assumptions need to be overcome with an element of surprise, categorization requires providing the brain with unfamiliar information, automated appraisal requires the individual to consciously or unconsciously imagine alternative possibilities, repetition suppression necessitates attending to features that differentiate objects, and long-term potentiation/depression demands the increased neural activity that accompanies enhanced personal experience.

In short, the individual must 'bombard the brain with new experiences. Only then will it be forced out of efficiency mode and reconfigure its neural networks...The more radical and novel the change, the greater the likelihood of new insights being generated' (Berns 2010, p.54).

To the processes noted above can be added two others pertinent to learning, namely simulation and causation. Gardenfors (2006) posits that to sensory stimuli the brain adds simulated perception being that information arising from prior experience which it considers helpful in simulating the outside world in any particular situation. By way of such combined sensory-simulated totality representations of the world are constructed and interpreted by the brain. Moreover, by virtue of such simulations the writer contends that humans are able to generate comprehensive perceptions by which causes are perceived. Through such perceptions humans reason about the external world and determine predictions and expectations as to its nature. The capacity and propensity to look for and perceive such hidden mechanisms, even where there are none, is so innate in humans that it can be termed a 'casual drive'. It is this drive that establishes in humans 'the strong desire to find meaning in the world' (ibid, p.45).

### ***Learning***

Contrary to earlier opinion, learning does not occur in only certain sections of the brain but rather is dispersed across the whole organ (Greenfield 1997). More specifically, whilst previously it was considered that much thinking and learning was done in the *cortex*, it is now realised that what was hitherto considered to be a more 'primitive' part of the brain, the *limbic system*

(particularly the *amygdala*) is an important contributor to learning through its processing of sensory information on its way to the cortex. Moreover, because the amygdala is known to be integrally involved in the processing of conscious and unconscious emotions, it is now clear that emotions play a significant role in constructing meaning (Kandel 2006) using the 'emotional' neurotransmitters of *epinephrine*, *dopamine* and *serotonin* (Haberlandt 1998).

As incoming information is processed by the limbic system it is subjected to an emotional evaluation which is associated with, but separate from, the conscious awareness of emotion (Reiman et al. 1996). Each individual's brain places a different meaning to the information being processed, even though the actual processing does not vary between individuals. That is, each learner constructs their own meaning or interpretation from events (Kandel & Kupfermann 1995a). Such interpretation depends on the perceived importance of information measured by its personal relevance that in turn results from its emotional assessment (Celsi & Olson 1988). It is this assessment that is considered to be the principal director of attention and the necessary precursor to the process of involvement (Webb 1996).

Where new learning is comprehensible (makes sense) and is connected to past experiences (has meaning) the potential for retention is considered to be 'very high'. If it has meaning but does not make sense, or if it makes sense but has little meaning, then the potential for retention is 'moderate to high', whereas if there is neither sense nor meaning then the potential for retention is deemed to be 'very low' (Sousa 2001, p.47).

Incoming information is first stored in the *hippocampus* before being re-processed for storage. However, it is only that information which has emotional or meaningful connections survives for memory storage. The greater the degree of meaning, the stronger the memory trace (Kupfermann & Kandel 1995). Such memories are not stored intact in any one part of the brain but rather are 'broken up' and distributed in various specific areas connected by various complex networking processes.

According to Damasio (1994) such distribution takes the form of pieces of contextualised images. When the memory is recalled these images of information are reconstructed together with the emotion as well as interpretations, meanings and the sense of self that were involved in the original experience (Haberlandt 1998). In the same way, past experiences (including those which might appear unrelated) as well as past emotional states, are reconstructed internally with incoming ones. From this it can be seen that learning is made up not of a singular message but multiple messages which are linked into a unified whole (Crick & Koch 1990). Also, because individuals as learners are all different (including expectations, temperament, attitudes, past experiences, self-image), the nature of the learning that occurs will be different.

Recent research has indicated that such messaging is not the only form of neurological reconstruction that occurs. According to Kandel (2006) the process of learning involves an alteration to both the number and strength of the synaptic connections of the nerve cells in the neural circuitry. Such changes can therefore be seen to constitute the neurological basis of learning and memory. In other words, the experience of learning changes the brain of the individual and the variety of such experience between individuals results in the uniqueness of their neural architecture (Kandel 2006). Moreover, such increased circuitry not only allows for higher cognitive functioning but also enables more learning to occur.

### ***Memory***

Memories gain import in part because they represent a holistic and cohesive consciousness of who we are as individuals and how we define ourselves to ourselves (Kandel 2006).

According to the *duplex theory*, the processes of memory storage involve three distinct structures, being the *sensory register* (SR), the *short-term memory* (STM) and the *long term memory* (LTM) (Child 1997). The SR involves the processes of *attention* and *selective perception* of momentary images that are picked up by the sensory organs from the environment as referred to above.

Through their almost instantaneous deployment (hundreds of milliseconds) certain perceptions are conveyed to the second structure, the STM, while the others disappear from the register. In this temporary processing and storage facility a limited amount of information is either selectively attended to and encoded in order that it may be transported to the LTM or rapidly decays (within seconds). Such encoding is performed according to perceived (by the brain) relevance to existing networks such that new information is also more likely to be retained if it fits existing mental schemata (Allen, Siegel & Rosinski 1978).

Information can also be retained through the process known as *chunking*. This allows contextual information or 'clues' to be used by the brain to put together similar information into meaningful categories or patterns (Ham 1983). For example, items are better remembered if placed within a real-world context than being presented randomly (Biederman 1972). The relevance of this finding appears two-fold. Firstly it reinforces the importance of previous memories in organizing the chunking of new information. Secondly it provides the means by which constructivism can occur, namely the overlaying of new chunks of information, assembled according to the clues provided by an external agency or the individual's own memory, onto existing constructs of information, experiences, beliefs etc. Once in the LTM the continued survival of the information will depend on several factors including repetition and the nature and extent of the emotion experienced during the processing of the initial sensation.

The difficulty in the duplex theory is its assumption that all learning undergoes this passive, systematic and linear processing, whereas evidence somewhat indicates to the contrary. For example, Parker (2006) posits that individuals constantly check existing conceptual frameworks (in the museum setting what they think an exhibit is about) against the arrival of new information. Where the new information fits the existing context encoding will continue. However, where the new information does not fit it is held out of context until the processing error can be discovered. Should this is achieved relatively quickly, there will be a minimal loss of interest or understanding. If, however, the time

delay to construct a replacement context is considerable then there will be a substantial degree of out of context informational build-up eventually leading to confusion and attention-switching by the visitor unwilling to expend the time and effort to deal with the inherent confusion.

In order to complete this commentary on memory storage, it is necessary to identify the different forms of remembering that operate in what is termed the LTM's *implicit memory* (not requiring conscious recollection) and *explicit memory* (requiring conscious memory of past experiences) (Groeger 1997). While the former involves the release of the neurotransmitter serotonin mentioned above, the latter triggers the release of dopamine by the cerebral cortex to induce attention that in turn modulates activity in the hippocampus that leads to long-term memory storage (Kandel 2006).

With respect to explicit memory there are three types, namely *semantic*, *procedural* and *episodic* (McManus 1993). Semantic memories deal in concepts and can form associations that create new information (If the individual learns that  $a=b$ , and remembers that  $b=c$ , the brain will interpret these two memories to infer that  $a=c$ ). Procedural memories are the product of learning complex physical movements (such as dance choreography) while episodic memories relate to autobiographical personal experiences that, unlike semantic memories, are time and context dependent. Such memories allow the individual to use past experiences to formulate future behaviour and, according to McManus (1993), are the most vulnerable to forgetting. It should be noted, however, that it is possible to have all three categories of memory about the same object or experience (for example, a semantic memory about the nature and location of a particular museum, a procedural memory about how to operate a particular interactive exhibit, and an episodic memory as to the date of the visit and the accompanying associates). Short term storage of explicit memories initially uses the prefrontal cortex before they are converted into long-term memories in the hippocampus. Thereafter they are stored in the same parts of the cerebral cortex that originally processed the information namely visual, somatosensory, motor or auditory. Implicit memories, on the

other hand, are stored in the cerebellum, striatum and amygdala (Kandel 2006).

Whether explicit or implicit, memories involve a perception of the world that is neither objective nor precise. Rather, information received by the sensory systems is analysed, deconstructed and later reconstructed 'according to its own built-in connections and rules' (Kandel 2006, p.302). As a result, external stimuli are altered both in nature and extent according to internal parameters that provide their own subjective meaning. In short, perceptual inputting is an act of interpretation and such interpretation is meaning.

As against memory inputting, *Retrieval* relates to the process of recovering information from memory, either the STM or the LTM. To initiate a retrieval from the LTM a cue, either from an external stimulus or the individual consciously searching through their memory banks, is activated which brings the remembered item back into the STM where it can be made conscious and worked on. Retrieval of such information can be performed either through *recall, recognition or relearning*.

Recall requires active remembering of actions, thoughts, or feelings previously experienced (for example, driving a model of car that is exhibited in a museum). The ways by which the memory was first encoded can also enable the recall. These can be *audio* (for example, hearing an old song), *visual* (for example, seeing a faded photograph), *olfactory* (for example, smelling something that made one remember a childhood kitchen), *tactile* (for example, the touch of old leather) or *feeling* (for example, remembering how one felt the first day of school). It should be noted, however, that such recall is a creative process. What the brain stores is considered to be only a core memory which is 'elaborated upon and reconstructed, with subtractions, additions, elaborations, and distortions' (Kandel 2006, p.281). Recognition involves information as remembered that relates to other information that is provided (for example, realizing that an exhibit item as being similar to the long-forgotten type that one's mother used) while relearning is the process of re-entering information that had once been learned but has subsequently been forgotten due to the



passage of time (for example, relearning the words of a song appearing in an exhibit that one used to sing as a child but had long since forgotten).

*Forgetting*, on the other hand, is the process of being unable to recall previously remembered information. The reason for this occurring depends on whether the information resides in the STM or the LTM. If the former it can be the result of *overload* (due to the limited storage capacity of the STM), *decay* (disappearance due to chemical changes causing disappearance of memory traces in the nervous system) or *displacement* (when existing information is displaced by arrival of significant new information). With respect to the LTM, forgetting can be caused by *interference* (confusion caused when memories are very similar or when the memory of one has been obscured by another), the *destruction of brain tissue* (advancing age or Alzheimer's disease) or *motivated forgetting* (repression or amnesia related to very unpleasant emotions) (Child 1997).

In summary the above neurological discussion appears to reinforce three particular concepts. The first is the subjectivity of perception and learning. The processes inherent in perception, including attention, categorization, appraisal, simulation and causation ensure that different interpretations will be placed by individuals on the same information. Similarly, personal comprehension and perceived relevance determine that the meaning-making processes inherent in learning are equally selective. The second is the limited nature of perception and learning. Due to the architecture of the brain only a portion of what is received by sensory receptors can be processed through perception and encoded into short and long term memory. As a consequence, the brain undertakes a variety of efficiency measures including chunking, potentiation and depression in order to use the existing facilities to greatest effect. Again, as a result, incoming information is prioritised according to importance and consistency with existing mental schemata. In that regard what is considered (by the brain) to be irrelevant, complex or unrecognizable will generally be ignored. The third is the vitally important role played by emotion. Due to the participation of the amygdala in the processing of both emotions and incoming information that which is deemed to have personal relevancy and meaning will

also be that to which is attached emotional importance. In short, emotion determines meaning that determines learning.

From the discussion above only with attention sufficient to engage the necessary degree of involvement will learning in terms of meaning-making occur. Achieving such attention requires, according to the literature, the influence of *motivation*.

### **Motivation and Learning**

Despite the efforts of both Behaviourists and Cognitivists to ignore its relevance, the role of motivation has recently re-emerged as vital to the learning process. This is particularly so in museums where researchers contend that it is motivation that drives the self-selection process that determines which exhibits the visitor wishes to see based on their personal interests, desires, expectations, experiences and attitudes (Doering & Pekarik 2000; Pekarik, Doering & Karns 1999). As such it has been posited that visitor learning is as much a result of motivation as it is a consequence of the experiences encountered within the museum (Falk & Storksdieck 2005).

In terms of its fundamental nature, motivation is presented in two forms. While *extrinsic motivation* is that which results from environmental incentives, consequences and rewards outside the activity and thereby represents the means to another end, *intrinsic motivation* emerges from within the activity such that it becomes the end unto itself (Reeve 2009).

#### ***Extrinsic motivation***

In the 1950's, the motivational and social aspects of learning were examined by Abraham Maslow (1908 - 1970) and Carl Rogers (1902 - 1987) who developed the notion of humanism in the context of learning. Rogers argued that learning can only be facilitated, not taught directly, and that the individual learns only those things that are perceived to be conducive to the maintenance or enhancement of self (Falk & Dierking 1992). Maslow (1954/1970) postulated an approach to motivation by asserting that certain basic needs could be arranged

in ascending levels of 'humanness' from the physiological to safety, belongingness, self-esteem and self-actualization.

Those levels that appear to be of most relevance to an examination of learning are the three nearest the top that Maslow refers to as *growth needs*. With respect to cognition, he suggests that they include the knowledge needs of *curiosity, exploration* and *manipulation* as well as the understanding needs of *systematization, organization* and *analysis* in a search of order and meaning.

Maslow's '*hierarchy of needs*' began to be the subject of some debate in the later 1950's when certain researchers were unconvinced that the physiological need for food and security did not explain the desire of rats to explore new territory, experiment with novel tasks and work in order to be presented with items that were novel (Csikszentmihalyi & Nakamura 1989). Such observed behaviour appeared to be less extrinsic and more intrinsic in nature, that is undertaken as an end in itself rather than a means to some other end. Such a determination proved to have a seismic influence on learning theory.

### ***Intrinsic Motivation***

Intrinsic motivation, as classified by Deci & Ryan (1985), is that which is associated with the inherent propensity to seek out, engage with, and be challenged by one's interests 'just for the fun of it'. Reeve (2009) suggests that it emerges from the psychological needs of the individual for growth which can be satisfied through performance of interesting, need-satisfying behaviour. As the individual performs the activities or behaviour they experience spontaneous feelings of autonomy, competence and relatedness to others.

Intrinsic motivation appears to have several significant benefits. It results in greater degrees of persistence (Ryan et al. 1997), enhances creativity (Amabile 1983), encourages more conceptual understanding, flexibility and active information processing (Benware & Deci 1984; Grolnick & Ryan 1987) and is associated with higher psychological well-being, vitality and self-esteem.

Lepper and Hodell (1989) postulated four key sources of intrinsic motivation. *Challenge* relates to meeting the learner's interests and capabilities while

*curiosity* refers to a natural human propensity which is stimulated by novelty and in turn stimulates attention. *Control* reflects the fact that learners have an interest in those things over which they perceive to have some control while *fantasy* involves the imagination, simulation and games. The list was expanded upon by Deci (1992) with the addition of *competence*, *self-determination* and *relatedness* while Pintrich et al. (1991) added *mastery* and Bye, Pushkar and Conway (2007) found there to be *self-initiated exploratory strategies* in addition to the characteristics noted above.

However, determining the sources of intrinsic motivation does not necessarily inform the discussion regarding how information is sufficiently attended to in order for it to be learned. This requires consideration of other psychological forces. These were identified by Csikszentmihalyi and Hermanson (2004, p.148) to be a combination of *curiosity* (referring to 'individual differences in the likelihood of investing psychic energy in novel and unexplained stimuli') and *interest* (considered to be 'a differential likelihood of investing psychic energy in one set of stimuli rather than another'). By appropriately utilizing the former, learning contexts are viewed as potentially able to attract the attention of the individual long enough to allow for a sufficiently extensive interaction during which learning may occur. The latter, in turn, provides a 'frame of reference' by which continual stimulation of the content in the learning environment can be selectively ordered, again with a potential learning outcome.

As the motivation to learn necessarily exists in terms of its relationship to the individual through whose identity motivation is expressed, it is important, in terms of understanding the nature of learning, to better understand the nature of the learning self.

### **Identity and Learning**

The conjunction between identity and learning has already been alluded to with respect to the Personal Context of Falk and Dierking's (2000) Contextual Model of Learning as well as the transformative nature of museum learning posited by Packer and Ballantyne (2004). Regarding the nature of identity, the literature offers a number of definitional perspectives.

Levinson (1990) describes *self* as how the individual perceives themselves versus *personality* as how the individual is perceived by others. *Identity*, on the other hand, is described by Kidd (2002) as a more holistic form of self in combination with certain defining external associations such as sporting, social and cultural groups and activities. This approach appears to reflect the concept of self adopted by James (1890/1950) who considered it in an ontological fashion to consist of the self of the knower (the 'I') together with that which is known (the 'me'). In its widest definition, it was seen to incorporate all that the individual possessed, not only the mind and body but also family, reputation, social status, possessions, works and even thoughts. As such, the fundamental criteria between self and non-self is one of identification.

Reflective of James (1890/1950), Falk (2009) delineates the self between those limited, fundamental and strongly-held identities such as nationality, gender, race and religion (what he refers to as the 'Big 'I' identities') and those more multiple identities which drive everyday needs, thoughts and realities (referred to as 'small 'i' identities'). It is the latter group that he posits provide the suite of identities that determine such activities as work commitments, family responsibilities and leisure motivations. Because of their frequency and universality in the world of the individual, he further contends that such situated identities can often be considered to be more motivating of behaviour and thereby definitive of the self than the others.

Interestingly, according to Identity Theory (Stryker and Burke, 2000), such behaviour not only provides feedback that demonstrates the individual as someone who can be defined by that behaviour but also suggests that individuals tend to seek out those activities and behavioural opportunities that reaffirm their perceived sense of self. In the context of these identities Falk (2009) contends that leisure becomes important as a motivated form of behaviour while museum affordances provide an opportunity for such self prescription and endorsement.

Traditionally, theorists commonly conceptualise self and identity as cognitive structures which are stable over time and represent a set of beliefs about oneself, acting as an interpretive framework for our experiences and a

regulative structure for our behaviour (Markus & Wurf 1987). However this approach does not appear to reflect the ever-changing nature of self nor its contextual nature and interconnection with emotion. Rather, as Harter (1998) contends, opinions about oneself are intertwined with emotions, are dynamic phenomena, and are embedded in the individual's relationship with the context. Echoing this sentiment and reflective of the constructivist learning model noted above, Rounds (2004) views self as having a fluidity that reflects its ever-changing relationship with the world, not only over time but also according to need and circumstance. As such, it is continually being re-constructed according to the needs of the social, cultural and physical environments or varied according to the demands of any particular situation (Falk 2005).

In the museum context the individual's sense of self has been shown to be capable of being forged or affirmed as a result of the two-way interaction between the experiences, motivations, attitudes and agendas that it brings to the environment and the artefacts and feelings experienced during the visit (Falk 2006; Hooper-Greenhill 2000; Kelly 2009; Rounds 2006). In other words, the objects and experiences of the museum can subtly alter the individual's view of themselves, their part in the world, and the meanings associated with both (Ivanova 2003), a sentiment echoed by Kelly (2009, p.51):

(L)earning is a creative process of change in a person's identity - from not knowing to knowing, or being able to do something that hasn't been done before. In a broader sense learning could also lead to some major change within an individual's identity - in their perceptions, attitudes, behaviour, or the way they see themselves, others and their world.

Further, Falk (2006) argues that visitor identities, motivations and learning are inextricably linked such that identity influences motivations which in turn affect behaviour which in turn impacts learning. In other words, the visitor's entering identity not only filters the nature of the learning experience but also provides the identity-related motivation for the visit, being the expression and reinforcement of such identity. Moreover, Falk, Moussouri and Coulson (1998) contend that through differing identities different forms of visitation motivation results in different forms of learning. This is perhaps not surprising given that one's motivations to visit are predicated on personal interests, experience,

opinions, attitudes and knowledge to say nothing about such external influencing factors as the accompanying social group, the environment of the museum and the nature of the exhibits. The question thus becomes one of how the individual defines the nature of their identity.

The answer, it appears, lies more in the plural than the singular as the individual assumes a number of identities as required by need and circumstance (Cooper 1999). Whilst some such identities might be enduring (those built around core values, attitudes and beliefs), most are, according to Rounds (2004), transitory and situated in that they are appropriate for the circumstances in which the individual find themselves at any one time.

As described in chapter two, Falk (2006, 2009) and Falk and Dierking (2013) use a similar description in their determination that most museum visitors enact a museum identity which accords with their circumstances and is specific to that particular visit. Such an identity may be, for example, a 'tourist', a 'parent, or the 'carer' of an aging relative, with each resulting in a different pattern of learning. Having determined these classifications, the researchers found that, either separately or in certain combinations, they correlated with the nature and extent of the learning that occurred during the visit but particularly that which was remembered over longer periods of time. In summary, it can be said that the visitor's entering identity not only filters the nature of the learning experience but also provides the identity-related motivation for the visit, being an expression and reinforcement of that identity.

Finally and importantly, Golding (2009) notes by way of her feminist-hermeneutic model of understanding, that such modification and/or growth of the self emerging from the process of learning in the museum context can only occur by way of a willing visitor. More particularly, it results by virtue of a continuing respectful dialogue between individual and object, a reflexive attitude by the individual to reflect on taken for granted personal prejudices and traditionally accepted notions, and a willingness to transform prejudices in the light of continuing new knowledge. Where there is such 'openness' to abandoning current beliefs and conceptual positions, there exists the potential for self-defining realisations and changes.

As a consequence of this model, Golding (2009) argues that opening up museums to diverse views, often through creative storytelling and even play, can enliven the environment, encourage social inclusion in the wider community, and engage institutions in a dynamic dialogue with new audiences.

### **Experience and Learning**

From the Aristotelian perspective noted above, experience appears of principal concern in the gaining of knowledge. As indicated, its importance was reinforced by Immanuel Kant (1781/1958), who recognised its influence on the assimilation of new information, as well as by Dewey (1925/1958), who linked it with emotion and meaning, and Piaget (1951/1962), who considered concrete experience to be crucial in the development of cognition in children. In the previous section it was also shown that an individual's sense of self could be forged or affirmed as a result of their experiences. The objective of this section is to examine how experience can be defined and related to the process of learning?

### ***Defining Experience***

Boud, Keogh and Walker (1985, p.18) define experience as 'the total response of a person to a situation or event: what he or she thinks, feels, does and concludes at the time and immediately after.' As such, experience contains judgement, thought and connectivity with other experiences. In the words of Dewey (1938/1975, p.44) 'every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after.' Moreover, experience involves perception, implies consciousness and is invariably associated with meaning. According to Boud and Walker (1991, p.18) 'Each learner forms part of the milieu, enriching it with his or her personal contribution and creating an interaction which becomes the individual as well as the shared learning experience.' In this regard the writers point to the characteristics of complexity, continuance, meaning and individual change in self that they deem to be inherent in the nature of experience. The primacy of experience in the process of learning is further emphasised by Boud, Cohen and Walker (1993, p.8) when they state:



We found it to be meaningless to talk about learning in isolation from experience. Experience cannot be by-passed; it is the central consideration of all learning. Learning builds on and flows from experience; no matter what external prompts there may be - teachers, materials, interesting opportunities - learning can only occur if the experience of the learner is engaged, at least at some level. These external influences can act only by transforming the experience of the learner.

### ***The Nature of Learning from Experience***

When considering the nature of '*learning from experience*' (otherwise referred to as *experience-based learning*) Boud and Walker (1991) propose the following five conditions:

1. In line with constructivist principles outlined previously, new ideas and new experience must relate to previous experience in order to have meaning and be learned. Moreover, 'We bring the whole of our life to every learning event and any aspect of our past may be brought into play' (Boud, Cohen & Walker 1993, p.9).
2. Learners actively construct their experience. Thereby, the nature of experience is one of interpretation. Based on external stimuli as well as previous experience, both cognitive and emotive, the individual interprets current circumstances and thereby constructs their experience either consciously or unconsciously. Such interpretation gains its import through the meaning that it provides to the experience, a meaning that might well change through subsequent reinterpretation in the light of new information or reflection on the old. It is through such subjective interpretations elicited by way of personal knowledge, expectations, attitudes and emotions that different individuals construct different experiences from the same circumstances, an issue that induced Dewey (1925/1958, p.1) to comment that 'experience is a weasel word. Its slipperiness is evident in an inconsistency characteristic of many thinkers.'
3. Learning from experience is a holistic process in that it is comprised not of separated domains but rather an interconnected whole of cognitive, emotive and psychomotor components. Whilst one or more of these

might operate at any one time, the writers contend that learning involves all three.

4. Learning is socially and culturally constructed. That is, the context of the social setting and cultural values act to circumscribe the nature of the interpretation and hence the experience, and thereby the learning. However, new learning can be arrived at through an acknowledgement of such interpretive constraints leading to a reinterpretation of past events in the light of new information and ways of thinking.
5. Experience-based learning is influenced by the socio-emotional context in which it occurs. That is, emotions and feelings are not relegated in importance behind the intellectual and practical but rather are recognised as being fundamental in terms of both possibilities and barriers.

Having introduced the topic of learning in relation to experience it is appropriate to discuss its associated theoretical construct, that of Experiential Learning.

### ***The Nature of Experiential Learning***

By way of distinguishing *learning from experience* from *experiential learning* Usher (1993, p.169) defines the former as 'that which is consciously unrecognised and unreflected upon in everyday activities of life' while the latter 'examines such everyday life and constructs it in a disciplined and systematic way to determine how and why learning might occur.' In this sense the former can be viewed as an everyday business of individuals while the latter represents an epistemological discipline.

In that sense, Kolb (1984) considers the term 'experiential' to be appropriate for two reasons, namely that it ties it back into the foundational theoretical work performed by Dewey (1925/1958), Lewin (1951) and Piaget (1951/1962), and that it emphasises the central role that experience plays in the learning process. As such he believes that it successfully differentiates experiential learning from various forms of cognitive learning theory that tend to favour the acquisition and manipulation of abstract symbols, as well as from behavioural

learning theories that have no particular need for subjective experience in the learning process.

### *The Foundations of Experiential Learning*

Dewey (1925/1958) presents the developmental nature of learning in an overt fashion, describing how stimuli, emotions and motivation raise concrete experience into an increasingly higher order. For Dewey the impulse of experience gives an idea its forward momentum while ideas in turn give direction to the impulse. Here the immediacy of action must be delayed with observation of surrounding conditions, knowledge of what has happened in similar situations in the past, and judgement in order to allow purpose to develop into a plan and method of action based on an understanding of the consequences of that action.

The intellectual anticipation, the idea of consequences, must blend with desire and impulse to acquire moving force. It then gives direction to what otherwise is blind, while desire gives ideas impetus and momentum' (Dewey 1938/1975, p.69).

Lewin (1951,1952) used social psychology in his specialization of group dynamics and organizational development, placing great emphasis on subjective experience and personal involvement. His experiential learning model indicates learning to involve an integrated four stage process that begins with a concrete experience, continues with observations and reflection, develops relevant abstract 'theories', deduces new implications for action, and feeds these back as guides into creating new experiences. As a result of this process of continual feedback, Lewin argued, much of the ineffectiveness and inefficiency of individual and organizational goal-directed learning would be avoided.

Piaget (1951/1962) took the elements of experiential learning suggested by Dewey and Lewin, namely experience, reflection, conceptualization and consideration, and added the extra dimension of time - that is, the growth and development of human thought as the individual moves from infancy to adult. For Piaget there is a cycle of interaction between the individual and the environment such that there is the process of *accommodation* of concepts or

schemas to experiences from the world and there is the process of *assimilation* of experiences from the world into existing concepts or schemas. While Piaget (1951/1962) utilised this principal for the stages of children's development and suggested a stage after which all new experiences were assimilated rather than accommodated, the findings of Riegel (1973) and Buck-Morss (1975) indicate that accommodation can continue to operate into and through adulthood.

Kolb's (1984) own experiential learning model offers only two dimensions namely concrete experience/reflective observation and abstract conceptualization/active experimentation. In short, the model is a simple description of how concrete experience is, through observations and reflection, translated into abstract concepts and generalizations that in turn guide the choice of new experiences. As such, it echoes Freire's (1972) concept of *praxis* that involves a combination of reflection and action in a common world context capable of altering both the individual's view of the world and the world itself.

With respect to the reference made to *concrete experience*, Burnard (1991, p.23) seeks to clarify what is meant by stating that the term does not necessarily refer to 'doing something' but rather should be considered as being 'engaged in an activity that should lead to learning' as opposed to the passivity of traditional teaching models. Similarly with respect to the nature of reflection, Burnard (1991) views it as a potentially introspective process whereby the learner integrates new experience with old. Reflecting the necessary involvement of self, Burnard (1991, p.21) defines experiential learning as 'any learning activity which enhances the development of experiential knowledge' and thereby has a differential impact on the self-concept.

According to Kolb (1984, p.26) all experiential learning frameworks have a number of characteristics in common, being:

- Learning is best conceived as a process, not in terms of outcomes;
- Learning is a continuous process, grounded in experience;
- The process of learning requires the resolution of conflicts between dialectically opposed modes of adaption to the world (that is, for Lewin

(1951), concrete experience versus abstract concepts/observation versus action; for Dewey (1925/1958), the 'moving force' of impulse versus the direction of reason; for Piaget (1951/1962), accommodation versus assimilation; for Kolb (1984), reflection versus action/ feeling versus thinking);

- Learning is a holistic process of adaptation to the world, involving not only cognition but also emotion, perception and behaviour;
- Learning involves transactions between the person and the environment by way of assimilation of new experiences into existing concepts and accommodation of existing concepts to new experiences; and
- Learning is the process of creating and re-creating knowledge internally by the learner according to a constructivist model.

While Kolb's work is widely cited, the theory has also been criticised. For example, Tennant (1988/1997) questions the proposition that a complete learner is a balance of all learning styles. He argues that this is an unfounded conclusion since not all learning requires application of these styles. Other criticisms include the fact that empirical support for the model is weak and that the approach does not include a measure for the extent to which learning styles are integrated (Tennant 1988/1997). Nevertheless, it could reasonably be said that the work of those noted above, including Kolb (1984), provided an appreciable sense of theoretical rigour to what might otherwise be seen as a rather 'frameless' construct.

### *The Importance of Reflection*

According to Kolb (1984), and indeed to the very notion of experiential learning, the process of reflection is fundamental. Using his learning cycle and the movement of the learner around each of the two primary dimensions as the foundation of his argument, Kolb contests that the individual cannot learn without reflection.

Boud, Keogh and Walker (1985, p.10) define reflection in the context of learning as a 'generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new

understandings and experiences.' To this can be added the 'common sense view' of Moon (2004, p.82) that states:

Reflection is a form of mental processing - like a form of thinking - that we may use to fulfil a purpose or achieve some anticipated outcome....applied to relatively complicated, ill-structured ideas for which there is not an obvious solution and is largely based on further processing of knowledge and understanding that we already possess.

As such, reflection appears to take the form of a cognitive re-construction of existing schemata in order to achieve further insights.

More particularly, reflection is seen to be the process whereby the experience that preceded it is consciously recaptured, thought about and evaluated in terms of the totality of the cognitive, behavioural and emotional experience. In so doing, the learner examines the new experience in the light of the old, considers it in relation to pre-established goals and future behaviour and integrates it into a revised schemata in what could be viewed as a constructivist process.

Although reflection is an experience (More 1974) it is better considered as the means by which other experiences are explored, be they intellectual, emotional and/or behavioural. As a consequence, reflection must always be a conscious versus sub-conscious process if the learner is to have use of it to influence future activity. This is not to say that reflection cannot be sub-conscious in nature (Boud, Keogh & Walker 1985) but rather that as such it is not available for use in the process of conscious learning.

Finally, reflection again emerges in the comprehensive definition of McGill and Weil (1989, p.248) who state that experiential learning is:

the process whereby people individually and in association with others, engage in direct encounter, then purposefully reflect upon, validate, transform, give personal meaning to and seek to integrate their different ways of knowing.

This statement is particularly interesting as it assembles all the pertinent principles of experiential learning including its necessity for the experience to be personally conducted, consciously reflected upon at any time thereafter,

perceived as correct and significant and transformed into storable knowledge which is personally important and understandable. In addition, the definition includes the potential for learning to occur as individuals together and not just singularly. In the context of museums, where most visitation is done by couples or groups, such reference is not only relevant but illuminating.

### *Experiential Learning and Emotion*

Weil and McGill (1989b, p.27) state: 'a hallmark that tends to separate experiential learning theorists from the rest is their determination...to acknowledge the role of affect' in the process of learning.

Boud and Miller (1996, p.10) reinforce the point by adding that 'emotions and feelings are key pointers to both possibilities for, and barriers to, learning. Denial of feelings is denial of learning.' They continue: 'The affective experience of learners is probably the most powerful determinant of learning of all kinds...Feelings and emotions provide the best guides we have as to where we need to devote our attention' (Boud & Miller 1996, p.170). This stance was echoed by Neuman (1996) in his two year longitudinal study of critical reflection and leadership which found that the processing of emotions is integral to experiential learning, that emotions are often the trigger and 'guideposts' for critical reflection, and by exploring such emotions, enhanced meaning and self-awareness can result.

The importance of the emotional dimension is also identified by Heron (1990, 1991, 1992) in his *multi-modal learning* scheme that seeks to describe the processing of the human psyche whilst undergoing experiential learning. The writer conceived of four modes of learning which he assembled in what he termed an 'up hierarchy' such that each mode is dependent on its predecessor. At the top of the hierarchy, the first mode represents learning through doing. The second refers to various forms of language be it spoken, mathematical or symbolic. The third mode denotes the learning gained from understanding processes as a whole. The fourth, upon which all others are based, is the emotional. Heron refers to it as being the one that represents learning by direct experience - by 'being there', immersed in the experience.

What makes Heron's model interesting is the interconnectivity of the modes that embellish the concept of experiential learning. More specifically, Heron sees the relevance and attractiveness of the action mode arising from the strength and clarity of the conceptual mode, which in turn is supported by the imagination, and is nourished by the emotional level. What is clearly evident is that the emotional mode of learning is fundamentally important as it is the base upon which all others rest - a validity of knowledge grounded in an awareness of feeling. Heron is quick to point out, however, that this does not mean that emotion rules the higher levels but rather that it allows the higher ones to develop through having a sound base in emotionality. His support for the elevation in importance of emotion in epistemological research is echoed by Postle (1993, p.35) who fervently argued that 'this cultural bias in favour of the supremacy of intellect, coupled with the idealization of practicality, too often acts to lock out from the generation of knowledge, the riches of the universe of feeling.'

In terms of the onset of emotion (and as a refutation of Kolb (1984) and his theory that 'learning takes place through a rational process of making sense of an experience that has already occurred' (Lawrence 2008, p.69)), Michelson (1996) argues that learning occurs in the moment of feeling the emotion and the bodily sensations as a result of the experience, not during the later process of reflection. As such, learning is understood as a moment of emotional and physical response to the experience rather than a moment of dispassionate self-reflection. As such she is arguing for both the interconnectedness of cognition and emotion in experiential learning as well as the assertion that bodily sensations precede cognitive understanding. To Michelson (1996) the experience of the tightened stomach, registering anxiety, and the rapid heart rate, occasioning fear, occur prior to the cognitive and conscious reflection of Kolb (1984).

As such, Michelson (1996) is not adopting the James' (1884) argument for physiological changes proceeding cognitive appraisal with respect to the elicitation of emotion. Rather, reflection necessarily necessitates appraisal whereas appraisal does not necessitate reflection. The distinction can be



demonstrated with respect to watching a sad film. The bodily state of tears is closely (in terms of time and causality) connected to the felt emotions of sadness. The reflection follows thereafter as the individual reflects upon the nature of their response to the film, thereby gaining a greater insight into themselves and the world.

### *Experiential Learning and Neurological Bias*

Mention has been made earlier in this chapter regarding the differing nature of neurological functions between those seen as more discrete and analytical (referred to by some writers as 'left hemisphere' or 'left brain') and those considered more intuitive and abstract (referred to as 'right hemisphere' or 'right brain'). While neurological research indicates less bi-modality of functioning than such binary categorization might suggest, many of the theories of experiential learning do appear to be biased towards the concrete, analytical, and linear. As a result, the concept of experiential learning and notion of reflection emphasises rational analysis. Gochenour (1993), on the other hand, sought to differentiate a way of knowing and learning that concerned itself with the intuitive, nonlinear, gestalt, and metaphoric functions thereby encouraging creative and abstract thinking (Mihov et al. 2010). As a consequence Gochenour's (1993, p.23) suggested definition of experiential learning refers to:

that avenue to awareness and knowledge derived from the perception of existential wholes, causing change in the one experiencing them, expressible primarily in the metaphoric, visual, imaginative and spatial terms and, secondarily, in words and concepts.

In other words, rather than experiential learning being singularly defined around the concepts of action, practicality, cognitive reflection and the concrete it can equally be defined by processes related to the imagination, gestalt insight, existential understanding and emotional reflection. As such it should be represented not in opposition to the more cognitive and verbal dimensions but rather as a 'duality of experience', thereby providing a more comprehensive concept of experiential learning with which to examine the self-directed process that occurs in museum settings.

## **Learning in Museums**

The following discussion links the learning theory above to the context of learning within museums. The legacy of Dewey is seen today in the exhibition practices of museums that have their epistemological roots in the early twentieth century institutions that applied his philosophy. More particularly, the value of exhibitions lies in 'integrated settings that foster discussion, challenge the learner, make connections to issues of interest to the learner, and provide guidance for application in the world outside the museum' (Dewey 1938/1975, p. 424). In other words, the educational benefit of the museum experience should be its ability to enable the visitor to have future educational experiences.

But what can be said about the nature of such experiences? In answering this question reference is made to two theoretical constructs. The first examines constructivism as a relevant approach for the self-directed museum learning experience. The second reviews experiential learning as an alternative approach that to-date has received limited attention in the museum literature.

### ***Constructivist Learning and Museums***

Hein's (1995, p.4) constructivist model of education can now be referenced for museums.

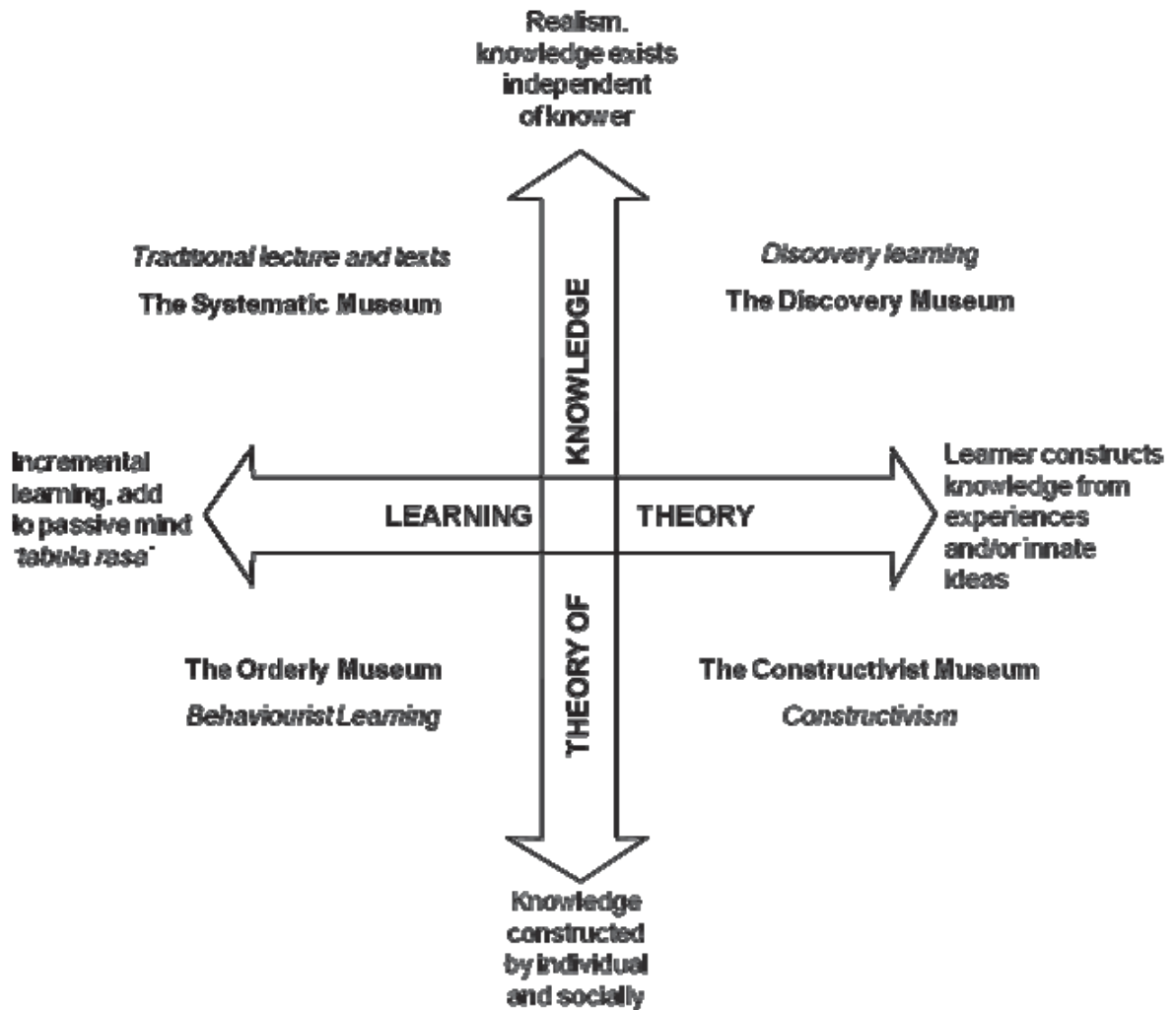


Figure 3-1 Theories of Museum Learning and Knowledge.

The form that the communication between institution and visitor takes depends on the philosophical approach taken, namely the *transmission approach* or the *cultural approach*. The former didactic form evident in the quadrants titled The Systematic Museum and The Orderly Museum (above), is based on forms of behaviourist learning which 'led to authoritative, didactic displays, frequently arranged to illustrate conventional epistemological hierarchies and classification...In this context 'interpretation' usually means that which is done 'for' or 'to' the visitor in order that they might understand what messages the museum wishes to put across' (Hooper-Greenhill 1999, p.xi).

In commenting why museums might favour such an approach, Black (2005) suggests three principal reasons, namely: *convenience* based on

institutionalised frameworks of knowledge specialization, objectives of information transmission, and structuring into manageable chunks for display; the *nature of the museum profession* raised on the educational tradition of didacticism, skilled in a particular subject area, and maintained in a system of intellectual power and authority; and the *expectations of the traditional museum audience* based on their own higher education as well as their recognition of and feelings of comfort with the didactic approach.

The latter approach, more evident in The Discovery Museum and The Constructivist Museum (above) sees individuals as active in the learning process by constructing their own meanings and knowledge. In this sense hermeneutic philosophical theory closely follows that of constructivist learning theory by postulating that museum visitors actively construct their own interpretation of what they experience, and that the meaning that they derive from it is based on their existing knowledge, interests, skills, beliefs, values and attitudes which operate as a 'frame of reference' for perception, memory and thinking. In this way, hermeneutics concerns itself with the means by which individuals make sense of the experience such that the individual cyclically interprets the whole in terms of its parts and the present in terms of the past in a continual process of re-consideration and revision of interpreted meaning and knowledge (Hooper-Greenhill 1999). Museums adopting a post-modern position that largely acknowledges this theoretical approach take the view that meaning and knowledge is subject to negotiation between institution and visitor rather than that simply transmitted from the former to the latter.

In the museum context, Hein (1995) considers constructivist pedagogy to be most appropriate as it capitalises on the ability to interact with visitors and supports critical thinking while denying absolute truth. He also contends that it discourages elitism and the belief in a singular correctness, promotes diversity of thought and is aligned with the concepts of inducing social change and allowing personal achievement.

According to Black (2005) a constructivist approach requires curators to present exhibitions in a format appropriate to existing levels of understanding, allowing scaffolding for increasing knowledge and experience, and encouraging

continued interest, attention and motivation in order to construct personal meaning. However, for Meszaros, Gibson and Carter (2011) such subjective meaning-making is not an end in itself. Rather it is the beginning of an interpretive process of critical pedagogy whereby content is made meaningful in order to be critical so that it will be transformative. Such transformation was considered, if not desirable then at least possible, by Dudley (2010, 2012) with respect to the potent influence of museum objects capable of conveying a sense of embodied magic, mystery and excitement.

Despite the apparent compatibility of constructivism with the progressive nature of many museums, Hein (1995) does, however, refer to certain challenges to its adoption, namely:

- focusing on the processes of learning rather than just the content;
- acknowledging that what is presented may not be what is learned;
- recognizing that visitors are not 'wrong' with their interpretations;
- researching visitor interpretations using appropriate qualitative methods;
- and
- judging success through play and willingness to explore and question.

Nevertheless, Jeffery-Clay (1988, p.5) was still moved to state that 'museums may be the perfect environments in which to use constructivist theory and observe meaningful learning'.

### ***Experiential Learning and Museums***

Fundamentally but importantly with respect to the museum context, Falk (2009 p.136) states that '(a)t the simplest level, visitors only can and do remember things they experience. The memories an individual ends up with must, by necessity, be drawn from the possible wealth of experiences a museum visitor has chosen in the museum.'

Interpreting this observation with respect to experiential learning in museums, reference might beneficially be made to Dewey (1938/1975) who presents two principles of particular relevance, namely *continuity* and *interaction*. The former states that 'every experience both takes up something from those which have

gone before and modifies in some way the quality of those which come after' (Dewey 1938/1975, p.35). That is, every experience of an exhibit can be seen as being embedded in a personal and internal continuum of experiences with preceding exhibits and those that follow. The latter term refers to the external condition and states that 'an experience is always what it is because of a transaction taking place between an individual and what, at the time, constitutes his environment.'

With respect to the environment, Dewey is referring not only to the physical surroundings but any other persons, items or activities with which the individual is interacting. In the museum context this might include not only artefacts, exhibitions and interpretive devices but also attendant friends and relatives, other visitors, docents, the exhibition space, light and temperature, surrounding noise and visitor services. Taken together, the two principles suggest the cyclical nature of learning from experience, where action is followed by reflection and thereafter altered action:

In a certain sense every experience should do something to prepare a person for later experiences of a deeper and more expansive quality. That is the very meaning of growth, continuity, reconstruction of experience (Dewey 1938/1975, p.47).

In so saying Dewey (1938/1975) alerts the reader not to sacrifice the attainment of meaning from one experience in the belief that it will eventually emerge at some later time in the sequence of experiences. Rather, he states that 'only by extracting at each present time the full meaning of each present experience are we prepared for doing the same thing in the future' (Dewey 1938/1975, p.49). Such meaning, however, should not be viewed as the prerogative of the subject matter under study. Instead it is the attendant associations, such as attitudes to the learning material, the interest of others and reactions to the physical environment which are also being learned. This would suggest that in the museum context cognitively rich and emotionally memorable experiences should be facilitated through the course of the visit in order to maintain meaningful engagement sufficient in nature and extent for learning to occur.

While Dewey (1938/1975) provides implicit support for the self-directed nature of museum learning with 'its emphasis on the importance of the participation of the learner in the formation of the purposes which direct his activities in the learning process' (p.67), he suggests that it is important to 'procure the postponement of immediate action upon desire until observation and judgement have intervened' (p.69). In this sense he is reinforcing the importance of reflection in the process of learning, leading to a reconstruction of the initial discovery into a deeper and more meaningful form of learning.

In addition to reflection, Dewey (1938/1975, p.73) contends that such meaningful learning requires 'an orderly development toward expansion and organization of subject matter through growth of experience'. That is, the museum must be mindful of the expanding learning needs of the visitor as any initial understanding is further developed, not only through interaction with any particular exhibit, but also with respect to subsequent exhibits through the principal of continuity.

To achieve this Dewey identifies what he refers to as *enquiry learning* whereby each experience presents new problems for subsequent experiences that meet two conditions. The first is that 'the problem grows out of the conditions of the experience being had in the present, and that it is within the range of capacity of the students.' The second is that 'the problem is such that it arouses in the learner an active quest for information and for production of new ideas' (Dewey 1938/1975, p.75). Through the pursuit of such learning enquiry he posits a continuous process in which learning from one experience enables more informed ways of dealing with subsequent experiences according to an 'expanding development of experience.'

In summary, experiential learning proceeds from the assumption that ideas are not fixed and immutable but rather are formed and re-formed through experience. Importantly, as stated by Weil and McGill (1989a, p.27), 'a hallmark that tends to separate experiential learning theorists from the rest is their determination.... to acknowledge the role of affect.' With emotion appearing to play such a notable role in the progression of the visitation experience it is perhaps unsurprising that the very informal self-directed nature

of learning in museums could be said to be appropriately described within the definition of experiential learning.

### **Looking Backward and Forward**

The objective of this chapter was to engage with a selection of discourses that have relevance to a more comprehensive understanding of the nature of learning in general and museum learning in particular.

Accordingly, the discussion was structured according to various themes related to the nature of learning. These began with a number of opposing perspectives including theoretical versus experiential, behaviourism versus cognitivism, and constructivism versus realism. In part, these debates were better informed by recent developments in neuroscience. The important relationship between motivation and learning and between identity and learning were also briefly examined.

Thereafter two pedagogical constructs were discussed, namely learning from experience and experiential learning. More particularly, the writings of Dewey (1938/1975), Hein (1995, 1998), Boud, Cohen and Walker (1993) indicated that experiential learning, with its emphasis on the mutability of ideas continually being formed and re-formed through experience, reflects a circumstance relevant to the self-directed nature of museum learning.

Moreover, the intuitive, imaginative and metaphoric operations of the right hemisphere of the brain suggested a form of experiential learning somewhat different from the concrete representations of traditional theorists.

Furthermore, the necessary involvement of affect in experiential learning was reinforced in the neurological discussion that evidenced the integrated relationship between learning and emotion.

For these reasons experiential learning appears to provide an appropriate epistemological framework with respect to the museum learning experience.

With the importance of emotion as a principal influencing factor in constructing meaningful learning becoming apparent it was considered appropriate to



explore the relevant literature regarding the nature of emotion and the means by which such influence is made manifest.

## CHAPTER 4 : LITERATURE REVIEW PART TWO: A Discourse on Emotion

### Introduction

The objective of this chapter is to examine emotion in greater depth in order that its nature and influence with respect to learning, particularly that related to the museum context, might be fully understood. The chapter is organised according to four sets of ideas.

The first seeks to identify the nature of emotions while the second focuses on the importance of emotion to effective learning. Thereafter, comparative views with respect to the elicitation of emotions are discussed followed by an examination of how emotions are processed and retained with respect to learning, identity and motivation.

### Framing Emotion

#### *Defining Emotion*

The terms affect, feelings, mood and emotion appear without proper definition and hence are often used interchangeably and at times, incorrectly.

According to Zajonc (1980) and Batson (1990), *affect* exhibits the characteristics of *valence* (positive or negative) and *intensity* (weak to strong) and in so doing provides motivational direction for one state of affairs over another. Bagozzi et al. (1999) provide a workable definition for affect by stating it to be 'a general category for mental feeling processes... including emotions, moods and (possibly) attitudes....rather than a particular psychological process, per se' (p.184).

Distinguishing it from affect, Bagozzi et al. (1999) refer to *feelings* as simply experienced sensory impressions. That is, they are the emotional 'colouring' of conscious thoughts that makes perceptions or sensations appear to be either pleasant or unpleasant. Arnold (1970) believed that feelings both accompany all our experiences, both conscious and unconscious, and invariably have an object reference.

*Moods* also provide diffuse valenced background affect although with no object reference. In addition, moods are generally considered to be longer lasting (Ekman 1994) and lower in intensity than an emotion with respect to both the 'lived experience' and physiological changes. Moods are also able to be elicited as the after-effects of emotions or a physical condition (illness, fatigue) as well as side-effects of the environment (heat, noise). Often, however, they emerge from causes that are often unknown or ill-defined by the individual (Isen 1987). They can also assume a 'tone' based on expectations of events in the future, more particularly whether the individual anticipates pleasure or pain (Davidson 1994). Thereby, moods influence the way individuals process information (Isen 2002), experience intrinsic motivation (Isen & Reeve 2005) and develop cognitive processing (Reeve 2009).

In an attempt to classify *emotions*, LeDoux (1996) pointedly reminds us that 'everyone knows what (emotion) is until they are asked to define it' (p.23). Those for whom the task is too difficult tend to offer characteristics as a substitute, such as Clore, Ortony and Foss (1987) who considered emotion to be a valenced affective reaction to perceptions of situations. As such they exclude non-valenced cognitions (for example, interest and surprise), bodily states (for example, sleepiness) and subjective evaluations (for example, feeling abandoned). These elements are comprehensively reflected in a more helpful definition offered by Bagozzi, Gopinath and Nyer (1999, p.184) who view it as:

a mental state of readiness that arises from cognitive appraisals of events or thoughts; has a phenomenological tone; is accompanied by physiological processes; is often expressed physically (eg gestures, posture, facial features); and may result in specific actions to affirm or cope with the emotion, depending on its nature and meaning for the person having it.

Scheff (1997) considers that emotions represent a complex structure not only of feelings but also of cognitive decision-making and action-inducing disposition. Unlike undirected mood, they are typically 'intentional' in that they are directed to a specific reference object or activity. The object may be as concrete as another person or ephemeral as one's conscience; the activity as extroverted as a loving embrace or as introspective as reflecting on one's

feelings. As against moods, emotions have a tendency towards action (Frijda 1993) pertaining to activities in the present rather than in the future. In addition, emotions are experienced in fleeting episodes that have a beginning and an end, both linked to some episode in the environment. Moreover, each emotion has a distinct 'personality' governed by a background of beliefs, attitudes, motivations and goals as well as the individual's psychology and physiology. As a consequence, emotions are characterised by flux, can individually morph into others and can intensify or weaken in response to changing circumstances.

While Bagozzi et al. (1999) define *attitudes* as instances of affect with a close similarity to emotions (both can be pleasant-unpleasant, happy-sad, interested-bored), Crites, Fabrigar and Petty (1994) and Eagly, Mladinic and Otto (1994) consider them to consist of both affective and cognitive dimensions. Cohen and Areni (1991), on the other hand, reserve the term to a narrower definition as *evaluative judgements* (that is, measured by good-bad reactions) outside of the nature of affect. For reasons of differentiating the influence of attitudes from that of emotion, it is this latter definition that will be adopted for the purposes of this study.

While the definitional parameters above suggest a discrete and differentiated relationship between all these various states, it should be remembered that any particular experience can induce an assembly of any or all responses. For example the achievement of a certain task can result in feeling pleasure (positive affect), where such achievement was unexpected (positive emotions) and result in an increased expectation of future positive ramifications (good mood).

### ***Primary versus Secondary Emotions***

When reviewing the nature of emotions the researcher is almost invariably drawn into a consideration of the distinction posited by writers such as Lazarus (1991b) between what are termed *primary* (or basic) and *secondary* (or derived) emotions. Reflecting the findings of Charles Darwin (1809 - 1882) regarding attributes encouraging survival and reproduction, Sillince (1993, p.505) suggests that 'primary emotions are those that are common to all social

animals - like attachments, mating bonds, rivalry, and predator behaviour.' As such, they are deemed to emerge at birth, are consistently found across cultures, and express the survival tasks of the species by protecting it from danger and promoting reproduction, orientation and exploration (Lazarus 1991b).

Despite there being some agreement as to the nature of primary emotions, there appears to be little agreement regarding their identification. While Arnold (1960) developed eleven consisting of anger, aversion, courage, dejection, desire, despair, fear, hate, hope, love and sadness, and Plutchik (1962) listed eight incorporating fear, anger, joy, sadness, acceptance, disgust, expectancy and surprise, Izard (1977) used facial muscle responses to classify ten being interest, enjoyment, surprise, distress, anger, disgust, contempt, fear, shame, and guilt which he measured by way of his *Differentiation Emotions Scale* (DES).

In contrast to such measures Mehrabian and Russell (1974) developed their *PAD* (Pleasure-Arousal-Dominance) scale to capture information regarding the emotional character of an experience rather than defining the actual emotions being experienced. Based on their analysis of 149 experiences that elicited emotions, Havlena, Holbrook and Lehman (1989) found there to be only seven basic emotions, namely joy, acceptance, expectancy, sadness, activation, anger, and fear, which were further reduced by Oatley (1992, p.55) to a mere five: happiness; sadness; fear; anger; and disgust.

Secondary emotions are seen to be a combination of two or more of the primary emotions (Lazarus 1991b). As such they are considered to be more complex, are more likely to be unique to humans, generally emerge after childhood and probably result from our greater cognitive capacities. They include such emotions as *pity* (which requires some degree of empathy for others), *shame* (requiring the recognition between personal or social expectation and acknowledged inappropriate behaviour), guilt, pride, gratitude, nostalgia, regret, envy, anxiety, relief, hope, gratitude, compassion, pride, jealousy, embarrassment and humiliation.

### ***The Importance of Emotion***

Despite the apparent importance of emotion in learning, the area still appears to be under-researched. Boud, Cohen and Walker (1993, p.14) note that 'of all the features that we have mentioned, emotions and feelings are the ones which are most neglected in our society; there is a taboo about them intruding into our educational institutions, particularly at higher levels.'

In large part this appears to be due to the pre-eminence given to reason and reflection as the 'objective' foundations and processes of learning. In addition, cognitive psychology appears to dominate in educational research whilst there often remains the difficulty of extracting the emotional components of learning during the research process. Indeed, all too often, emotions appear to be considered by educators as barriers to 'proper' learning that have to be put aside before learning can occur (Dirkx & Spurgin 1992; Gray & Dirkx 2000). Even the great Plato in the *Phaedrus* considered emotions to be irrational urges that were impediments to both truth and reason (Jaggar 1989). As a result, Paris (1997a, p.23) contends that 'affective reactions may represent a neglected aspect of learning.'

This neglect is unfortunate given that emotions appear to be fundamental to the process of meaning making due to the fact that they inform the individual of the personal, meaningful connections that are being made within an experience (Campbell 1997; Damasio 1994; Jaggar 1989). Seen in reverse, the experiences that induce emotional responses provide the means of deducing the personal connections being made within the individual. In the words of Denzin (1984, p.1) 'To understand who a person is, it is necessary to understand emotion.' It is therefore with good reason that Solomon (2003, p.2) states:

Emotion endows our world with meaning. Gone are the days when emotion was dismissed as unimportant, insignificant, or merely 'irrational'. Some emotions, for example scientific curiosity and a love of the truth, are essential to the advancement of knowledge. Once we begin thinking of emotions in this way... the importance of studying the emotions should become all the more apparent, not just as an intellectual curiosity but also as a practical and personal necessity.

In this regard, the literature provides sufficient research to indicate that emotions play an important role in the leisure experience (Ajzen & Driver 1992; Tinsley & Tinsley 1986). More particularly, they have been shown to be relevant not only in the final selection of leisure behaviour (Mannell 1980) but also in influencing behaviour and cognitions long after leaving the leisure setting (Hull 1990). In addition, they appear to provide a reliable indicator of the quality of leisure as well as one that is sensitive to the dynamic nature of the leisure event (Hull & Michael 1995).

In the museum literature, however, such thinking appears not to be particularly prevalent, with the topic attracting limited academic or professional attention (Falk & Dierking 2004; Kavanagh 2003; Kelly 2003; Silverman 2004). The problem, according to Silverman (1995, p.165), is that such 'personal and subjective ways in which visitors make meaning.... are at best ignored and more often invalidated in museums where they tend to be regarded as naive and inappropriate.'

Where emotion has entered the professional lexicon it appears limited to a polemic regarding the part played by entertainment in museum education (McManus 1993; Roberts 1997). In this regard the traditional attitude can be particularly pejorative with some academics referring to the debate as 'showmanship versus scholarship' (Boyd 1992), thereby reflecting not only an attitude of incompatibility between the 'importance and quality of education' versus 'vacuous and frivolous entertainment' (Falk, Moussouri & Coulson 1998, p.117) but also the belief that worthy and serious topics need to be communicated in scholarly ways (Falk & Dierking 2000). The importance of emotion was further commented on by Chiodo and Rupp (1999, p.20) when they stated:

Exhibit content that acknowledges emotion as part of the story as well as exhibits that allow people to relate to their own emotional experience, can allow visitors to relate to materials in an empathetic or even compassionate way. Providing access to the emotional richness that underlies the objects, experiences or facts of an exhibition can facilitate visitors in making emotional connections thus making the exhibit more engaging, memorable and meaningful to its audience.

### ***Experiencing Emotion***

According to the definitions and discussion provided above, emotions appear as if they exist in some disembodied form that can be examined independent of the individual experiencing them. The fact that such would be discordant with real world experience encouraged Lambie and Marcel (2002) to consider how the content of emotion experience might be distinguished from non-emotion experience and how such experiences are associated with different emotions. In attempting to answer these questions the work of James (1884, 1890/1950), Cannon (1927), Arnold and Gasson (1954), Schachter and Singer (1962), Tomkins (1962), and more recently Mead (1982), Denzin (1984), and Mandler (1984) is instructive.

James (1890/1950) stated his theory as that which 'the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur *is* the emotion (p.1065)...If we fancy some strong emotion, and then try to abstract from our consciousness of it all the feelings of its bodily symptoms, we find we have nothing left behind' (p.1067). In other words, experiencing emotion is nothing more than bodily feelings. Cannon (1927) disagreed, arguing that bodily feelings in and of themselves are 'pale, colourless and destitute of human warmth' (p.121) and not appropriate for creating the essential emotion experience, the job he believed to be that of the brain's thalamus region. Schachter and Singer (1962) also rejected James's theory, arguing that bodily awareness was incapable of distinguishing between different emotion experiences but rather simply recorded an awareness of general arousal. Mandler (1984) expanded on this argument by positing that awareness of the arousal provides the intensity of the emotion experience and that evaluation involves cognitive interpretation of the situation, thereby providing the content and quality of the emotion experience.

Taking a different approach, Tomkins (1962), in his *Facial Feedback Hypothesis*, suggested that emotions are sets of glandular and motor responses located primarily in the face as well as around the body that provide feedback to the brain such that the emotion experience consists of awareness of these facial occurrences. It appears unclear to Izard (1977) whether emotion



experience is a feeling derived from such facial changes or whether the awareness of the facial occurrence actually *is* the emotion experience. Arnold and Gasson (1954) are somewhat clearer with their theory that posits that emotion experience consists of 'the felt tendency toward an object judged suitable, or away from an object judged unsuitable, reinforced by specific bodily changes according to the type of emotion' (p.294) both of which together constitute the emotion experience.

While each of the above-mentioned theories may diverge in part, it appears that they share, either explicitly or implicitly, several similarities regarding the experience of emotion: the involvement of bodily feelings; an arousal of such feelings; and some form of resultant action readiness. These factors combine in some manner to result in an emotion experience whose nature is recognised by the individual experiencing it. As such, Denzin (1984) contends that the meaning of the emotional experience resides not only in the associated emotion-defining word but also in the experience itself. Through its various components of reflection, feeling, cognition and interpretation each emotion is experienced as a unique phenomenon whose meaning lies in the interpretation that the experiencing individual brings to it. Moreover, he suggests that in emotional experience the individual finds and feels their innermost moral feelings which are used as a landscape against which their life experiences are projected, judged, interpreted and evaluated.

Regarding how individuals come to understand the emotional experiences of others, Mead (1982) suggests that they do so by making the other's experiences their own and experience that experience from their own perspective. In so doing, the other's experiences must 'call out' experiences similar to those that the individual has experienced and must be interpreted in terms of those experiences. In that way, Denzin (1984) contends that a shared experience is created, without which one may understand and sympathise with the other's feelings but there will be no vicarious participation. Emotionality is interwoven through the process of understanding another's actions. It provides what he terms the *emotional imagination* that allows individuals to feel and imagine another's feelings so that they became their own. Once there is a body

of shared experience, emotional understanding can emerge and attachment between the parties can proceed.

### **Eliciting Emotion**

There is significant divergence in the literature as to the source of human emotion. The debate that emerges revolves around four broad intellectual debates typically grouped as the Behaviourists, the Cognitivists, the Socioculturalists and the Personality Profilers respectively.

#### *The Behaviourists*

The James-Lang theory (James, 1890/1950) provided the foundation for the behaviourist approach by defining emotions as the perception of physiological disturbances caused by the awareness of events and objects in the environment. While still conceding such a relationship, current biological researchers, however, look for distinctive brain activity rather than physiological activity. For example, Panksepp (1994) argues that emotions emerge as a result of neurological activity and circuitry which, when stimulated, can artificially induce such emotion. Frijda (1986) found that internal psychic stimuli such as thoughts, associations, imaginings and reminiscences, including remembered emotions, were equally influential in eliciting emotion.

Together with the physiology versus neurology discourse is the equally strident debate over the relationship between the respective processing of emotion and cognition. The behaviouralists, such as Deci (1996), argue that after a particular emotion has been aroused, cognitive mediation occurs (in the form of goals, values, attitudes, personal interests, projected consequences and construed meaning) thereby enabling specific behaviour to follow. In other words, emotion energizes and cognition directs. Included in such behaviour is the expression and communication of the emotion, thereby providing an emotional 'identity' for both the action and the subsequent behavioural outcome (Livesey 1986).

### *The Cognitivists*

Cognitivists argue that an emotion will not occur unless there is a preceding cognitive appraisal of an event and that it is this appraisal which is the source of the emotion rather than the event itself (Lazarus 1991a; Ortony & Clore 1989). These evaluations can be either conscious, deliberate and rational or occur rapidly, intuitively and innately (Burns 1998). The critical determinant is that the interpretation occurs as the individual compares the actual state from an imagined preferred state and appraises the event as either facilitating or thwarting that desired state. Through the use of such an approach it is argued that most emotions can be accounted for while subtle combinations of appraisals can result in a broad range of discrete emotions.

Accordingly, emotions are seen to have two particular functions. First they provide information regarding an increased expectation of attaining a goal (positive emotion) or its frustration (negative emotion) (Oatley & Johnson-Laird 1987). Second they amplify the required level of motivation towards the goal (Buck 1988). The advantage of appraisal theory is that it explains how different individuals can have a different emotional reaction to the same significant event due to their different appraisals.

An important codicil to contemporary appraisal theory is raised by Parkinson and Manstead (1992) who argue that most appraisals and their attendant emotional reactions have occurred in the past, and thereby are the subject of learned schemata. Consequently the emotional response evidenced as a result of any particular stimuli is not due to any current cognitive appraisal of the existing 'real world' situation but rather arises from a comparison with remembered information. For this reason children usually exhibit a relatively narrow range of appraisals leading to the more basic emotions, while adults display a wider and more refined number of appraisals resulting in a more diverse range of emotional experiences. Indeed, much of the diversity of emotional experience results from maturing individuals learning the subtle distinctions between such appraisals.

In attempt to resolve the behaviourist/cognitivist debate, Buck (1984) proposes that both viewpoints are correct by virtue of there existing in the body two highly adaptive parallel systems that each initiate and regulate emotion. The limbic system represents the more primitive system that reacts in a behaviourist fashion instantaneously, involuntarily, unconsciously and unreflectively to emotional stimuli through its subcortical pathways. Meanwhile, the more complex system operates through the cortical structures to provide cognitive evaluative, interpretative, conscious and reflective reactions to the same stimuli based on the unique social and cultural conditioning of the individual.

While accepting the two systems concept, Levenson (1994) posits that, rather than operating in parallel, they in fact work together, influencing each other as and when appropriate. Panksepp (1994) took this approach further by suggesting that some emotions (for example, anger, fear, sexual desire) are elicited primarily from the biological system while others (for example, gratitude, hope, sympathy) arise primarily from the cognitive system where personal experience, social conditioning and cultural norms influence both the emotional responses and the behavioural outcomes.

### *The Socioculturalists*

An alternative but perhaps analogous concept to that of the appraisal theory relates to the *social nature of emotions*. For Arnold (1960), emotions involve attitudes of the individual to their social environment. As such, they are aroused as they conform to attitudes pertaining to social situations that are recognised as relevant to the individual's well-being. Without such recognition (appraisal) an emotional reaction will not occur. When the transaction is considered to be non-threatening, acceptable or beneficial then positive emotions are evoked. When the opposite is the case, then negative emotions occur. Because the person-environment relationship is invariably changing as they unfold, so too do the emotions (Plutchik & Kellerman 1980). As such, emotions are considered to both animate and sustain cultural behaviour (Ratner 2007).

### *Personality Profile*

Strydom (1999) suggests that there is a fourth principal antecedent to the elicitation of emotion that one might categorise as *personality profile*. The most important variant is *temperament* being an aspect of the personality concerned with an individual's natural disposition (Reece & Brandt 1996). Because of their specific temperaments (extraversion, introversion, low dominance, high dominance) it was noted that individuals act emotionally different to the same event and use different methods to deal with their emotional responses (Burns 1998).

### **Emotion and Learning**

While the previous section discussed the means by which emotions are elicited the following discusses how emotions are retained in the memory.

#### *Conscious Learning*

Classical conditioning occurs when a neutral stimuli becomes paired with an emotional significant stimuli resulting in the former taking on the characteristics of the latter. Such learning does not create a new emotional response but rather enables new stimuli to act as triggers that are able to activate existing emotional reactions (LeDoux 1992b). The relationship between the neutral and the emotional stimuli can be either external to the individual or internal as in the case where a particular action, for example a parent and child visiting a museum, causes a feeling of embarrassment (parent not being able to answer the child's questions) resulting in a learned negative relationship between the parent and museums (Burns 1998).

Learning undertaken less directly through the intervention of others can also create emotional memory. For the individual this can be in the form of witnessing another's emotional reactions or being told what emotions to experience in a certain situation. The former refers to what Bandura (1977) terms *vicarious learning* and is often evidenced in situations of sporting games where the individual learns appropriate emotions with respect to their own team. The latter the writer calls *symbolic learning* and can be seen to occur

where, for example, a parent's fear of dogs is constantly communicated to the child with the resultant effect that the emotion is passed from one to another (Bandura & Menlove 1968). A similar outcome can occur with respect to the norms, values and beliefs of the society in which the individual resides (Scherer, Wallbott & Summerfield 1986). The attendance or otherwise to such accepted practice, with the resultant social praise or scorn, is associated with emotional reactions respectively related to increased or decreased self-esteem, something that Frijda and Mesquita (1994) refer to as *event coding*.

Emotions can also be learned by way of cognitive processes generalizing stimuli from the particular or by associating one stimuli with another which has already attained an emotional attachment (Frijda 1986). For example a learned fear of dogs may generalise to a fear of all domestic animals. Similarly, fear of one breed of dog may be transferred to another breed with similar appearance. It is interesting to note that such generalised and associated emotional stimuli do not themselves have to be learned. They emerge from general knowledge and cognitive inference from other emotional stimuli that have been learned (Frijda 1986).

In summary, whether an emotional response is learned under any of the above-mentioned circumstances is usually conditional on the nature of the stimuli, the propensities of the individual and the influence of their society. The nature of any resultant emotion in terms of its *intensity* and *duration* depends on a number of variables. According to Burns (1998) the former is influenced by the perceived importance of the eliciting event, the likelihood of it occurring, the degree of anticipation and uncertainty, the individual's control over the outcome and the number of times the event has been experienced. The duration that an emotion is experienced, according to Gilboa and Revelle (1994), depends on the degree that the individual ruminates on the eliciting event. In this regard, the writers found that individuals tend to ruminate five times longer over events that are expected to be negative as against those that are expected to be positive.

### *Unconscious Learning*

Thus far, the learning of emotions has been discussed as consciously remembered phenomena. However, it is now believed that emotion can be learned at the unconscious level of experience with an ability to influence current mental and bodily reactions (Denzin 1984; Dirkx 2001; Lupton 1998).

Despite not being remembered, the feelings associated with past thoughts, actions and experiences can subconsciously and significantly influence current behaviour and emotional states (Reece & Brandt 1996). Individuals often find themselves feeling strongly about something or toward someone without really knowing or understanding why or from whence the feelings arose (Chodorow 1999). In certain situations the content of the subconscious may even conflict with conscious thoughts, what Clark and Dirkx (2000) refer to as the *multiple voices* that each claim a different sense of reality, potentially resulting in feelings of discomfort and frustration. The answer to the obvious question regarding the benefit of such a system of which the individual is unaware appears to reside in the operation of other biological functions (for example, breathing) at an unconscious level. Such unconscious operations allow the individual's attention to concern itself with other more pressing issues or until there is a need for conscious intervention (Goodale & Milner 2004).

An emotion may also go undetected by the individual's consciousness due to the weakness or brevity of its signal (Enns & Di Lollo 2000) or the brain's inability to interpret a number of simultaneously demanding and competing stimuli (Crick & Koch 2003). Alternatively, the input may be strong but inconsistent with expectations and hence escape emotional processing (Simons & Chabris 1999) or it might not make sense in the current situation (Dennett 1991/1993). Finally unconscious emotions may be associated with the schemas of self identity laid down in the early years of development and hence not consciously remembered (Epstein 1973).

But unconsciously retained emotions need not forever remain so. Jung (quoted in Chodorow 1997) suggested that individuals can connect with such deep unconscious emotional memories through images that lie behind the emotion. As suggested by Whitmont (1969, p.74) 'Images may appear spontaneously

when inner or outer events which are particularly stark, threatening or powerful must be faced.' It is these images which, according to Denzin (1984), illuminate emotionality, the self and meaningful connections within an experience such that the individual is able to make sense of themselves, their relationship with others, and the world they inhabit.

### **Emotion and Identity**

Of particular importance to the issue of learning is the role that emotions play in shaping a sense of self. According to Falk and Dierking (2000), emotionally-rich learning involves, at its most basic level, an affirmation of self. Dirkx (2001, p.63) went even further by contending that 'personally significant and meaningful learning is fundamentally grounded in, and is derived from, the adult's emotional, imaginative connection with the self and with the broader social world.'

James (1890/1950) believed that emotions arise as a result of the individual's evaluation of self with the resultant self-esteem determined by the discrepancy between accomplishment and aspiration. The concept of identity coherence was emphasised by Rogers (1951) who posited that individuals construct their own self which, when enhanced, is associated with positive emotions and when threatened give rise to negative emotions.

Erikson (1959) contributed to an understanding of the relationship by determining that any threats to identity and self-esteem cause emotional distress while the opposite is the cause for circumstances of identity reinforcement. The issue of self-esteem was considered so important to Kohut (1971) that on it was deemed to rest the stability of the whole self-structure and from it emerged all positive and negative emotions.

As against the theories noted above, which are heavily weighted in favour of emotional and motivational influences, the emergence of social-cognitive theorists (for example, Kelly 1955) resulted in envisaging the self as a strictly cognitive system that organises life events by way of *self-relevant schemas* that define oneself to oneself. Thereafter emotions were introduced into the models to deal with or reduce the discrepancies found in such schemas



(Higgins 1987). For example, the discrepancy between actual and ideal selves was seen to lead to dejection-related emotions such as disappointment, dissatisfaction and sadness. Later social-cognitive research performed by the likes of Bargh (1990) established that the self-relevant schemas are processed automatically in the absence of conscious awareness, a finding that suggests that individuals may have different views about themselves at different levels of awareness.

A different direction again was suggested by Epstein (1991a, 1991b) who posited an integrated system between the cognitive and emotional aspects of self in his *Cognitive-Experiential Self Theory* (CEST). Unlike other self-concept theories CEST assumes a double cognitive system including a *rational system* that operates consciously and analytically and is relatively affect free plus an *experiential system* which operates pre-consciously and intuitively mediated by emotions and subtler feelings that the writer refers to as *vibes*. As such, emotions provide a means of inferring an individual's schemas in their experiential system while intensity of such emotion reflects the significance of the schema. By noting the events that trigger emotions one can therefore infer the relative significant schemas in an individual's self-concept. Similarly, emotions can evidence schemas through recognition of cognitions that underlie them.

With the CEST structure Epstein believed that he had formulated a realistic interpretation of self. However, a number of alternative models have been developed that define identity and associated emotion in a more autobiographical and narrative manner (Bruner 1990; Labouvie-Vief, Orwell & Manion 1995; McAdams 1993). Such narratives provide the individual with established mental constructs by which to view external events and internal choices in order to give their lives a sense of unity and purpose (Lewis and Ferrari 2001). In this sense, emotions make identity narratives compelling and are central to their creation (Haviland & Kahlbaugh 1993).

An alternative theory linking self with emotion is termed the *Affective Control Theory* (ACT) together with its associated concept of *Situated Self Identity* (SSI). According to the notion that identity takes multiple roles in contemporary

society, Lee and Shafer (2002) propose that an individual enters each environment with a reasonable understanding about the setting and seeks to establish a situated self-identity (SSI) within it. This gives rise to a number of initial affective meanings of who they are in that setting which they term *fundamental sentiments*. When an event occurs, temporary affective meanings (so-called *transient sentiments*) result, which may or may not differ from the fundamental sentiments. Any difference that does occur is referred to as a *deflection* which, if of sufficient magnitude, results in the individual attempting to initiate some form of cognitive revisions in order to re-establish alignment. It is this attempted means of control which gives ACT its name.

Finally, with respect to the relationship between emotion, learning and self, reference should be made to a particular class of conscious emotions termed *self-reflective* or *self-evaluative*. These include the likes of shame, guilt, embarrassment and pride. Tangney (2003) considers these to be the emotions of self-regulation by which the self learns about its own thoughts, intentions and behaviour as well as makes judgements with reference to moral standards, personal expectations and social conventions.

### **Emotion and Motivation**

While some of the literature suggests that emotions constitute one type of motive, other writers contend that they constitute the primary motivational system (Izard 1991; Tomkins 1984). Regardless, it might reasonably be said that emotions record the ever-changing motivational states of the individual (Buck 1988). This is indeed fortunate, for while emotions are often evident from the appearance and behaviour of the individual, motivation itself is more difficult to discern. Not only is it usually private and unobserved by the outside world, it is often below the threshold of consciousness and hence remains unrecognised by the individual concerned.

Whether externally observed or not, the source of all motivation, and the emotion which accompanies it, is the embodied brain (Gray, Braver & Raichle 2002). In general terms everyday events cause particular brain structures to be stimulated. Of particular importance to emotion and motivation is the amygdala,

meaning 'almond-shaped'. Stimulation of this area by emotionally significant events is capable of not only causing negative emotions (Bandler 1988) and positive emotions (Baxter & Murray 2002) but also perceiving the emotions of others (LeDoux, Romanski & Xagoraris 1989). Through its involvement the brain not only encourages such reactions to occur but 'learns' the emotional reaction for similar environmental stimuli (Aggleton 1992).

The neurological structure that encourages such storage and retrieval of emotional information is described by Damasio (1994, 1999) by way of his *Somatic Marker Hypothesis* (SMH). The SMH predicts that when an individual experiences a novel event that induces an emotional response an emotional evaluation of that event will be retained in the form of a somatic marker which will be re-created should the event re-occur. This guides the individual to make an appropriate response based on the emotions that were experienced previously. Moreover, the stronger the marker (that is, the emotional intensity), the stronger will be the cognitive learning (Carter & Pasqualini 2004). When recalled, the information is re-constructed through complex re-activation and re-construction processes that bring together all of the components of the information, including the sensual, emotional, interpretive and meaningful, which were part of the previous experience and binds them together across neural networks (Crick & Koch 1990).

Such messaging between neural networks is performed by neurotransmitters in the nervous system and hormones in the endocrine system (between glands and bodily organs). Different brain structures have receptor sites that, when stimulated by these agents, give rise to different motivational states and emotional reactions (Reeve 2009). Of these agents, dopamine plays the most important role in terms of understanding motivation and emotion. It is this neurotransmitter that regulates the good feelings associated the expectation of pleasure or reward which in turn induce enhanced cognitive functioning such as creativity and improved problem solving (Ashby, Isen & Turken 1999). Where the outcome of an event is better than that which was anticipated, an increased level of dopamine records the fact. When the opposite occurs then a decreased dopamine level serves as information that the particular course of

action chosen was disappointing as against its expectation (Montague, Dayan & Sejnowski 1996).

Interestingly, it is not the actual doing of the activity and gaining of any reward that causes the emotion feeling resulting from the release of dopamine. Rather it is the expectation of the reward (Mirenowicz & Schultz 1994). Hence it is dopamine that is associated with preparatory phases of motivated behaviour such as the heightened attention given to a particular museum exhibit. Dopamine also 'teaches' the individual what events can be expected to be rewarding (by way of past experience). While an event must be viewed as potentially rewarding, in which case dopamine will continue to be released (Beninger 1983), it is the event itself that provides the reinforcement having been found to cause feelings of pleasure.

In summary, what is important from the discussion of emotions, motivation and associated neurological research is the awareness of their interconnectivity and the importance of the brain's chemical systems in delivering learned behaviour. Principally, only that information which makes a strong impact, either through powerful emotional connections or the significance of the meaningful links that the individual constructs, survives to be stored into memory. The greater the contribution to meaning, the stronger the memory trace will be (Boitano 1996; Haberlandt 1998; Kupfermann & Kandel 1995). In the previous chapter the focus for learning was on cognition. Now we see the close inter-relationship between learning and emotion.

### **Looking Backward and Forward**

Having identified the involvement of emotions in the process of learning in the previous chapter, the objective of this chapter was to define their nature, determine their importance, discuss their elicitation and examine their processing and retention.

It was argued that emotions, contrary to being seen by some in the museum sector as incompatible with the importance and quality of education, are in fact critical to meaning-making, and hence learning, particularly in self-directed environments. Moreover, emotion was found to be intimately involved in the

formation and/or affirmation of the self of the learner which was deemed to be fundamental to significant and meaningful learning. While their elicitation may still be debated, recent findings in the field of neuroscience have shed light not only the means by which emotions are processed but, more importantly in terms of this study, the relationship between retained learning and the intensity and duration of experienced emotion.

Such findings are relevant to the discussion in chapter two that proposed the principal mandate of museums to be the facilitation of visitor learning. They are also relevant to chapter three that suggested that experiential learning, with its emphasis on reflection, emotion and constructivism, provides an appropriate model for such learning as concepts are formed and re-formed during the visitation experience.

As a result of such discussions the nature of self-directed learning in the museum context became more evident. More particularly, the discourse on learning provided a theoretical and empirical examination of the various factors influencing the process in general and with respect to museum settings in particular.

While the following chapter provided an exploration of the nature of emotion it did so within the necessary confines of the literature which, while comprehensive, lacked substantial empirical evidence of the relationship between learning and emotion in the context of museums. More particularly, the review exposed a dearth of empirical understanding as to the fundamental nature of that relationship. In addition there emerged a lack of understanding of the means by which meaning was made by visitors during the experience. In the parlance used in chapter one, while researchers typically attempt to determine factors peripheral to, and outcomes emerging from, museum visitation, the 'black box' of the learning experience itself remains largely unexamined. The following chapter proposes a methodological approach to investigate the essential structure of that experience.

## **CHAPTER 5 : INVESTIGATING THE PROBLEM**

### **Introduction**

The philosophical and methodological direction for the remainder of the study has been primarily influenced by the discourses on museums, learning and emotion examined in the previous four chapters.

This chapter establishes the methodological foundation for answering the central research question regarding the essence of the learning experience as well as the four sub-questions related to the essential structure of the experience, its constituent elements, the means by which meaning is created by the visitor, and the key marketing and management implications. It provides a rationale for the approach selected and documents the techniques used in the three studies that constitute the empirical component of the study.

To begin with, the methods more commonly used by previous researchers are examined, firstly with respect to learning in the museum context and secondly regarding the investigation of emotions. This is followed by a brief commentary on qualitative research followed by a more in-depth examination of the various methods and procedures used in each of the empirical stages of the study.

### **Investigating Learning: Consideration of Methods**

Typically, museum learning has been measured by determining discrete items of information immediately after visitors have viewed an exhibition (Hein 1998; Roschelle 1995). However, Falk and Dierking (2000) consider such measurements to be generally unsuccessful as visitors tend to miss items upon which they are subsequently tested; provide variable responses due to the dependence of new learning on prior knowledge; and rely on later reinforcing experiences to consolidate their learning.

An earlier alternative approach was used by Linn and Laetsch (1976) to analyse how respondents carried out learning-based activities rather than determining learning outcomes. Similarly, Borun, Chambers and Cleghorn (1996) examined behaviour that indicated engagement with specific exhibits,

while later Griffin (2002) used video recordings to arrive at a set of specific indicators of engagement in social and learning processes. In particular, she showed that museum visitors are actively involved in their own learning, form cognitive connections with exhibits that they tend to exchange with accompanying others, and generally respond favourably to new information.

Rather than investigating behaviour, Hooper-Greenhill and Moussouri (2001) had visitors 'think aloud' about what they saw, thought and felt to a researcher who accompanied them on their tour, with their conversations being recorded via lapel microphones.

The emphasis on such 'learning talk' was further explored by Allen (2002) using a variation of the Hooper-Greenhill and Moussouri (2001) method. Also using lapel microphones, Allen (2002) sought to determine and categorise the nature of real time experiences when learning new information or collaborative meaning-making seemed, from the conversations of couples, to be occurring. The difficulty of knowing what respondents were looking at was overcome by having a co-researcher follow the respondents and record their behaviour via a radio microphone transmitting to their machines but with a separate recording track. This system provided subsequent synchronicity between the respondents' conversations, the exhibits examined and the co-researcher's comments. While conceding that this approach was difficult in terms of execution and analysis, Allen considered it successful in terms of bringing the researcher directly into the learning experience.

A more in-depth approach was used by Fienberg and Leinhardt (2002) who recorded participant conversations during their museum tour as well as interviewing them before and after their visit. During the tour participants were accompanied by one researcher while another followed, taking field notes en route, recording particular behaviour and timing exhibit stops. While this method offered the advantage of more comprehensive data collection it suffered somewhat from having in-tour conversations influenced by the presence of the researchers.

An analogous but somewhat more technically complex method was used by Leinhardt, Knutson and Crowley (2003) who equipped visitors with minidisks and wireless microphones in order to record, without interruption, their museum tour conversations. By digitally marking the minidisks to correspond to visitor activities noted by an observer, the researchers were able to link the record of the conversations with the context in which they were happening. Again, this provided comprehensive data upon which the visits could be further analysed and described.

The principal implication from the above studies is that research design in such informal settings needs to be cognizant of the non-directional, exploratory, voluntary and personal nature of the learning that occurs. Moreover, there is the need for researchers to be able to accommodate multiple outcomes resulting from the different agendas and motivations for visitation as well as the differing nature of the visitation experience. In this regard, Hein (1991, p.201) argues that 'in order to understand the museum visitors and find out what they have learned, we need a broad approach to museum evaluation which includes a rich infusion of qualitative, naturalistic research.'

More specifically, Rennie and Johnston (2004) and Rennie and Williams (2002) suggest that it is preferable to investigate holistic changes in attitude, such as altered values or opinions rather than the acquisition of discrete items of information. To this Falk and Dierking (2000) add that as most measurement appears to be largely based on major changes in pre-existing knowledge and attitudes, research should be reconfigured in order to take account of the more subtle variations that researchers evidence. They also contend that data should be collected before, during and after the visit in a way that reflects the temporal nature of museum learning reflected in their Contextual Model of Learning discussed in chapter three.

To provide a means for doing so, Falk (2002) developed a variant of concept mind-mapping that he terms *Personal Meaning Mapping* (PMM). This was designed in response to the traditional Positivist-Behaviourist models of learning (chapter three) which not only assume that learning involves large changes in mental schemata but also that all learners begin with no knowledge



and end with 'correct' knowledge transferred from an 'accepted expert'. If, as Falk (2002) suggests, most learning psychologists believe this model to be flawed in terms of the way learning in self-directed environments actually occurs then so too, he suggests, must be the measurement of such learning.

PMM, on the other hand, is based on the Relativist-Constructivist approach introduced in chapter three. It is characterised by the belief that the combination of prior and new experience not only results in learning that is highly personal but also takes into account the degree of variability in learning experience and learning outcomes. As such, it seeks to understand the nature (through qualitative techniques) and extent (through quantitative techniques) of a specified learned experience as it affects each individual's conceptual, attitudinal and emotional understanding. As argued by Falk (2002):

A major benefit of the PMM data set is the ability to look deeply at how individuals changed as a consequence of their educational experience - in other words, to understand the meaning each individual takes out of the educational experience.

The acknowledged disadvantages of the technique include the analysis time and skill required by researchers plus the time and effort required of respondents. Nevertheless, it offers an approach that reflects much of what has been shown in the literature to be the nature of constructivist meaningful learning and as such has been incorporated as a research method in this study.

### **Investigating Emotion: Consideration of Methods**

Research into emotional experience is problematic due in no small part to the differing underlying theories of emotion. From such theories emerge varying means of identifying and measuring emotions including evaluative appraisals, subjective feelings, body gestures, facial expressions, physiological responses, action tendencies and neuro-chemical changes.

Appraisal theorists generally consider emotions as mental states or processes and hence seek to directly measure the cognitive activities comprising these states often through self-reports of subjective experiences. Alternatively, those

who interpret emotions more broadly, either in terms of the whole process from coding to action (Frijda 1986) or complex patterns of physiological responses (Cacioppo, Berntson & Klein 1992), consider that measurement processes which go beyond such self-reports (for example, overt behaviours or physiological reactions) are more appropriate. Others, particularly those in the advertising field (Bagozzi 1991), use physiological methods of measurement such as galvanic skin response, pupil dilation or electroencephalograph recordings, despite the protestations of Stayman and Aaker (1993) that such methods are both difficult to administer and do not distinguish between specific emotions.

In addition to the issue of appropriate measurement systems, much work has been directed at the development of measurement scales. One of the earlier attempts at codifying emotions resulted in the three-factor model of pleasure, arousal and dominance, otherwise referred to as the PAD scale, developed by Russell and Mehrabian (1977). Thereafter, a more comprehensive list of 52-items was assembled by Edell and Burke (1987) while Holbrook and Batra (1987) proposed a 94-item scale.

Another measurement issue receiving considerable debate relates to whether emotions are unipolar or bipolar. In support of the former, several studies (Bradburn 1969; Cacioppo & Berntson 1994; Diener & Emmons 1985) showed that pleasant and unpleasant emotions are independent of each other and hence can be experienced at the same time. The resultant unipolar position was supported by Bagozzi, Gopinath and Nyer (1999) who recommend asking respondents to express what particular emotions best describe their subjective feelings. Barrett and Russell (1998), on the other hand, argue that their findings demonstrate the bipolarity of emotions such that one can be either happy or sad but not both simultaneously. However, such findings were put in doubt by Larsen, McGraw and Cacioppo (2001) who showed that respondents could indeed feel happy and sad at the same time.

Regardless of the theoretical framework or measurement scale adopted and whatever decision on polarity might be made, the researcher is still left with the issue of identifying, clarifying and measuring the relevant emotions influencing

the as-lived experience of the museum visitor. In this regard one should be mindful of the comments of Csikszentmihalyi (1975, p.xix) who notes that he:

felt dissatisfied with the usual tools that psychologists relied on to gain access to people's experiences, such as interviews and questionnaires. When people try to recall how it felt to climb a mountain or play a great musical performance, their stories are usually stereotyped and un insightful...(while) experiences reconstructed in recollection might be inadvertently distorted. Therefore I was looking for a method that would capture the experience as it occurred, when it was fresh in the mind.

As a response, Csikszentmihalyi (1975) developed the *experience sampling method* (ESM) that provided the opportunity for respondents to describe their behaviour, thoughts and feelings while they were occurring. Using this method, respondents were contacted by means of an electronic pager at unexpected moments during the day in order to record their descriptions. Whilst it might be argued to be a somewhat interventionist approach, the researcher appeared satisfied that it provided a quality of emotional data not available through less immediate methods.

In a similar vein, Lee, Dattilo and Howard (1994) used a combination of a *self-initiated-tape-recording-method* (SITRM) to measure immediately recalled leisure experiences plus in-depth interviews to help interpret the SITRM data. Whilst these methods might offer reliability of timely reportage they do, however, appear to be limited by virtue of the interjection into the experience which may, as a consequence, change its nature.

On determining the reliability of as-lived reporting of emotional experience versus remembered emotional self-report, Robinson and Clore (2002) found that there is often a discrepancy between reports of feelings currently being experienced and those that are currently not being experienced. The researchers found that such discrepancies arose initially from lapses and altered memories and increasingly thereafter from knowledge regarding one's emotions; for example how respondents believed they would feel given certain circumstances, how emotional they believed themselves to be, and how emotional social situations allowed them to be. As a consequence, the researchers considered it important to record the lived emotion as soon as possible after it is experienced in order to minimise such distortion.

In assessing the reliability of retrospective ratings of emotional experience the evidence in the literature appears somewhat contradictory. While Hedges, Jandorf and Stone (1985) suggest that the most intense ('peak') momentary emotional experience determines overall recall-based ratings of emotion, Parkinson et al. (1995) contend that it is the average of such experiences that is more influential. Similarly, while some researchers argue for the primacy of final emotions in retrospective emotion ratings (Holmberg & Holmes 1994) others support a combination of the most intense and the final moments of extended affective episodes as proxies for making retrospective affective judgements (Fredrickson & Kahneman 1993).

In the museum setting, attempts to determine emotional responses have generally been associated with wider questions related to the nature and extent of learning. Hooper-Greenhill and Moussouri (2001) (noted above) used their technique of visitors 'thinking aloud' to record not only what they saw and thought but also what they felt about exhibits. During their tour respondents were accompanied by the researcher who probed for clarifications and elaborations regarding such felt emotions as considered necessary.

In her research, Allen (2002) also used respondent recordings to determine whether there were any examples of 'affective talk' particularly pleasure, displeasure and intrigue. However, the researcher conceded that, despite the prevalence of affective learning-talk words, such measures were 'crude indicators of the affective impact of an exhibition' (Allen 2002, p. 277). Nevertheless, an approach that sought to determine the broadest texture of emotional response as near as possible to its being experienced was considered to be of principal benefit and as such has been incorporated as a research method in this study.

### **Issues for Consideration**

Given the above discussion, a number of guiding principles for the investigation were arrived at, namely:

- Research into museum learning should aim to capture its holistic, unstructured and unpredictable nature;

- Research should take into account the state of existing visitor knowledge as well as variations to that knowledge;
- Conversations between participants during their tour are an important means of evidencing such changes in knowledge;
- Experience should be viewed through the consciousness of the visitor in order to comprehensively understand the nature of the visit;
- Research methods should not be overly intrusive, thereby altering the respondent's natural behaviour, as well as being too prescriptive or constrictive, thereby limiting the inherent flexibility of the learning context;
- In order to achieve an appropriate degree of integrity with respect to the breadth of experiential outcomes, a number of research methods should be used;
- While visitor experiences should be elicited before they are modified or forgotten, the research should also account for subsequent reflection by participants; and
- In the absence of existing data on the essential process of museum learning the research approach envisaged necessarily needs to be evolutionary in terms of methods and iterative in terms of utilizing the outcomes thereby produced.

Such guidelines will now be considered within the overall context of the study.

## **Research Approach**

### ***Introduction***

Historically, museum research has been generally quantitative in nature. Kelly (1999) reports that one such study was undertaken as early as 1916 by Benjamin Gilman examining the issue of 'museum fatigue'. Thereafter, the field continued to grow as museum management and educationalists sought to determine how successfully their institutions were fulfilling their role of public education. Kelly (1999, p.2) continues by noting that:

To date most educational research has used and continues to be based in a scientific epistemology; research is largely experimental and based on

hypothesis testing of relationships between a set or sets of variables, of which some are manipulated in experimental settings. Quantitative, or 'scientific' methods came to be widely recognized and viewed...as the predominant and accepted way of measuring learning outcomes.

Such measures have the advantage of providing the opportunity for statistical analysis, defining measurable differences between visitor variables (such as age, socio-demographic groupings, visiting patterns), extrapolating results to the wider population and collecting trend data across various exhibition/marketing initiatives (Kelly 1999). While they have indeed proved worthwhile these measures do not appear, however, to adequately reflect the trend towards constructivism nor provide a sensitivity of information needed to gain insights into meanings that respondents make during their museum visits. In addition, they are unable to accommodate the flexibility of approach often required in museum research where variations in methodology mid-study become more desirable than mere scientific orthodoxy. But above all else, they struggle to fully explore the complexities, intricacies and nuances of the visitor experience.

Qualitative research, on the other hand, eschews the scientific approach of prediction, control and explanation with more interpretive notions of understanding, meaning and action (Carr & Kemmis 1986). Through recounting their museum experience in their own words, participants have the ability to expand on their thoughts and feelings in terms that reveal richness, complexity and potentially hidden truth - what Eisner (1991, p.15) describes as 'getting below the surface to that most enigmatic aspect of the human condition: the construction of meaning'.

Given the nature of the research questions posed and the potential richness of the resultant data, it was determined that a qualitative approach would be adopted for this study.

### ***Qualitative Research***

Van Maanen (1983, p.9) describes qualitative methods as a term covering a number of interpretive techniques that 'describe, decode, translate, and

otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world.'

Qualitative research involves the researcher investigating the lived experiences of others, identifying issues from their perspective free from pre-determined conceptual categories, and understanding the meanings and interpretations that they attach to such experiences (Bogdan & Biklen 1982). Such is often referred to as the inside or *emic* perspective as distinct from the *etic* or outsider's perspective (Creswell 1998). According to Marshall and Rossman (1999, p.57), qualitative methodology is particularly relevant 'for a study focusing on individual's lived experience...(O)ne cannot understand human actions without understanding the meaning that participants attribute to these actions - their thoughts, feelings, beliefs, values, and assumptive worlds; the researcher, therefore, needs to understand the deeper perspectives captured through face-to-face interaction.'

Eisner (1991) identifies six features of qualitative research. First, such studies tend to be conducted with a life situation that Lincoln and Guba (1985) refer to as 'naturalistic'. Second, they use the self 'as the instrument that engages with the situation and makes sense of it' (Eisner 1991, p.34). Third, in qualitative research meaning matters, as well as 'the quality of experience undergone by those in the situation studied' (Eisner 1991, p.35). Fourth, there is 'the use of expressive language and the presence of voice in the text' (Eisner 1991, p.36). Fifth is the attention to the detail, rather than the loss of particulars that can be the result of statistical manipulations. And finally sixth, Eisner (1991) states that 'qualitative research becomes believable because of its coherence, insight and instrumental utility' (p.39) and persuades, not through the strength of statistical connections, but rather it 'persuade(s) by reason' (p.39).

In the museum context, Patton (1980, p.28) contends that qualitative research has the advantage of 'allowing us to obtain insights into meanings that people make of their museum experiences - in their own words - with lots of rich data that can be used to illustrate points about the research outcomes'. In addition, Miles and Huberman (1994) suggest that qualitative methods allow us to see that which is embedded within the context of the data that describe it fully and

deeply in order to construct meaning. That is, they have a strong potential for revealing complexity but at the same time are inherently flexible so that methods can be varied as a study proceeds.

In terms of qualitative research there are four major traditions of inquiry: iterative (or hermeneutic), subjective, investigative and enumerative. The first involves seeking meaning through repeated collection and analysis of data using increasingly refined methods until the researcher is satisfied that no new information is forthcoming; what Grbich (2007) refers to as the *recursive spiral*.

The subjective approach, on the other hand, is defined by a focus on the experiences of the researcher thereby recognizing their inherent biases and judgements. The investigative approach involves examining language particularly signs and symbols embedded within their cultural contexts. Finally, the enumerative approach involves 'objectively' classifying items in verbal, written or visual text according to some form of quantitative analysis as well as seeking connections between causes and antecedents.

Given the focus of this study, the iterative approach was considered the most appropriate. As a consequence, different methods were used and evaluated in terms of their ability to explain the experience and add rigor to the overall investigation.

## **Approaching the Inquiry**

### ***Overview***

The approach taken in this study was an 'emergent construction' where 'The choice of which tools to use, which research practices to employ is not set in advance' (Denzin & Lincoln 1994, p.2) but rather evolves as the study progresses.

As such, the investigation progressed through three separate but interrelated phases that together formed a broadly ethnographic study. These included the Pilot Study and Stages One and Two of the Main Study. In this process varying techniques were used and assessed according to their effectiveness as the



project unfolded (Schatzman & Strauss 1973). The final form of the research design is summarised in Table 5-1 below.

Table 5-1 Summary of Research Processes and Methods

STAGE	VENUE	RESPONDENTS	METHOD	DATA ANALYSIS
Pilot Study	Australian Museum	3 males 5 females	Personal Meaning Maps (PMM) - pre and post visit Observation Audio Recording - during visit PMM Interviews - pre and post visit	Data Coding (NVivo) Meaning Map Analysis Textual Analysis
Main Study Stage One	Australian War Memorial National Museum of Australia	7 males 13 females	Personal Meaning Maps (PMM) - pre, post and 48 hour post visit Audio Recording - during visit In-Depth Interviews - retour PMM Interviews - pre, post and 48 hour post visit	Data Coding (NVivo) Meaning Map Analysis Textual Analysis
Main Study Stage Two	Australian War Memorial National Museum of Australia	8 males 8 females	Audio Recording - retour	Data Coding (manual) Textual Analysis

The following provides an overview and rationale for the methods noted above.

### ***Personal Meaning Mapping***

Personal Meaning Mapping (PMM) seeks to explore the learning known to occur in museums, that is, one that involves relationships, connections and patterns built on previous experiences (Lucas 1993). Unlike traditional forms of enquiry, it does not assume that learning necessarily involves visitors starting with limited knowledge and experience and ending at a similar place of directed knowledge based upon a consistent curatorial message. Rather, the combination of prior experience and new experience results in learning which is unique for the individual and situated within the context in which it was learned.

Following the procedure outlined by Falk (2002), the PMM process involves each participant writing an agreed cueing word or topic heading in the middle of a blank piece of paper and then with one colour of pen connecting the heading with any number of related top-of-mind concepts, ideas, images, phrases, and thoughts. The researcher then encourages the participant to write an elaboration of each concept onto the same paper using another colour of pen. After completing their museum visit each participant is asked to return to the paper and, with a third colour of pen, add, delete or modify any of the concepts. They are then asked to elaborate on each of the added/modified concepts by using a fourth coloured pen. In order to record the results of any additional reflection sometime after the visit another opportunity to vary the maps is suggested using a fifth colour of pen.

As per the Falk (2002) model, and in order to gain further insight into the various concepts experienced, recorded interviews are conducted by the researcher immediately following completion of the pre-visit and post-visit mind-maps. While the maps elicit unprompted thoughts, such interviews are designed to elicit prompted responses according to the focus of the research and the interests of the researcher. In addition, another map and attendant interview can be completed sometime after the visit in order to test retained learning.

The degree of learning is assessed according to changes across four dimensions, namely *Extent* (the number of words/phrases used by each respondent), *Breadth* (the change in the quantity of appropriate concepts used), *Depth* (change in the richness of each of the concepts described) and *Mastery* (change in the holistic understanding of the topic).

While the Falk (2002) model allows such dimensions to be quantified using various statistical techniques, such analysis was not considered appropriate in this study given its exclusively qualitative methodology and the nature of its central research question regarding a determination of the essence of the learning experience. Rather, the approach used here considers textual changes with judgements being made as to the nature of such changes using nuances of language in lieu of attempting to quantify the degree of the change.

As such, a qualitative application of the PMM model was deemed to provide this study with a singularly valuable means of determining changes in the mental scaffolding of what might be termed participants' 'structures of understanding'.

By subjecting the modifying personal meaning maps to intensive and repeated scrutiny using qualitative interrogative techniques it was considered possible to analytically examine and progressively follow how knowledge and understanding, the meanings synthesised by participants, changed as a result of the experience.

### ***In-Depth Interviews***

In terms of qualitative data gathering, Marshall and Rossman (1999, p.61) state that 'A study focusing on the individual lived experience typically relies on an *in-depth interview strategy*... the primary strategy is to capture the deep meaning of experience in their own words' (italics in text). Accordingly, Marshall and Rossman (2011, p.168) suggest that in-depth interviewing offers the principal strengths of face-to-face interaction that is both flexible and capable of collecting a large amount of data regarding personal experiences relatively quickly. In addition the method is useful for describing and immediately probing complex interactions as well as being able to be efficiently administered and managed.

While the method depends on the openness and honesty of participants and may involve possible misinterpretation of participant responses, the process of in-depth interviewing was deemed particularly appropriate for the 'retour' stage of the research (noted below).

### ***Audio Recording***

While most experiential measures require some degree of self-report and/or retrospective rating, examples of momentary reports have been seen to provide valuable information relatively unaffected by later memory loss or modification (Csikszentmihalyi 1975; Lee, Dattilo & Howard 1994; Robinson & Clore 2002). In the museum context, Hooper-Greenhill and Moussouri (2001),

Allen (2002), Fienberg and Leinhardt (2002) and Leinhardt, Knutson and Crowley (2003) found that such real-time reporting successfully brought the researcher directly into the experience including the emotions being experienced. While it should be noted that momentary reports record only what participants are willing and able to represent at the time of conscious awareness and hence say nothing about later elaboration or clarification, it was decided that such reporting best 'captured' the nature of the visit as it was being experienced and would therefore be used for this study.

As described in the following chapter, the initial means of recording conversations between pairs of participants was by way of a specially-designed mobile phone connection between researcher and participants. When this proved unworkable the sole means of recording the conversations was by way of portable cassette voice recorders and lapel microphones. This system provided not only simplicity, efficiency and effectiveness of data recording but also ease of transcribing using the play-back equipment available. While it might be argued that the presence of such equipment adversely affects the nature of the experience, Allen (2002) found that respondents rapidly disregard the devices with the result that tour conversations are realistic indicators of unhindered participant reactions.

All interviews between participants and researcher were recorded on audio cassettes. All recordings were transcribed using four professional transcribers in order to avoid the risk of significant error with the use of a single transcriber.

### ***Observation***

During the course of the Pilot Study a research assistant was used to follow participant pairs in order to record their visits on a floor plan according to the spatial tracking precepts originally determined by Robinson (1928) and Melton (1936). This was done in order that the experienced emotions in the recorded conversations might later be understood in terms of particular exhibits being examined and thereby related to the nature of the learning, as per the techniques of Allen (2002) and Fienberg and Leinhardt (2002). The visit of one couple was also video recorded for similar observational purposes. In each

case the observer maintained unobtrusive observation as noted by Creswell (1998).

Due to the difficulties experienced (refer following chapter) the use of observers was not continued in the Main Study.

### ***Trustworthiness, Verisimilitude and Ethics***

Whilst the three stages that constituted the overall study will be discussed later in more detail, certain characteristics are common to all. The first is the notion of *trustworthiness*. In this regard, Creswell and Miller (2000) consider that research rigor is improved through the use of triangulation, searching for discrepant evidence, examining alternative explanations, engaging in reflexivity, undertaking prolonged engagement in the field, developing an audit trail, and providing thick descriptive data.

Generally, the use of multiple methods (or triangulation) is considered to increase the trustworthiness of the research by 'using multiple reference points where intact but separable data sets are collected concurrently' (Grbich 2007, p.198); in other words, using two or more methods of collecting data regarding the same research question (Kelly 1999). According to Mathison (1988, p.13) 'it is essentially a strategy that will aid in the elimination of bias and allow the dismissal of plausible rival explanations such that a truthful proposition about some social phenomenon can be made.'

In his 1978 discussion, Denzin suggests that there are four forms of triangulation, namely by data, by investigator, by methodology and by theory (although he concedes that theoretical triangulation is problematic if not impossible in reality). In terms of the first method, data triangulation, he expands the concept by adding the variables of *time* and *space* in order to provide the variety of conditions under which a social phenomenon should be examined. Investigator triangulation refers to using more than one investigator in the research process, a practice which, although advantageous in theory, does come with the issue of how much data collection should be done by the principal researcher in order for them to properly analyse the data (Mathison 1988). With respect to triangulation by methodology, Denzin (1978) suggests

that it perhaps offers the most advantageous form, with the strengths of one method balancing the flaws of another.

In terms of this thesis, triangulation was achieved by way of both data type and method of analysis. With respect to the former, data were collected using different techniques (Personal Meaning Mapping, in-depth interviewing, during visit recording, and retour recording), in different locations (Australian Museum, Australian War Memorial, and National Museum of Australia) and at different times (pre-visit, during the visit, immediately after the visit, and 48 hours after the visit). With respect to the latter, the data analysis was performed utilizing a variety of methods including meaning map analysis, NVivo coding, textual analysis, and co-researcher verification. Each of these is discussed in more detail in later chapters.

Additional trustworthiness was sought through the process of reflexivity. This involves the researcher using conscious self-reflection in an acknowledgement of his potential influence on the research findings be that in terms of design, participant selection, setting, data collection, data interpretation or data presentation. In other words, it is important that the researcher's own personal experiences, insights, expectations, biases and theories be 'put to one side' in order that the phenomenon might be perceived 'freshly, as if for the first time' (Moustakas 1994, p.34).

Trustworthiness was also sought through appropriate sampling. Regarding the sample size for qualitative research, Patton (1990, p.184) states:

There are no rules for sample size in qualitative studies. Sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources.

Miles and Huberman (1994, p.27) state that 'Qualitative researchers usually work with small samples of people, nested in their context and studied in-depth - unlike quantitative researchers, who aim for larger numbers of context-stripped cases and seek statistical significance.' As such, qualitative samples tend to be purposefully rather than randomly selected, reflecting the fact that

the subsequent findings are specific to the cases under investigation rather than generalised to all such cases (Neville, Willis & Edwards 1994).

In terms of precedents in museum settings, a study involving the use of visitation diaries by Leinhardt, Tittle and Knutson (2002) utilised a sample of 18 adults to record the nature of their visits while in her exploration into the as-lived museum learning experience Allen (2002) used 30 respondents. In a qualitative museum study undertaken by Hooper-Greenhill and Moussouri (2001) 15 respondents were employed to 'think aloud' as they visited the galleries. In their phenomenological study of visitors to heritage sites Masberg and Silverman (1996) used a sample of 60 college students in order to expose comprehensive themes that were grounded in the data of the visitor's experiences. In their research to test the effects of different museum visit agendas on visitor learning, Falk, Moussouri and Coulson (1998) used a sample of 40 individuals to complete Personal Meaning Maps both before and after their museum tour. In the current study a total of 40 participants across both the Pilot Study and the Main Study were used which, in terms of the above precedents, was considered to be a justifiable sample.

The need to ensure trustworthiness was, according to the prescripts of Creswell and Miller (2000), also inherent in several weeks of in-field data gathering across all three museums. In addition, the data from each venue was subject to analysis including the search for discrepant evidence, negative cases and alternative explanations for conclusions being arrived at.

Furthermore, the use of a Pilot Study in one of those locations was seen to be supported by Marshall and Rossman (1999, p.64) who state 'To further buttress the rationale for a particular qualitative genre and overall strategy, discussion of a pilot study can be quite important...(which) should preserve the right to modify aspects of the design as the research proceeds.' Sampson (2004, p.383) also states that:

While pilot studies can be used to refine research instruments...they have greater use still in ethnographic approaches to data collection foreshadowing research problems and questions, in highlighting gaps and wastage in data collection, and in considering broader and highly significant

issues such as research validity, ethics, representation, and researcher health and safety.

Additionally, trustworthiness was achieved by the introduction of an audit trail with respect to the text in all transcripts. In this regard, each line of participant dialogue was given a sequential number which, initially in the Pilot Study and first stage of the Main Study, was used for NVivo-based software data assembly, analysis and dialogue extraction. Thereafter, in the second stage of the Main Study, such referencing was performed manually as a preferred means of becoming more intimately conversant and sensitive to the data during its in-depth and repeated examination. In both cases line(s) of dialogue were coupled with a reference letter for each respondent as well as to the particular transcript (visit or post-visit) to which they referred in order to provide a reliable locator or system of audit for every extract of dialogue that appears in the study (refer chapters 6 and 8).

Trustworthiness was further encouraged by the use of *'thick description'* by which the researcher 'produce(s) for the reader the same perceptual and experiential states sensed by the original observer - and, it is hoped, to capture the feelings and moods experienced by those the observer has recorded' (Denzin 1989, p.80).

The second notion is that of verisimilitude which Creswell (1998) indicates as being in the world of the study. In this regard, the research method assumed the perspective, context and language of the interviewees according to the concept of *Verstehen*, a German word meaning 'understanding' of human activities (van Manen, 1990/1997). By doing so it attempted to understand the subjective meaning that participants attached to their experiences.

The third notion was that of ethics. In this regard, Guillemin and Gillam (2004) suggest that the research should be grounded in the moral principles of respect for persons (for example, privacy, anonymity, freedom of participation), beneficence (namely, no harm to participants) and justice (that is, who does the study benefit). In order to deal appropriately with such ethical issues the procedures of enlisting and contracting respondents, retaining anonymity,



maintaining confidentiality and ensuring security were approved by the Ethics Committee of the University of Technology, Sydney.

In addition to the above, a standard-format document outlining the nature of the research and providing agreement to the recording and transcription of conversations for the purposes of the study was provided during the pre-visit briefing interview and signed by each of the participants (see Appendix One). To ensure their anonymity each participant was allocated a sequential (non-identifying) code as soon as they were recruited which was used thereafter in interview transcripts, NVivo reports, interpretive analysis and report writing. To further ensure confidentiality, only the researcher, the transcribers and the research assistant had access to the recordings or transcriptions. All tape recordings were returned to the researcher after transcription for secure storage. During the briefing session prior to commencing their participation in the study, each participant was informed of all these matters as well as the use to which the research findings would be put.

### ***Analysing Data: Interview and Conversation Transcripts***

In accordance with the approach suggested by Schatzman and Strauss (1973) analysis of the data were undertaken progressively with data collection, in this case upon the completion of the Pilot Study and then at the end of each of the two stages of the Main Study. This strategy allowed the research method to be refined and re-defined as the study progressed as well as the interview technique to be altered as required, new concepts to be generated and evolving understandings to develop.

Of the different approaches available in analysing qualitative data (that is, discourse analysis, content analysis, thematic analysis, biographical analysis, and narrative analysis as referred to by Hennink, Hutter and Bailey 2011) the one selected for this study was that of *thematic analysis*, described by Patton (2002, p.453) as an inductive form of analysis, 'discovering of patterns, themes and categories in one's data'.

In support of this approach Grbich (2007) considers that the visitor experience can best be explicated through the detailed description of participants'

thoughts, feelings and meanings that are interpreted through the identification of dominant themes. Such themes, according to Guba (1978), should be internally consistent but distinct from one another. As such, they are not the all-inclusive, mutually exclusive categories of the statistician but rather grounded categories of meaning that emerge through inductive analysis from the recorded statements of the participants.

In their use one needs to be cognisant of the 'legitimate charge of imposing a world of meaning on the participants that better reflects the observer's world than the world under study' (Patton 1990, p.398). In order to avoid this, the emergent themes in each phase of this study were challenged by considering their relevance with respect to the research questions and by re-engaging with the data in search for undiscovered or contradictory categories. Where these were found, the themes were expanded or modified in order to better reflect the reality of the experience.

Thematic analysis offers the benefits of relevance and flexibility, with the researcher being able to initiate, remove or merge themes as and when major issues alter in importance and meaning. However, the analysis also has the limitations for the reader of transparency, in particular how and when themes emerged as well as relevance, in particular whether each theme should be reported with its associated frequency. Nevertheless, in terms of the nature and context of inquiry of this study, it was considered to be an appropriate form of analysis particularly with respect to a non-theoretical, inductive approach to the data.

In arriving at the selected themes several techniques were utilised. The first was total immersion in the data - reading, rereading and reading once more in order to become intimately acquainted with the material until a final series of coherent, distinct and meaningful themes was identified. The second was the consideration of alternative interpretations whereby the proposed themes were challenged with other meanings, explanations and hypotheses in an attempt to make better sense of the data. The third technique, as suggested by Rossman and Rallis (2003), was the writing of thematic memos being thoughts about how the data were coming together in emergent themes as well as theoretical

memos recording notes, reflective memos, thoughts, and theories that provided insights into how both the literature and the researcher's own theories explained and lent meaning to the data.

### *Use of NVivo*

For the Pilot Study, as well as the first stage of the Main Study, coding and preliminary analysis of all transcripts was undertaken using the Nvivo software program.

In summary, NVivo assisted this study by managing the textual data. More particularly it provided a ready system of coding and organizing which enabled the material to be sorted into manageable 'nodes'. These allowed the researcher to classify sections of transcribed text according to a range of variables as well as construct themes by which the meaning of the data could be extracted.

As such, the transcripts of all recordings were coded into NVivo according to both informational content and emotions expressed. With respect to the former, the content was coded according to the concepts that emerged from the detailed examination of the pre-visit and post-visit meaning maps.

With respect to the latter, the emotions were classified according to the 16 clusters of emotions appearing in the literature (Sternthal & Roedder 1994). While this listing was deemed to be suitably comprehensive, the fact that it was not compiled specifically with respect to learning necessitated other emotions to be added as they were evidenced in the transcription texts.

The resultant coding of concepts and emotions enabled the preparation of reports indicating their respective frequencies according to the Assay feature of NVivo. Meanwhile sections of text were grouped according to the concepts and emotions noted above in the Node and Document reports. Both these reports provided a means of understanding the data in a way that assisted in the subsequent identification of themes in both the Pilot Study and the first stage of the Main Study. A research assistant was used to review both the NVivo coding

and data consolidation suggesting an appropriate degree of reliability in the themes so identified.

Despite its benefits to the data analysis, NVivo was replaced in the second stage of Main Study by a manual method of analysis. As discussed in chapter eight, the principal reason for this was to facilitate a closer form of relationship between the data and the researcher. The adoption of this more 'intimate' approach was particularly apposite to the research objectives in the later phenomenological stage of the study.

### **Looking Backward and Forward**

This chapter established the rationale for the use of a qualitative research methodology as the means by which the museum learning experience might be fully explored in order to understand its essential structure. It did so having examined the characteristics and benefits of such an approach as well as the research performed by others in the field, particularly with respect to its constituent elements of learning and emotion.

Further the chapter outlined the methods used in data collection and analysis of the Pilot Study and the first stage of the Main Study. It described the use of PMM and the recording of participant conversations and interviews. It also detailed the textual analysis that forms the framework of meaning for the experience.

Finally, the chapter detailed the means by which the various stages of the study would achieve the required degree of trustworthiness, verisimilitude and ethics consistent with academic conventions and the requirements of the University of Technology, Sydney.

The following chapter pursues the initial empirical work of the thesis in the form of the Pilot Study and the first stage of the Main Study. More particularly it outlines the emergent nature of the research design and the findings that unfolds from this process.

## **CHAPTER 6 : IMPLEMENTATION AND ANALYSIS PART ONE**

### **Introduction**

This chapter details the first two studies outlined in the previous chapter, namely the Pilot Study and the first stage of the Main Study. It examines the objectives of both stages, the selection of participants, study sites and equipment, as well as the means by which data was captured and analysed. The chapter identifies and describes the themes emerging from the textual analysis and finishes with summary findings.

### **PILOT STUDY**

#### **Objectives**

The principal objective of the Pilot Study was the exploration of an evolving number of techniques designed to capture the experience of the museum visit. It tested the efficacy of the audio recording system that had been specifically designed for this study and provided a trial of the other methods that had been selected. These included Personal Meaning Mapping (PMM), observation during the visits, recording during the visits, and in-depth interviews immediately after the visits.

More particularly, the Pilot Study provided the opportunity to utilise PMM to qualitatively examine the nature and extent of learning and in-depth interviews as a means of understanding the experience, with thematic analysis assisting in that process. Each method contributed to the triangulation of data capture and analysis by which the experience could be better understood and the techniques to be used in the first stage of the Main Study could be determined.

#### **Participants, Study Sites and Equipment Selection**

##### ***Research Sample***

In line with the qualitative approach suggested by Hennink, Hutter and Bailey (2011, p.89), it was not considered necessary to have a sample representative of the total museum-visiting population nor indeed of the total population

visiting the particular museums under investigation. Rather, a *purposive recruitment process* was used that directed the selection to a particular participant profile reflective of a homogeneous demographic, in this case university students. In so doing it was acknowledged that the subsequent findings would be specific to the cases under investigation (Neville, Willis & Edwards 1994).

As a consequence, the Pilot Study consisted of a sample of eight university students (to reflect the known higher education profile of museum goers), between the ages of 18 and 25 years (average student age range), of approximately equal numbers of male and female (to avoid any gender bias), who were Australian residents of whatever cultural background (to reflect domestic rather than tourist visitation), who were fluent in English (for ease of researcher-participant communication), who were comfortable voicing their thoughts and feelings and having them recorded (to maximise data capture), and who were interested in visiting museums as evidenced by having visited at least one in the last 12 months (to remove any inherent attitudinal bias). In addition, participants were required to attend in pairs who were already friends or a couple to facilitate more and relaxed conversation during their visit.

### **Research Site**

While the profile of Pilot Study participants should be reflective of those in the Main Study, Hennink, Hutter and Bailey (2011) suggest that participants in a pilot study should be resident outside the main study community. As the Main Study was to take place in Canberra (refer Main Study First Stage following) it was decided to undertake the Pilot Study in Sydney.

The Australian Museum, a natural science and cultural history museum located in the centre of Sydney, was selected because of its significant curatorial reputation, the availability of an area for pre-visit and post-visit interviewing of participants and a willingness of museum management to have the research conducted within their auspices. The curating of a temporary exhibition on Ancient Egyptian burial rites also offered the advantages of general interest and a circumscribed number of exhibits in a physically contained area. This

allowed the route chosen by participants to be monitored and recorded using the intended mobile phones.

### ***Research Equipment***

The equipment, which was designed to capture the as-lived experience during the course of the tour, involved the use of three-way mobile phone conference call connections between researcher and both participants within each pair. By virtue of this technology it was intended that participants could talk freely between themselves while allowing the researcher to interject into their conversation whenever necessary to clarify their location and reactions. In order to provide a connection between what was being said and what was being seen, a separate mobile phone connection was established between the researcher and a research assistant who followed the participants. Each of these connections was also connected to its own mini-cassette machine that enabled all conversations to be recorded. Upon completion of the tours it was intended for all cassette tapes to be synchronised and transcribed to get a full record of the tour that could then be correlated with the pre-visit and post-visit personal meaning maps.

### **Data Capture**

Because of the perceived difficulties of instituting a method that would capture both learning and emotion, it was decided to bifurcate the method related to the assessment of learning from that associated with emotion appraisal. This enabled both to be examined in the most favourable circumstances and thereafter be correlated in order to determine any interrelationships that might constitute the overall learning experience.

With respect to the assessment of learning, it was considered that PMM provided an insightful means of determining the nature and degree of knowledge gained. In accordance with the method determined by Falk (2002), a suitable cueing word written onto a piece of paper (*Burial Rites in Ancient Egypt*) was attended by pre-visit top-of-mind concepts, ideas, images, phrases, thoughts and feelings. These were then elaborated on by the participants both in written form as well as during the recorded pre-visit interviews. Following

completion of the visits the maps were amended and elaborated on in order to reflect modified knowledge and another recorded interview between researcher and each participant was conducted.

Regarding emotion appraisal, it was considered that the capture of the as-lived emotional experience, as evidenced in Hooper-Greenhill and Moussouri (2001) and Allen (2002), was most appropriately achieved using the technology noted above. Reflecting the methods of Allen (2002) it was also decided to attempt an emotional contextualisation of the as-lived experience by using a research assistant to observe and record the behaviour of participants by way of video camera and written notes.

As indicated in the previous chapter, a research assistant was used in the Pilot Study to unobtrusively follow participant pairs and record by written notes (and video for one pair) their behaviour. In particular the assistant recorded their route through the exhibition, the exhibits that were examined and, within the limitations of available sight lines and obstruction by other visitors, their emotional reactions associated with those exhibits. Specifically, these included whether the exhibits appeared to elicit easily identifiable reactions such as fascination, amazement, humour, disgust and/or boredom.

Triangulation was achieved through personal meaning mapping, recorded explanatory interviews between participants and researcher following the preparation of the meaning maps, recorded participant conversations during their visits and the observations of the research assistant.

Reflexivity was applied to data collection and analysis to ensure that the personal biases of the researcher were minimised, while extensive quotes are included in the text in order that the voices of the participants might emerge into the interpretation of their visits and interviews.

In addition to the in-field research assistant, a further research assistant with specialist computer skills, was used to assist with the inputting, manipulation and reporting of the data using the NVivo software and check on the reasonableness of the conclusions reached.



## Data Analysis

Diagrammatically the data collection and analysis process for the Pilot Study can be represented as follows:

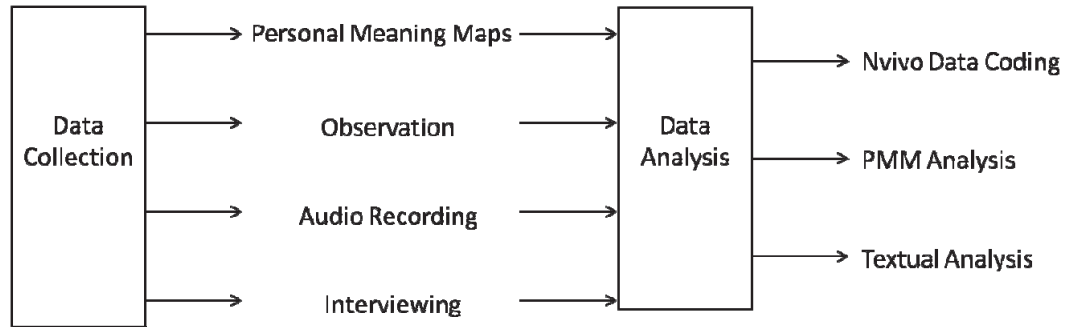


Figure 6-1 Pilot Study Summary Data Collection and Analysis

In summary, the Pilot Study utilised NVivo coding to analyse the personal meaning maps and textual analysis of the interviews. Analysis of the data collected was as follows:

### ***PMM Analysis***

Analysis of the PMM data involved repeatedly examining the pre- and post-visit maps and attendant interview transcripts for all participants. The objective was to gain understanding by allowing the data to increasingly reveal the inherent elements of the experience through a process of iteration rather than prescription. Over time there emerged words used by participants in both maps and transcripts that described the ways by which they interpreted the topic of the exhibition. Initially, words of a similar nature were grouped together, resulting in twenty categories that were then checked back with the data to ensure that they were discriminatively representative.

In order to have a more manageable information set, the categories were then synthesised into seven concepts which reflected similar ideas and collectively appeared to represent all the categories from which they were initially filtered. To ensure that the concepts properly captured the meanings described in the maps a process of moving back and forward between the data of the maps and the concepts was undertaken. This was repeated until eventually the

conceptual descriptions were considered to accurately represent the meanings inherent in the categories and the data. The resultant concepts were titled, described and diagrammatically portrayed as follows:

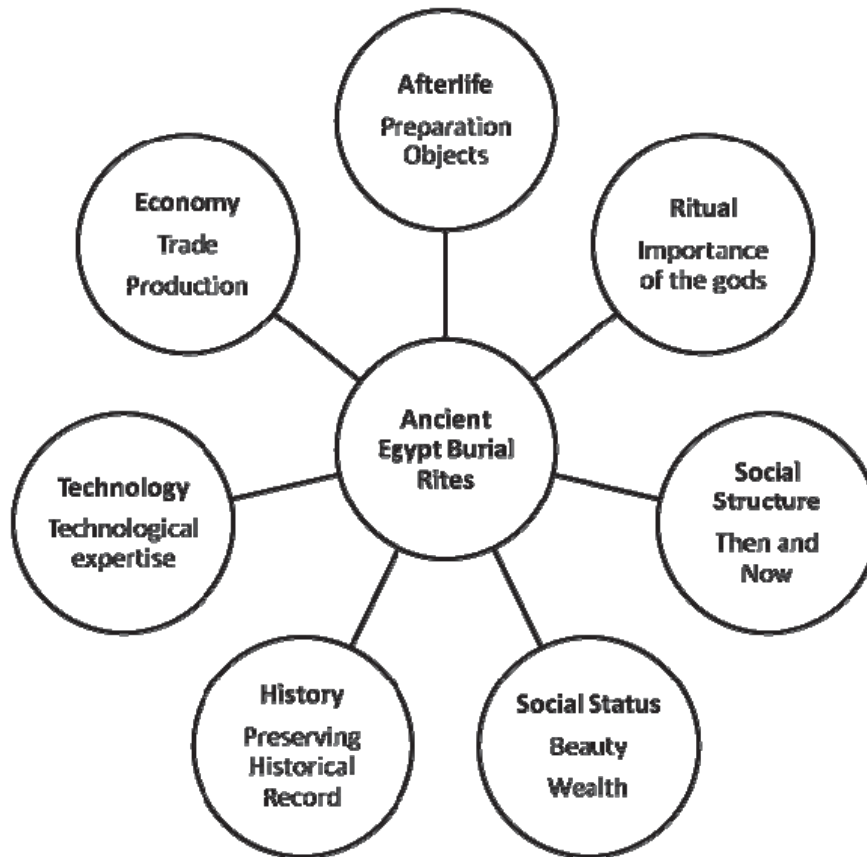


Figure 6-2 Pilot Study PMM Concepts and Descriptions

The words, ideas, images, phrases and thoughts used by participants in their pre-visit maps were then grouped according to these seven concepts. The same was done with respect to the additions, deletions and modifications appearing in their immediate post-visit maps. The two sets of maps were then compared in order to qualitatively determine how understanding appeared to have changed from pre-visit to post-visit.

In summary, such comparisons across all participants indicated an increase in the number of concepts used, suggesting an expansion in the breadth of knowledge as a result of the visit. For example, participant PE began in the pre-visit map with ideas representing three of the concepts (*Afterlife*, *Social Status* and *History*) that expanded to six (*Afterlife*, *Ritual*, *Social Structure*,

*Social Status, Economy and Technology*) in the post-visit maps. In some cases this general observation was accompanied by a change in the nature of the learning, apparent from the use of more comprehensive concepts suggesting a more complex form of understanding. For example, the pre-visit map of participant PA featured only two ideas (mummies, tombs) with respect to the concept of *Afterlife*, while his post-visit map included six such ideas (good/evil, afterlife, mummification, tombs, guardians and coffins). In others the second maps indicated a combination of concepts used in the pre-visit maps appearing to indicate a truncated form of learning in terms of the most memorable concepts. For example, in the pre-visit map of participant PD, the concept of *History* was represented by nine ideas (pyramids, sand, thousands of years ago, slaves, pharaohs, historians, excavations, civilisation and River Nile) which were reduced to only two in the post-visit map (markets, River Nile).

In short, the meaning maps indicated that learning had occurred, but not in the simple fashion of additional concepts that might be expected. That is, learning appeared as a reconstruction of information rather than its mere accumulation. While some conceptual schemata remained intact, others were added to, modified, rearranged or made redundant. In this sense, the PMM framework suggested an interpretation of learning that was evolutionary in nature, continually changing as new ideas, thoughts and images took precedence over and restructured old ones. As such, it was apparent that PMM provided a valuable means of not only determining existing knowledge but also qualitatively assessing the nature and extent of what might be seen as a more 'gestaltic' form of learning.

### ***Textual Analysis***

The visit conversations and post-visit interviews for each of the participant pairs were transcribed and examined and a process of filtering transcripts into similar 'chunks' of data was undertaken with the aid of NVivo. During that process different interpretations and definitions were developed until there emerged a final set of nine coherent, distinct and meaningful themes. As van Manen (1990/1997, p.79) notes, this involves 'a process of insightful invention, discovery or disclosure - grasping and formulating a thematic understanding is

not a rule-bound process but a free act of ‘seeing’ meaning.’ These themes and their descriptions appear in Table 6-1.

Table 6-1 Pilot Study : Transcript Themes and Descriptions

THEMES	DESCRIPTIONS
<i>Authenticity</i>	Acknowledging the reality of exhibits
<i>Identification</i>	Connection by assuming an ‘other world’ identity
<i>Empathy</i>	Understanding through shared feelings with an ‘other’
<i>Admiration</i>	Admiration for those described in exhibits
<i>Imagination</i>	Experiencing a visualised ‘other world’
<i>Reminiscence</i>	Recollection of personal things passed
<i>Thinking</i>	Understanding through reasoning
<i>Feeling</i>	Significance through feelings experienced
<i>Disengagement</i>	Lack of connection to the exhibit

The themes are explored in more detail below. The quotations are referenced by participant code, source (V= visit conversation; PV= post-visit interview) and line identifier. For example, in the Pilot Study, a code of PF,PV,86-87 refers to participant identifier PF, post-visit interview, transcript pages 86-87, while a code of PD,V,251-263 refers to participant PD, visit conversation, transcript pages 251-263.

### *Authenticity*

In several cases an awareness of the physicality and the uniqueness of the exhibit provided not only a basis for engagement but also the experiencing of felt emotions:

*We were kind of shocked to think ‘there’s an actual body’. They said it was two and a half thousand years old. (PA,PV,12-13)*

In many cases the awareness of such uniqueness appeared to be attended by a degree of reflection and at times contradictory emotions:

*I was really taken aback. I had never actually seen (a mummy) up that close before. You read about them and it was a strange mix of feelings. It was not disgust. Well, disgust that you were looking and going 'wow, that's gross'. But it was mixed with amazement. Like I'm seeing this 2,500 year old thing. (PE,PV,150-153)*

### *Identification*

Identification with an exhibit illustrated a deeper level of interaction by the visitor. More particularly, it appeared to involve a degree of dislocation of the individual into an 'other world' generally by way of an affinity with an exhibited personage:

*(T)hey hired mourners. When I read that I had a bit of a thought for a second, 'I feel like one of those hired mourners'. I have seen all this process that she's gone through and now you're there with the burial and you're knowing what's going to happen to her. So it's not so much empathetic. It is just related to some degree. (PF,PV,62-68)*

### *Empathy*

Empathy appeared to provide a form of relatedness between exhibit and visitor through shared feelings whilst maintaining the separateness of the two worlds. Often based on common characteristics, knowledge and/or experiences, empathy provided an enhancement of understanding or insight which also appeared to have an emotional dimension. In the following example, participant PA related to the exhibit through their shared humanity and experience:

*Yeah, it's just the fact it's a real human. I just get a different feeling towards humans than towards other things because you know how you feel and how, if you got cut, you know how it feels so you can relate it to yourself...You've seen guys, that one especially with a few teeth missing, you can relate to because you've seen guys get hit and knocked teeth out, and the pain or whatever. It just gives me a really churning feeling in my guts for some reason. (PA,PV,60-87)*

In the case of participant PF, a woman, empathy appeared to emerge by way of enduring social and personal expectations:

*How funny is this. They're like every woman, right? She wanted to look her best for the gods so she took all her cosmetic items with her to the tomb. Nothing has changed. (PF,V,156-158)*

### *Admiration*

In certain cases admiration for the exhibited works was based on existing knowledge such as with participant PA whose interest in art resonated with the exhibit in a way that gave it enhanced meaning:

*I loved that. That was quite cool. I was interested in the patterns and you're quite impressed by the way they were able to draw it and the symbols and stuff because you're not used to it...I like all that tribal art, the Indians and that. It's a fascination. It's like an interest. Even the Maori Samoan tattoos. I like all that stuff. (PA,PV,103-110)*

In other cases, feelings of admiration were associated more with imagined skill:

*I think it's remarkable when they're chipping the stone. You can imagine what sort of tools they used to do this. It's awesome. (PB,PV,70-71)*

### *Imagination*

In this case, the visitor-exhibit connection appeared to involve some form of visualised engagement either by way of personal involvement or observation. As an example of the former, participant PA 'imagined' the exhibited situation in order to place himself in the centre of it both 'physically' and emotionally:

*And you can imagine because all round the feet the moisture had gone all the way down to the feet. It was like a mouldy colour. You think 'Oh!'. It just made me feel sick...I was just thinking, 'imagine being buried alive in one of those things' - I am a bit claustrophobic - just being wrapped up so tight. (PA,PV,19-21)*

In this case the narrative of the imagined situation appeared to resonate with ideas of meaningful connection both cognitive and emotional.

### *Reminiscence*

Recalling personal experiences appeared to enhance engagement with exhibits and was often associated with felt emotions, as the following example illustrates:

*This was disgusting. I felt a bit sick. Because we were remembering the movies you've seen like 'The Mummy' and they walk off and all the linen drops off and there's just black skeleton with just teeth and you go 'this is disgusting'. (PA,PV,16-18)*

### *Thinking*

This theme appeared to take a number of forms. In the following situation it involved existing knowledge and expectations:

*Yeah (the skulls) were a bit disgusting but one of them had its hair. Bits of its hair and I thought that was just amazing to see. It was like curly locks and it was just like hair. I thought that would have dropped off a couple of hundred years ago, but no, it was still underneath. Like, it was amazing to see. (PE,PV,253-256)*

In some it was more associated with rationalizing from contemporary experience:

*It doesn't surprise me at all that they would make forgeries themselves...They must have had, like, brand names and stuff, you know like Armani or whatever...and then they said that it was a model of, like, Tutankhamun or something when it actually wasn't. (PC,V,73-83)*

In others the thinking was more complex, involving degrees of deduction beyond mere observation:

*What I don't understand is, with a lot of ancient Egyptians...if you're father or your husband died and you had to throw all this money into the burial and the people and the coffin and whatever else, then what would you live on afterwards, because you don't have any income? (PF,V,31-35)*

### *Feeling*

Emotion in both remembered and currently experienced forms provided the basis for interpreted meaning. In one case the experience was defined by way of recalled emotion:

*But with the body, I can see it in my head...It will stay with me. It will come back to me, I can feel it...I can describe the feeling and it's the same feeling I get when you watch the movies or I've had that feeling before...it's like a clenching...Yeah, you don't want to look. So you're torn. I wonder what that looks like. You're looking through like open fingers. (PA,PV,180-193)*

In another lack of knowledge resulted in feelings of isolation and lack of attachment with the exhibit:

*I don't know what arthritis looks like on an x-ray...I felt kind of left out, going there's probably a lot of people around here that know what arthritis looks like when it's worn down or something. But I just don't get it. (PF,PV,168-174)*

### *Disengagement*

In the case of an avoidance to engage or a disruption once engagement had commenced, meaning emerged not by way of connection as with the previous themes but by virtue of such disconnection. As such it might be argued that learning involved future avoidance.

In some cases disengagement resulted from existing knowledge:

*Yeah, you're just zoning out - 'that's pottery'. I know how it feels. I know what the textures are. I know how to make it. I know what it's used for. Whether or not they used it for the same thing doesn't really bother me. (PA,PV,196-198)*

or an unacceptable interpretation:

*There was about a 30 second video. It had no commentary. Nothing. What the hell were they trying to do and were we supposed to learn something from that?...We found it really annoying and that whole bit in the middle very frustrating. (PD,PV,177-182)*

or lack of continuing interest:

*Towards the end I was really bored and thought 'let's get out. I have had enough of this'. I lost all interest...I felt a bit cramped and felt that I had to make too much effort to learn something in there as well...I thought to myself, 'I don't want to know about that. It is so boring'. (PD/PC,PV,190-200)*

### **Summary Findings**

In reviewing the concept categories of the PMM analysis and the themes emanating from the textual analysis, four nascent ideas emerged.

The first suggests that both forms of analysis offer two perspectives on the experience, one by way of subjects, or topics, and the other by way of meanings running through the subject matter. As such, the learning experience appeared to be multidimensional in nature.

The second indicated the presence of feelings as suggested by the theme of Emotion in the textual analysis.

The third suggested that the experience of one exhibit influences the nature and extent of the learning associated with subsequent exhibits.



The fourth tentatively suggested that the museum experience influenced a change of mental constructs of participants regarding the exhibition topic.

### **Review of Pilot Study**

In terms of the objectives for this stage of the research it might reasonably be argued that an initial understanding of the learning experience was gained. However, some of the research methods proved problematic to varying degrees. A review of methods and discussions with participants on their experiences identified a range of issues related to both the logistics and quality of data:

- the mobile phone connections between respondents, co-researcher and researcher were found to experience on-going reception problems. As a result it was decided to replace the mobile phones with cassette players. These were used to record conversations between participants during their visit in order to better capture the emotional experience;
- the central topic used in the PMM's was, with the first pair, found to be insufficiently reflective of the subject matter of the exhibition (that is 'Burial in Ancient Egypt' which resulted in significant reference to pyramids rather than 'Burial Rites in Ancient Egypt' which provided concepts more in keeping with the exhibition). This situation was remedied with subsequent pairs by using the latter topic description. Overall, the meaning maps were found to be easy to understand and enjoyable to complete;
- the attempt to align exhibits to the recorded visit by having a research assistant note each visit on a floor plan proved overly complicated and time-consuming. As a consequence this technique was later abandoned in favour of a video camera, although this too was found to be deficient due to the low lighting and inability to approach the respondents sufficiently close to record what they were viewing without being unduly intrusive. As a consequence, the role of an observer was removed; and

- participants proved unreliable in terms of completing and returning their 48 hour maps which undermined the findings in terms of extended reflective learning. It was determined that completion of these maps would have to be undertaken during a later meeting with the researcher.

## **MAIN STUDY - FIRST STAGE**

The Main Study was divided into two stages in order that the findings of the first stage might enable the research method to be altered if and as necessary in the second stage (Schatzman and Strauss 1973).

### **Objectives**

As a consequence of the findings and review of methods from the Pilot Study, the objectives of the first stage of the research were determined to be:

- introduction of revised methods of data collection;
- expanded scope and enlarged data set by inclusion of two museums;
- capture of discussions and interactions between participants during their visit;
- determination of the nature and extent of learning through the continued use of personal meaning maps including reflective learning by way of 48 hour follow-up maps; and
- more intensive exploration of the learning experience through in-depth interviews between the researcher and individual participants.

## **Participants, Study Sites and Equipment Selection**

### ***Research Sample***

As with the Pilot Study, the sample selection for the Main Study followed a process of purposive recruitment. All participants had to be between the ages of 18-25 years, be Australian residents, be interested in museums demonstrated by having visited any museum in the last 12 months and be fluent in English. It was also required that they be willing to openly express themselves, be diligent at attending on a number of occasions and be able to present themselves in pairs (of same or different sex) with a pre-existing

relationship as friends or a couple (in order to facilitate uninhibited discussion during the tour which was to be recorded). It was not deemed to be important whether they had or had not visited either of the research museums before. As in the Pilot Study, initial scanning and recruitment was undertaken by way of an introductory telephone conversation in order to confirm their appropriateness according to the selection criteria noted above.

All participants were recruited from those resident at the Australian National University (ANU), Canberra, with the assistance of one of the resident students (a 'gatekeeper' as per Hennink, Hutter and Bailey 2011, p.91) who was known to the researcher and who had access to informal networks of ANU students. In order to encourage participation as well as adequately compensate students who may otherwise have used their spare time for study or a part-time job, participants were paid an allowance of \$20 for each hour spent touring the museum, completing the meaning maps and being interviewed. In order to allow for an appropriate length of time for meaning map preparation, visiting, retouring and interviewing, either a full morning or afternoon was allocated to each pair.

A total of 20 participants were involved in the first stage of the Main Study divided equally between two venues. The final sample consisted of 7 males and 13 females, all aged 21 or 22 years, studying a broad range of academic disciplines.

### ***Research Sites***

Two museums were chosen for use in the Main Study, the *Australian War Memorial* (henceforth referred to as the AWM) (Plate One) and the *National Museum of Australia* (hereafter referred to as the NMA) (Plate Two), both located in Canberra in the Australian Capital Territory of Australia (Plate Three).

Canberra was selected on the basis of the availability of its highly reputable museums, the existence of an acknowledged 'museum culture' in the city that encouraged both awareness and visitation amongst residents, and the availability of student participants studying at the ANU.

The selection of these two particular museums was based on their importance and curatorial excellence, richness of content capable of engaging different interests and backgrounds, and their Australian character that could resonate on many levels.

The website of the AWM (2011) notes that ‘the Australian War Memorial combines a shrine, a museum and an archive’ whose principal purpose is to ‘assist Australians to remember, interpret and understand the Australian experience of war and its enduring impact on Australian society’ as well as ‘the sacrifice of those Australians who have died in war’ (Plate Four). The website of the NMA (2012) describes the institution as a ‘social history museum. We explore the land, nation and people of Australia. We focus on Indigenous histories and cultures, histories of European settlement and our interaction with the environment’ (Plate Five). Given the differing nature of their exhibitions, it was considered that the two museums offered visitation experiences that were not only sufficiently engaging but also suitably diverse.

### ***Research Equipment***

Based on the findings of the Pilot Study, it was decided that the sole means of recording participant conversations during their visit, the personal meaning map interviews and the retour interviews (noted below) for the first stage of the Main Study would be with individual recorders using lapel microphones provided to each participant. This was expected to provide efficiency and effectiveness of data recording without intrusion in the on-going flow of conversation.

### **Implementation**

#### ***Recording Procedures***

The research method employed in the first stage of the Main Study represented a significant departure from the Pilot Study. First, the use of more reliable technology allowed the audible recording of participant conversations during the course of their visits. Second, it was decided that upon completion of their visit each participant would be individually accompanied by the researcher on a

'return-to-the-experience' (Creswell 1998), that is a repeat of the visit (referred to as a *retour*). As such, the participants were asked to retrace the route previously taken while recounting as best they could all the behaviour, thoughts and feelings that they had previously experienced. Accordingly, the method was considered to be superior in terms of efficiency, effectiveness and reliability than that of the Pilot Study while maintaining the suggestions of Robinson and Clore (2002) to record the experience as soon as possible in order to minimise lapses and altered memories.

Otherwise, the first stage of the Main Study followed the procedures of the Pilot Study including the transcribing of recorded conversations and interviews, the use of identity codes for all participants and transcribed lines of dialogue, the use of personal meaning maps to qualitatively record incremental learning, and triangulated data capture and analysis.

### ***Collection Process***

Initial meetings between each participant pair (10 in total) and the researcher were held prior to entering the museum. In terms of style, the researcher sought to present himself in a friendly and casual manner with a genuine interest in the interviewees as people and as participants in the study. Early rapport was established through initial small-talk and questions regarding their home locations (all were from outside Canberra) and the nature of their subjects being studied at university. Although subsequent interviewing followed a semi-structured format it maintained an informal approach that offered maximum flexibility for both interviewer and interviewee.

After tape recording their names, ages, whether they had visited that particular museum before and confirming that they had visited a museum at least once in the last 12 months, participants were requested to create their first meaning map built around the topic headings of the museum exhibition that they were about to visit. These included the 'First and Second World Wars' (excluding other wars exhibited) for those visiting the AWM, and 'Australia and Australian-ness' (which captured all exhibitions) for those about to visit the NMA. As with the Pilot Study and in accordance with Falk (2002), they were first asked to

record onto the maps their top-of-mind ideas, concepts, images, phrases, thoughts and feelings and then elaborate on those with meanings and expansions using different coloured pens.

Having completed their first meaning maps, participants immediately commenced their visit as a pair. As in latter phases of the Pilot Study the visits were recorded on audio cassettes using lapel microphones. All participants were free to roam the exhibitions according to their own interests, desires and motivations without feeling compelled to examine exhibits that they would normally have ignored. The only instruction given by the researcher was to turn the tape machine on prior to entering their exhibition and ensure that they turned the tape over after 60 minutes. However, they were requested to be as vocal as reasonably possible and comfortable during their visit, verbalizing their reactions as they were experienced.

Each visit took approximately 50 minutes. Immediately upon completion participants were again requested to prepare a new meaning map that recorded those things that now came to mind regarding the exhibition they had just viewed and any emotions that they felt with respect to those thoughts. After finishing their maps each participant individually accompanied the researcher back into the museum. At the start of each retour participants were asked to attempt to follow the exact path that had been previously taken with their touring partner, in particular noting aloud into their cassette machines what had been looked at, what had been talked about, and what feelings had been felt. As each retour progressed participants were asked for more expansive clarification or elaboration on words that were not sufficiently understood or specific, as well as being reflectively probed as to the nature and reasons for opinions given, interpretations reached and emotions experienced.

Taking an average of 60 minutes to complete, the retour conversation between the researcher and individual participants proved to be a comprehensive means by which issues relating to the experience of the tour could be explored. Having previously been asked to remember their tour direction and content, each participant appeared able to recount in detail what they had experienced. While it is acknowledged that the original visit may not have been remembered

in complete detail, it is believed that those elements of the exhibition that were found to be most engaging were recalled, and those that were so recalled were of most relevance to the study. Moreover, although not reflecting the as-lived visit that was attempted in the Pilot Study, the method did provide a comprehensive record of what was experienced by each participant in a way that allowed the researcher to probe for clarification, elaboration and meaning.

Approximately 48 hours after completing their visit each pair returned to their museum at a pre-arranged time and completed their final meaning maps again with thoughts and feelings associated with the exhibition they had previously viewed. Unlike those in Sydney, the Canberra participants all arrived on time and undertook what was requested of them.

In summary, the method of data collection used in the first stage of the Main Study was found to be both comprehensive and dependable. It also provided information that was considered much richer than that gathered in the Pilot Study.

### Data Analysis

Diagrammatically the data collection and analysis for the first stage of the Main Study can be represented as follows:

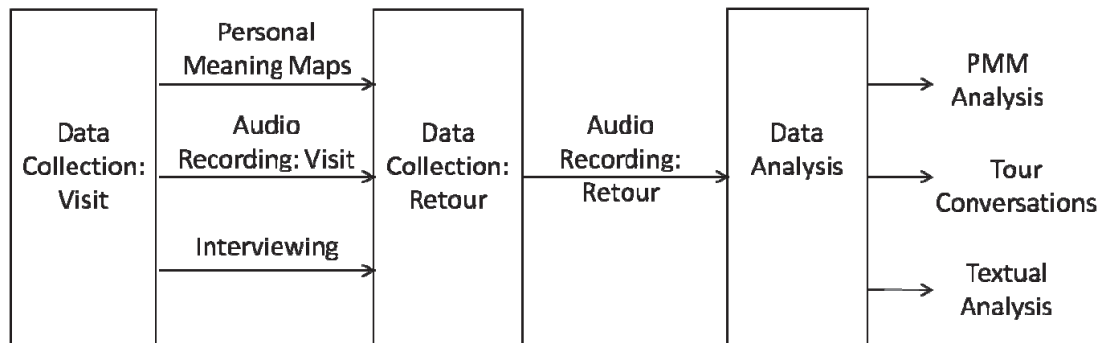


Figure 6-3 Main Study First Stage Summary Data Collection and Analysis

In summary, three forms of qualitative data were collected in the first stage of the Main Study. The first utilised the personal meaning maps and interviewing to evaluate the nature and extent of learning as a result of the visit. The second utilised the conversations between participant pairs during their visit to

determine the context in which the learning occurred. The third utilised the retour transcripts to develop a textural description of the experience. By combining the results of these methods it was intended that the insights gained might better describe the nature of the learning experience.

### ***PMM Analysis***

As with the Pilot Study, the personal meaning maps and the transcripts of the interviews completed before, immediately after and 48 hours after visiting the two museums were individually and repeatedly examined. Over time groupings of words, ideas, images, phrases and thoughts emerged that described the ways by which participants interpreted the topic of their respective exhibition. This assembly of initial categories was repeatedly checked back with the data to ensure that it was both representative and inclusive.

Again according to the Pilot Study and for reasons of manageability and comprehension, the categories were then coalesced into a more limited number of concepts that summarised the means by which respondents collectively interpreted their exhibitions. To ensure that the concepts properly captured the meanings described in both the categories and the three sets of meaning maps, a process of moving back and forward was again undertaken until the conceptual descriptions were in a form that was considered to be fully representative of the meanings inherent in both.

Six concepts were identified for each of the NMA and the AWM. These appear below with respect to each museum as do relevant excerpts taken from participant transcripts of the retour interviews. The quotations are identified with the participant code, their inclusion in the retour transcripts (RT) and the locator lines of dialogue. An example of a meaning map related to each museum appears in Appendix Two.

#### **AUSTRALIAN WAR MEMORIAL: PMM Analysis**

A total of six concepts appeared to encapsulate the wording used by participants across all three maps. The concepts and brief descriptions are noted in Figure 6-4.



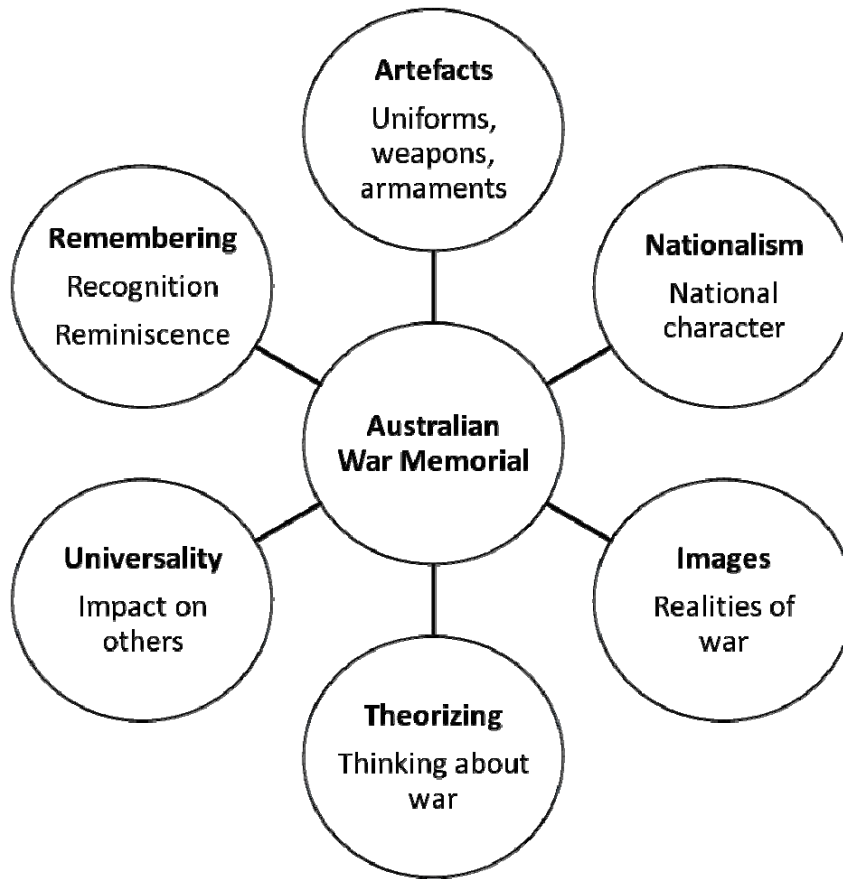


Figure 6-4 Australian War Memorial Main Study First Stage Concepts and Descriptions

These concepts are further described and evidenced by way of their texts noted below.

#### *Artefacts*

Here were the commonly observed components of warfare including uniforms, weapons and armaments (Plate Six).

To some, uniforms elicited an almost visceral response, as with participant A who found *'the German uniforms very evocative, extremely theatrical, especially the Gestapo uniforms. So I guess that resonates quite strongly with me'*. (A,RT,3-4)

Such appeared not, however, to be the case with weapons that held far less attractive connotations:

*Swords are hideous weapons. With the bayonets they always make me shudder. I think of the Samurais as well with the sword...You look at that sword and you're like, hmm, if that cut someone you'd need that many stitches. It's crazy. It really is disturbing. (A,V,223-225)*

Similarly the armaments of war were often considered in a negative light such as an RAF engine that *'made me feel a bit scared and a bit disgusted because it's this disgusting, ugly great machine used to destroy people'* (S,RT,109-110) and a fighter plane that was:

*so small...Sitting in there if the plane had been bombed and sitting in there and being stuck in there knowing you were going to die is the scariest place to be in the world. (K,RT,74-79)*

### *Nationalism*

The engendering of a sense of nationality in a young country emerged from a number of exhibits relating to positive character traits such as friendship, humour and courage (Plate Seven). To some participants such images were associated by feelings of support and encouragement, such as participant T who found that they:

*made us a little bit proud with the soldiers all wearing their hats that way. It matches the pictures that I see of all those soldiers going and all the fanfare and that. The people in the street, they look so happy. It's the image that I get, and the emotion and the excitement. The excitement and the adventure of going to war. (T,RT,55-58)*

Similar sentiments were echoed in a different situation where a sharing of nationality resulted in feelings of empathy within a battlefield context:

*We were talking about the British rule and I think we've both been told that the poor Australians were told by the British to go and storm ANZAC Cove and were massacred...I felt a bit angry at the thought that the Australian soldiers were made to go in this hopeless campaign. (S,RT,2-6)*

### *Images*

This category incorporated images of devastation, trench warfare, brutality, the misuse of animals and the bravery of certain individuals (Plate Eight). The images included objects, paintings, photographs, installations and symbols. In most cases the image provided information, caused a realization that changed established understandings, and elicited an emotional response. Such was the

experience of participant E when viewing photographic images of the Kokoda trail:

*You realise how hard it was. Not necessarily feeling sad, but just feeling sorry for the guys that they had to go through that hardship and fight and also just walk and wade through rivers and stuff like that. (E,RT,27-29)*

as well as participant E with respect to another scene of the realities of war:

*I was struck by this painting, the cable laying in the jungle clearing, partly because it was some kind of forced march. It kind of made me realise that even just the normal day-to-day stuff behind the lines was really bloody hard...I guess I have some empathy, feeling sorry for their position. (E,RT,9-12)*

The emergent realizations of human vulnerability and frailty, both physical and psychological, during a time of war was both acknowledged cognitively and responded to emotionally by participants who found so much surprising new information. Such as the debilitating mud of the WW1 trenches that made them:

*feel gross actually. Imagine, soldiers having to walk through the mud and how ineffective they must have been. (K,RT,69-70)*

### *Theorizing*

While much of the experience involved observation and the connection between object and visitor, there was also evidence of assuming some distance, where the exhibition is viewed objectively and a form of philosophical position taken that provides another level of understanding, as with participant D and her perception of reality (Plate Nine):

*I think you just realise these people were real. They have no idea what they are doing. They are forced to fight or they want to fight and how do you explain that somebody back home. They're just average Jo-Blows. There's nothing special about a soldier. (D,RT,69-71)*

A similar sentiment was echoed by participant E who questioned the approach taken by the museum and its apparent interest in putting nationalism before humanity, making her feel:

*really kind of like sometimes they try and tell us the way that we're meant to feel, either side. We're meant to be really proud of Australia and the way that we fought and the people that we killed. But, like, they were real*

*people as well...they had families. They had lives and the uniform just made me think of that...Yeah, totally empathetic. (E,RT,29-38)*

### *Universality*

The impact of war on those left at home was clearly evident, particularly amongst female participants who related to the many surprising sacrifices made by women particularly those faced with war time shortages (Plate Ten):

*Then we saw this. It is a parachute made into a woman's petticoat lining and there's a wedding dress made out of lining. They were wearing parachutes! The brides are marrying Americans and wearing parachutes! I felt a bit sorry for the bride who was wearing lining, mosquito netting and furniture piping. (K,RT,84-87)*

Recognition and understanding was also witnessed for those,

*waiting at home and not knowing...Women waiting for their men to come home. It makes me feel sad and sorry for people. (E,RT,64-66)*

as well as women whose war effort took them closer to the action and hence the death and injury:

*Felt a bit sad looking at the nurses because, particularly from a nurses perspective, it would have been devastating to have sick people, wounded coming in all the time and then going onto the next battlefield and having all the same thing. (T,RT,20-23)*

### *Remembering*

As possibly the principal theme of the AWM, it was not surprising that the recognition and remembrance of past sacrifices made by veterans involved in the fighting in both world wars was much in evidence amongst participants (Plate Eleven). While such sentiments percolated through all categories it also emerged as pride and respect in such cases as:

*the tail gunner getting shot with shrapnel and it's still going on, telling his flight captain to do this, go away from here, that sort of thing. It doesn't make me sad but really respecting the bloke. We wondered what we'd do if we were in that situation. (B,RT,76-78)*

For some, existing family connections resulted in some of the most vivid recollections particularly apparent amongst those who:

*heard stories, especially fighting the Japanese and the psychological tactics they used. And those stories really freaked me out and I think of those when I'm in there (the Kokoda section). (S,RT,138-141)*

Others recalled fond memories of shared times with veterans:

*I used to wear my grandfather's medals on ANZAC Day and I recognised the third from the left...I felt very proud and my grandfather would explain to me their meaning but I don't think I really understood. I was a bit too young. (L,RT,10-16)*

The end of the exhibition marked a sense of recognition for many participants:

*Here on the sign it says, 'Welcome Victory for our Friendly Australian Imperial Forces'. I think this is really cool because, yeah, it was quite, one of the things that made me feel kind of proud...Thanks for liberation, that really is genuine liberation. So yeah, proud. (E,RT,38-42)*

#### NATIONAL MUSEUM OF AUSTRALIA: PMM Analysis

A total of six concepts encompassed the concepts mentioned and appear in Figure 6-5.



Figure 6-5 National Museum of Australia Main Study First Stage Concepts and Descriptions

These concepts are further described and evidenced below.

### *Landscape*

The interpretation of the Australian landscape resonated strongly with all participants, including those who liked the video (Plate Twelve):

*because it shows some really powerful things about the Australian landscape. The sky and the ocean and it just reminds me of the raw energy that Australia has and how I feel happy to be an Australian, to say that I come from here. (G,RT,111-113)*

It was a feeling that some suggested was shared by all Australians, not only in the sense of its physicality but also as part of a deeper spirituality:

*a man narrating about Kakadu. And this was something I found quite moving because he actually talks about, like, rock art reflecting the changes the Aborigines made to their lifestyle as the climate changed. It just had, like, a strong sense of continuity and it causes a lot of reflection. (H,RT,33-35)*

Linked to the landscape was the unique Australian fauna with which most participants appeared to have a strong emotional connection:

*I just love this (platypus). I stood here for ages. I love this because of its scale, texture and so cute and such a familiar object. Such an enigmatic creature, little flash of tail. (P,RT,16-18)*

as well as a sense of loss when Australian species were under threat or extinct:

*the Tasmanian Tiger. It's very, very sad. It made me reflect on the extinction and how unnecessary it was. It's kind of a bit removed and very empty from the rest of the exhibit. (H,RT,10-12)*

Australia's ever-present bush fires and droughts provided this category with considerable cognitive and emotive content. In one case it was based on academic studies:

*In this particular area I found it interesting, most probably because it played on a personal interest, because I do engineering. So this (exhibit) for water, like, it was an interesting exhibition. (J,RT,29-30)*

In another example it was more associated with the unfamiliar:

*This (bush fire bunker) was interesting. It was a welcome change to be able to go into something tactile and be able to touch it and feel it and that sort of thing. That made the experience better because we could get in there*

*and away we go, sort of thing...you could feel a greater connection with the exhibit...It was curious and fun. (J,RT,62-70)*

### *Heritage*

Interpretation of historical objects is inevitably constructed from a personal perspective that is capable of being in conflict with the opinions of others (Plate Thirteen). Participant G found comfort from exhibits portraying:

*how the young people went and fought for their new country. I mean, they were fighting for the British Empire as well, but they were fighting for, to have a new place to live and their families back home. And I feel that's really admirable...It makes me feel proud to be an Australian...It also makes me feel grateful for the sacrifices people made. (G,RT,84-88)*

Alternatively, demonstrations of British imperialism seemed out of step with some contemporary sensibilities:

*This big arch (to be) a symbol didn't make me feel anything and I don't think it's meant to. I think it is also kind of ironic. It's hard to feel emotion for something so self-consciously ironic. It's like wreathed in Union Jacks and it's obviously meant to be a symbol of a different time. I'm not sure what you're meant to feel for it now...I don't really feel anything. It's just this odd thing...which I can't relate to. (H,RT,105-112)*

### *Arrivals*

The history of migration and resultant multicultural nature of Australian society which all citizens share provided the basis for stories with which participants could relate (Plate Fourteen):

*I looked at this man's experience of being a refugee, coming from East Timor to Sydney...he looks like a really nice, kind man and I felt really respectful of him and his ability to leave everything and still being so friendly and kind of humble about his experiences as well. (G,RT,177-181)*

A discussion on the topic of refugees was not always greeted enthusiastically, in this case by participant P who:

*commented on different attitudes to refugees and how they are called 'Boat People'. I found the whole thing about refugees really clichéd. How we should just accept the refugees. It is just so familiar! (P,RT,179-181)*

### *Identity*

Exhibits that related to national traits, characteristic behaviour, nationalism and stereotypical images elicited considerable discussion and polarized positions (Plate Fifteen).

For some, acceptance and promotion of a unifying national character was cause for some celebration as in the:

*opening ceremony in the Olympics. (It) was a defining point in Australian culture...It was things that everyone relates to. It was an international level. The whole world got to see finally what we were and it was encapsulated. I just loved it. It was a great performance. A celebration of being an Aussie. (P,RT,156-160)*

The tendency for the Australian character to appear replete with images, icons, emblems and personalities found due acknowledgement and consideration during the tours of most participants. For participant G, the perennial public reference to one national icon proved to be less than totally accepted:

*And we looked at the Aussie digger. Just the idea of the digger an Australian icon and I want to feel that that's a symbol of Australia, but at the same time I know how manipulated (it is) politically. So I have a bit of a struggle in my feelings for that. (G,RT,81-83)*

Images and objects related to family and home resulted in some of the strongest reactions, particularly when they involved memories of childhood:

*representing cubby houses (that) really hit home... Nostalgic because I had a cubby house. Always used to build them myself. So I thought that was a really interesting way of representing Australian identity, childhood identity. (G,RT,50-52)*

### *Indigenous*

Awareness of, and concern for, indigenous Australians was expressed from a number of perspectives (Plate Sixteen). To some, the historical context provided the basis for apparent feelings of empathy and frustration:

*I guess that they did things a hell of a lot differently and we just kind of came in and pretty much screwed up their little community and didn't really listen to anything they had to say when they knew a lot about the environment and they knew how it worked...Kind of annoyed...They were as Australian as one could possibly be. They were the first Australians! (I,RT,59-66)*

To others the indigenous culture provided the basis of connection, respect and wonder:

*And they have all these stories - Dreamtime stories that are presented here in cartoon form. I liked that because it's passing on by word of mouth the stories in the same way that the Aborigines would have...while they are*



*quite unbelievable they are amusing and, I don't know, just give a different interpretation of events. (G,RT,37-42)*

### *Lifestyle*

The Australian lifestyle, as exhibited, appeared to be sufficiently multi-dimensional as to resonate on some level with all participants (Plate Seventeen). For some:

*it was interesting to see that sport is the same thing throughout time. I just see that to be a big part of Australia. Very fulfilling. (J,RT,113-116)*

For others it provided a more rural setting, including a:

*shearing shed. It kind of reminded me of a post-war film. I like all the action. I love this because it is simple. The farmer. I like the newspapers on the wall and the fabric. I thought this was really Australia. (P,RT,96-99)*

Percolating through most of the exhibits appeared a sense of newness, of a generally successful country where the citizens largely enjoy peace and a good standard of living. Such conclusions seem to be reflected in the broadly positive comments of participants including participant J who:

*looked at the big things around Australia and some of it was amusing. Amusing that it's there but at the same time it was obvious that it's such an Australian thing - big things. (J,RT,116-120)*

as well as participant I who was:

*kind of happy to be living in Australia and looking at all the good things that we've got. (I,RT,135-136)*

### *Summary : PMM Analysis*

As in the Pilot Study, comparisons across all participants from both museums indicated some increase in the number of concepts used, suggesting an enhanced breadth of knowledge as a result of the visit. Again reflective of the Pilot Study, such extension was accompanied in some cases by the use of more comprehensive terminology suggesting greater complexity of understanding and in others by a synthesis of terms suggesting a focusing of knowledge with respect to particular concepts. In both these cases an increased depth of knowledge was indicated.

Unlike the Pilot Study this stage of the Main Study also provided the opportunity to compare the post-visit and 48 hour maps in order to determine the nature of learning following any reflection and memory loss. A detailed examination of all maps from both museums indicated there to be little difference between the number of concepts listed in the post-visit maps and those appearing in the 48 hour maps. On the face of it this would appear to indicate there to be little evidence of enhanced retained knowledge beyond that which existed immediately post-visit. However, in the light of the differing structure of the pre-visit, post-visit and 48 hour maps such a conclusion may be premature. Specifically, while some concepts transferred directly from the pre-visit maps to both subsequent maps, all of the 48-hour maps indicated an absorption of new concepts and/or a consolidation of concepts from both the pre-visit and immediate post-visit maps.

In other words, the sum total of the 48-hour map concepts included pre-visit concepts (that is, those which remain unchanged), certain immediate post-visit concepts (that is, those that represent an increase in breadth of knowledge of the subject topic) plus variations/additions to both (that is, those that represent an increase in depth of knowledge of the topic). As such, it was found that the concepts that appeared in the 48-hour maps did not reflect exactly those appearing in the two previous maps but rather represented an enhanced holistic view thereby suggesting an improvement in general mastery of the topic. In short, the personal meaning map analysis suggests that the form of learning that occurred is a distillation of information, filtered, re-examined and re-structured by the visitor during the course of the visit and thereafter. Such knowledge remaining over time might therefore be viewed as a form of 'residue' following the conscious (and presumably unconscious) processes of distilling, restructuring, assimilating and forgetting.

Examples from participant meaning maps demonstrate the conclusions noted above.

For participant A, relating to the AWM, the categories described as *Invasion* and *Kokoda* and included in the concept of *Images: Realities of war* appeared in the pre-visit, immediate post-visit and 48-hour maps indicating a consistence

of understanding. For the same participant, categories reflecting a pre-visit romanticism regarding war (*War novels/comics, Excitement, War movies, Battle of Britain*) included in the concept of *Theorizing: Thinking about war* were modified in both subsequent maps to incorporate a more realistic attitude towards its inherent brutality (*Revulsion, Shock, Panic*). A similar clarity of understanding occurred with participant L also with respect to the AWM. To her pre-visit category *Prisoners of War* (included in the concept of *Images: Realities of war*) was added an imagined awareness of *Tiny, cramped, uncomfortable* in the second map such that a consolidation of both appeared in the third map (*POWs - austerity*). In the same way her pre-visit category of *Women's army* (included in the concept of *Universality: Impact on others*) gained definition in the second map (*Women's clothing*) and further refinement in the third map (*Dresses, Petticoats, Fabric*). As such, participant understanding regarding POW's appears to have been broadened by virtue of the visit while the impact of war on the lives of women appeared to have gained depth, thereby adding to a general mastery of the topic of the Second World War.

A similar process of information assimilation and restructuring of understanding was present with participant F. While the pre-visit category of *Death* (included in the concept of *Images: Realities of war*) remained unchanged in the 48-hour map, categories relating to the politics of war (*Power, Unjust, Propaganda, Power struggle, Pain & Sadness, Men, Women & Children*) subsumed into the concept of *Theorizing: Thinking about war* which were not present in the first map appeared in the second map and continued into the third map. As such, the assimilation of new information regarding the political context and regional ambitions of the war induced a changed attitude that interpreted human suffering to be less about combat and more about the machinations of politics. In this sense the process of thinking about the new information provided during the visit resulted in a restructuring of existing schemata in order to accommodate an altered way of perceiving the topic of the Second World War (and possibly war in general).

### ***Tour Conversations***

While the personal meaning map analysis indicates the form of learning resulting from the visit, analysis of the recorded conversations occurring between participants during their visits indicates contextual factors that appear to be attending such learning. Specifically, it seeks to identify through the words used what feelings might be influencing its nature.

From an examination of the transcripts a broad range of affective reactions to exhibits was noted. Particular emotions include surprise, irritation, amusement, boredom, amazement, affection, disgust, excitement, concern and joy to name a few. Of particular note is that the emotive responses appeared to operate in a somewhat regulatory fashion such that the nature and degree of exhibit engagement was enhanced or mitigated by virtue of the emotions experienced.

In order to further consider the influence of emotion, the concepts that emerged from the personal meaning map analysis were correlated with words identifying an emotion. In each case the wording was examined to determine whether the emotions appeared to influence the nature and/or extent of the concepts. A sample of such concepts and apparent emotion are noted below.

#### ***AUSTRALIAN WAR MEMORIAL: Tour Conversations***

##### **Artefacts:**

*The old Japanese officer's sword. Japanese officer slaps Spence with his sword. Spence killed the officer. The cut was from his head to his shoulder. Holy shit! That's brutal. You look at that sword and you're like, hmm, if that cut someone you'd require that many stitches. It's crazy. It really is disturbing. (FEAR) (A,V,229-233)*

*It's a gun and there's a sword on the end so when the gun fails you can do hand-to-hand combat. Can you imagine being handed that thing. Being seventeen or eighteen or, God knows, fourteen? And they hand you that and you're like, I'm going to have to get that close! (EMPATHY) (C,V,218-220)*

## Nationalism:

*I keep relating all my imagery back to the movie Gallipoli. I think it captures a lot of things. Australians have got this weird underdog thing. That's why they pick Gallipoli, of all things. (IRRITATION) (C,V,273-276)*

*Gallipoli makes me kind of annoyed. It's the way we play on it. You know, all that mateship and larrikinism. Because it's the first big war that we have been involved in. So they all go Gallipoli, when it was a failure. You know what I mean? (ANGER) (T,V,98-102)*

## Images:

*There's a portrait. It's of Jim Gordon...He won the Victoria Cross...He looks sad around the eyes...It looks like there's a person inside this uniform that's being glorified. The uniform is being glorified but the person has just been stuck in there. A bit helpless and a bit overwhelmed. The uniform is glorified but the person inside is a bit afraid. (COMPASSIONATE) (T,V,404-420)*

*So this is a reconstruction of a corner of a typical hut in a prisoner of war camp in Germany. It makes me scared. The thought of the prisoners or war camps. You don't know anything. You don't speak their language. You don't know how long you're going to be there for. I think you'd feel very helpless. (FEAR) (T,V,494-502)*

*Imagine walking around, knee deep in mud, trying to get through something, with this heavy bullshit around you. Like, look at that! That's just insane! I can imagine everything having just having a total lack of colour. (SYMPATHY) (C,V,466-468)*

## Theorizing:

*Oh my gosh, that's like the tiniest island ever. Who cares? And all these people died for it. That seems stupid. It's funny how executing people is like wrong, and yet like killing them is what you're supposed to do. It's your whole mission. But then you can't execute them. (CONFUSION) (F,V,107-111)*

*The Great War ended after 1,560 days of fighting. Over 8 million people died. That's huge! For Australia the Great War brought loss and suffering to virtually every family. We didn't have a very big population then, did we? (AMAZEMENT) (T,V,354-355)*

#### Universality:

*I find it hard to imagine because it seems like a boy thing. I find it much more easy to be empathetic with the idea of women being stuck at home because, I don't know, I guess I feel a bit isolated from the actual war thing. (EMPATHY) (S,V,65-67)*

*Are they dead kids or are they just sleeping kids? Mothers and children, killed in an air raid. That's awful. That just makes me feel more angry than sad. Sad which turns into anger. (ANGER) (E,V,202-204)*

#### Remembering:

*I associate all this with my dad. My dad goes in every single ANZAC parade. Every single dawn service. So I would walk with him as a kid in the parade. (PRIDE) (C,V,112-114)*

*Oh, wow! I've never actually known how many people died. Less of ours than the French. That's not something I've ever heard of. And like massive amounts of British! (SURPRISE) (D,V,142-144)*

*It reminds me of this story my uncle told me. They had to get on their boat quick smart and sail away from where they had been. And they had this Italian guy with them who was a migrant in Australia and he got left behind. But he kept swimming out to the ship and all he could say was, hello Joe. And he kept saying hello Joe and kind of calling out to them as he was swimming to the ship. They were just making a joke out of it because they couldn't go back and get him and he wasn't going to get to the ship and they just knew he would die. So they were laughing and going, hello Joe. It makes me feel very sick. (DISGUST) (S,V,166-175)*

NATIONAL MUSEUM OF AUSTRALIA: Tour Conversations

Landscape:

*I love the stuffed animals! It's weird looking. It's an eastern echidna. They really do display the strangeness of the animals. (AFFECTION) (H,V,5-11)*

*There is something very ominous about this big map of Australia with the red lights to show how the introduced species spread. (UNEASINESS) (H,V,85-86)*

*Sometimes these images of the landscape really do actually stir me. (PRIDE) (H,V,414-415)*

Heritage:

*Oh! Imagine carrying a handkerchief like that with all the Commonwealth thing embroidered into it. Silk handkerchiefs were a popular choice among Australian soldiers. War memorabilia is especially strange. I don't feel I understand it that much. It seems so much more English than the Australia I'm used to. (CONFUSION) (G,V,285-288)*

*Trucks used to pull over sand. How hard would that be. I feel sorry for people that used to do all the hard stuff that we don't have to do now. (SYMPATHY) (Q,V,444-445)*

*Heyyy! Kids used to go to school on one of these with horses. It's amazing. These girls are driving themselves to school before cars were common - people used real horse-power. That's amazing. (AMAZEMENT) (R,V,463-465)*

Arrivals:

*It's interesting when Australians have such a history of refugees and immigration, that just so recently there's so much hostility towards it. I'm just a bit fearful of the kinds of things people actually do think about immigrants, and that they don't say them and now they're having the chance to. I just find it really scary. (FEAR) (G,V,588-591)*

## Identity:

*It's interesting how they talk about the birth of the nation. Like things that they did. It seems so constructed. National icon: the spirit of the digger. I want to look at that objectively, but then I think of all John Howard and his un-Australian... It is annoying because...you want to empathise but you think if I do that I'm a fool. (FRUSTRATION) (G,V,345-356)*

*Ohhhh! Cubbies.*

*Did you have a cubby when you were little?*

*Cubbies were part of growing up. (AFFECTION) (I,V,163-169)*

*We are looking at a pink caravan.*

*Oh man, I had so many crappy caravan holidays as a kid!*

*God they suck!*

*So many fights over monopoly. (ANNOYANCE) (H,V,321-327)*

## Indigenous:

*Okay, pictures of Aboriginal people. Artists were trying to make sense of something new and unfamiliar, so they look strange and distorted. It's interesting that even though there were so many different looking people in Europe, they would still think that Aboriginals were weird looking. (CONFUSION) (G,V,531-534)*

## Issues of Concern:

*The fires were the summer before you started uni. Sounds really scary because I heard stories from the guy I used to live with. (FEAR) (M,V,32-33)*

## Identity:

*It's interesting how they talk about the birth of the nation. Like things that they did. It seems so constructed. National icon: the spirit of the digger. I want to look at that objectively, but then I think of all John Howard and his un-Australian... It is annoying because...you want to empathise but you think, if I do that I'm a fool. (FRUSTRATION) (G,V,345-356)*



**Lifestyle:**

*I can't really relate to this kitchen because it's too old for me. It doesn't look like my kitchen at all. (BOREDOM) (G,V,455-456)*

**SUMMARY: Tour Conversations**

Detailed examination of the conversations suggests that, together with each meaning map concept, there exists an emotion that to varying degrees influences the nature of that concept. In as much as such concepts represent the structure upon which learning is based, it might therefore be suggested, albeit tentatively, that emotion, to some degree or other, influences the nature and extent of the learning experience.

**Textual Analysis**

As with the Pilot Study, the identification of themes provided the means by which the text of the retours was analysed in order to better understand the participant experience. As explained by van Manen (1990/1997, p.88), themes represent 'the needfulness or desire to make sense...(through) the process of insightful invention, discovery, and disclosure... (providing) the means to get at the notion (of the experience)...which is always a reduction of the notion.' Notwithstanding that the Pilot Study had proved somewhat problematic in terms of the methods and techniques used, the themes that were identified successfully formed the basis for an expanding understanding of the experience which could be further explored using an increased number of participants at different research venues.

The identification of the themes was a three-stage process (Hennink, Hutter & Bailey 2011). The first reading provided a broad overview of the content including the types of issues raised, the depth of discussion on each and whether they were raised repeatedly. Attention was also given to specific content such as emotions expressed, language used to describe particular issues, and situations where there were changes of topic within the data. As such, the first reading was primarily designed to identify the more explicit issues which were clearly evident in the data and which could provide a 'first

cut' in the thematic analysis. At this stage some broad definitions of themes were developed to aid in the second stage of the analysis.

The second reading was more analytical in nature, designed to uncover more implicit or subtle issues that had not been immediately evident in the first reading.

The third reading involved an analysis at a higher level of abstraction leading to a more overarching understanding grounded in the data. This included noting patterns, associations and connections, examining the nature of such connections, and determining whether they were representative of any underlying meanings. In this regard NVivo allowed for a sorting of the data into manageable pieces that aided in the filtering process. In order to enhance reliability, a research assistant collaborated on the data filtering process and checked the emerging themes as they unfolded.

The third reading also culminated in a drawing together of such levels of understanding in order to arrive at a consolidated view of the themes operating throughout the data. As the themes started to take shape, more comprehensive definitions were developed enabling the data to be more clearly sorted into thematic groupings.

At the commencement of the analysis, each museum was dealt with separately as it was considered that their differing nature might result in a unique taxonomy of themes. However, after developing the themes it became apparent that the differences emerging in the data were quite subtle and thus the decision was taken to consolidate both data sets and the subsequent analysis.

The merged themes and their definitions are noted below. It should be noted that the emergence of the themes reflects the broader descriptions used at this stage of the analysis in order to avoid prematurely losing meaning which necessarily occurs through the process of data reduction. This was particularly relevant as the research considered the themes in the light of the earlier discussion on meaning map concepts and emotions.

Table 6-2 Australian War Memorial and National Museum of Australia: Main Study First Stage Themes

THEMES	DEFINITIONS
Identification	Seeing something of oneself in the exhibit
Empathy / Sympathy	Understanding and sharing another's situation
Imagination	Constructing a reality beyond environment and experience
Respect	Connection through respect for another's character/actions
Reminiscence	Recalling one's own experiences or those of others
Authenticity	Experiencing real objects of historical value
Contemplation	Considering oneself and the world at large
Affect	Engagement through affective responses
Disengagement	Avoiding or terminating engagement

These themes are further described below. The quotations include the museum to which they relate, the respondent code, the retour indicator, and line identifier.

### *Identification*

The concept of identification was particularly prevalent in the visits and retours in both museums. In broad terms it encompassed those facets of the visitation experience that revolved around the visitor seeing something of themselves in the exhibit. In short, the theme can be stated as: 'I'm like them, they're like me'. Such a reaction was based on some form of acknowledged commonality, for example gender or similarities in age:

*We just felt really connected...They were real people and they were our age and they were facing war and they were facing people coming and overtaking our country. (AWM,F,RT, 88-91)*

It appears that such identification has both an external and an internal dimension. The former encompasses connections based on such things as family, friends, society, nationality and environment:

*I didn't realise, and I don't think anyone realised how important it was to our psyche...the Olympics was a defining point in Australian culture...this is what makes you feel to be Australian. (NMA,P,RT,154-157)*

The latter was based on more intimate connections including likes, dislikes, attitudes, beliefs and values as well as those things that were related to personal knowledge or experience.

*I enjoy sport...I guess when you're reminded of things that exhibit a comforting routine in your life you seem to experience that same comfort again, say watching the cricket on the TV...You don't need to do anything else; it's just comforting and you enjoy it. (NMA,J,RT,117-124)*

### *Empathy/Sympathy*

While empathy relates to an understanding of another's feelings or situation, sympathy concerns a compassionate sharing of another's emotions, particularly with respect to suffering. However, for the purposes of the analysis, the two were considered to be sufficiently related to represent a single theme.

In terms of empathic responses, the ability of respondent S to place herself in the position of others provided a particularly good example:

*(T)his bit kind of reminded me of the women at home. And just the feeling of waiting for someone and not knowing whether they are dead or alive or where they are. And I am amazed that people would actually live through that because I think I'd get really, really depressed if I was waiting for someone to come home. I'd feel too depressed to function I think. I think that's what would probably happen to me. And it makes me feel a bit proud as well because a lot of women kept going on. I am amazed people have that kind of resilience. (AWM,S,RT,49-55)*

Sympathy, on the other hand, was usually represented by words indicating a feeling of compassion as seen in the following excerpt:

*This diorama, which is the battle of Magdavar...These people are so exposed because they are just running straight up the trench where they're all going to be killed as they get to it and these people are all going to be trampled on. And that made me feel really sad and a feeling of hopelessness. (AWM,S,RT,39-44)*

### *Imagination*

The ability to visualize a world beyond both existing reality and past experience engaged many visitors in a powerful form of experience with exhibits that impacted them personally. In broad terms, responses reflected two dimensions

of imagination; those whose imagination described a 'virtual situation' and those who imagined themselves actually in the situation described by the exhibit.

*(T)hey explained how the rabbits are really bad for the environment and stuff and they're spreading really quickly but I just start imagining someone actually killing the rabbit and thinking of my pet rabbits at home, killing them and...it was just too much. (NMA,N,RT,86-88)*

*I think the Spitfire has the romanticism to it...I imagine these young fighter pilots with their girls at home and they'd go out on the days with their scarves...it seemed like a gentlemanly combat of wits and machine. (AWM,A,RT,111-114)*

### *Respect*

This theme involves the participant evaluating the actions undertaken by an exhibited individual and comparing them against their own moral code. In some cases the resultant sense of admiration had to be inferred from the context rather than relying on the respondent to use the actual word:

*Look how brave this woman must have been to try and stow away after living with this American man, married and she's pregnant and she stows away and gets to America and finds him. It is a nice uplifting story. (AWM,K,RT,53-56)*

### *Reminiscence*

This theme generally emerges from a recollection of the participant's own experience or the experiences of others. In some ways reminiscence could be said to reinforce earlier themes where memories provide a personality structure on which identification is based. However, while the previous themes are largely outwardly projective (that is, they involve the respondent in some form of real or abstract relationship with others), memories are essentially personal and can be maintained privately, emerging only upon demand. For this reason reminiscence is considered to be a fundamentally different from those themes that rely on some form of overt connection.

In terms of remembered personal experience, respondent I found particular delight in the children's house exhibit of the ANM:

*It makes me happy because it reminds me of growing up and being little and going over to the bush with all the kids on our street and building big cubbies and having cubby wars. It just reminds me of growing up in Australia. (NMA,I,RT,70-73)*

while respondent E found the imprint of early learning to be particularly resilient:

*(I)t's kind of taught to us from a young age and drilled into us that the symbols like the swastika and the SS insignia, they make me feel almost enraged. I kind of associate those symbols with evil. That's partly because it's been drilled into us. Yeah, angry and sad. (AWM,E,RT,20-23)*

### *Authenticity*

As the collection, preservation, presentation and interpretation of real objects is considered to be a defining characteristic of history museums it is not surprising that the experience with authentic exhibits constitutes a distinct theme in the Main Study as it did in the Pilot Study.

This theme appears to have two dimensions. The first might be termed *physical authenticity* being connected with specific individuals, places, objects and factual stories as the following quotation evidences:

*We really liked this portrayal of the last veteran because it's just real, it's what he is now. He's not in his suit; it's just a photo of a person and no connotation. (AWM,D,RT,99-100)*

The second could be viewed as *conceptual authenticity* encompassing types of objects within certain life contexts such as war, life and death. As such, it might be argued that there exists a degree of reflective thinking on the part of the visitor and hence the potential for confusion with the theme of thoughtfulness that follows. The difference resides in the visitor's reaction that in this case emerges as a direct response to the physical nature of the exhibit as the following quotation demonstrates:

*Something about swords and knives just seems like a dirty, brutal way to fight I guess. As opposed to taking someone out with a gun from a long way away. (AWM,B,RT,48-53)*

### *Contemplation*

Rather than being primarily encompassed by, and concerned with, the physicality of the exhibit under observation, thoughtfulness leverages off it to

ponder more general life issues or personalises it to oneself and one's own behaviour. In this sense it might be viewed as a contemplation of the nature of existence or a search for meaning.

Participant F referenced the realization of governmental manipulation to comment on the humanity of both sides in war:

*(T)hey try and tell us the way that we're meant to feel, either side. We're meant to be really proud of Australia and the way that we fought and the people that we killed, but they were real people as well...And we talked about the power of words and it just made me realise the way that people can be persuaded through words, and persuaded to kill people through words. (AWM,F,RT,49)*

while participant A reflected on his internal conflict between romanticism and the dark side of war leading to a better understanding as to the nature of his own attraction:

*It's such a strong emotion, it's fascinating, it's seductive...In part I think this is stupid, it's horrific, I can't understand it and in the other sense I really can. I can see the aesthetics of war, the uniforms, the weapons and just even on VP day seeing the planes and everything. It's almost like, I don't know, it's like pornography almost. You look at them and you're like, 'why am I so drawn to this machine gun' or whatever...people get off on them more or less. I think that contributes to this cycle of war. The people are so enthralled by the weaponry and the tactics and all that. It's really deceptive. (AWM,A,RT,132-146)*

### *Affect*

The most pervasive theme appeared to be that of emotionality. Whilst connection with an exhibit was usually associated with positive emotions, such was not always the case. Some negative emotions (for example, disgust), if coupled with other positive ones (for example, fascination), appeared to allow the composite emotional to be sufficiently positive to maintain the connection:

*I guess I quite like it in a sense. It's such a strong emotion. It's fascinating. It's seductive. I think I'm always like this even with movies and things like that. I think this is stupid, it's horrific and I can't understand it and in another sense I really can see the aesthetics of war, the weapons and just even on VP Day seeing the planes and everything. It's almost like, I don't know, it's like pornography almost. (AWM,A,RT,147-152)*

Where the emotional reaction was entirely negative, however, a lack of engagement or a disconnection of engagement was expected.

### *Disengagement*

This theme includes both the participant's conscious decision not to initiate engagement with an exhibit or the decision to sever engagement for reasons other than completing an examination of the object.

In certain cases the lack of engagement resulted from a perceived irrelevance of the subject matter:

*A 1950's kitchen. I wasn't born in the 1950's or 60's so I don't feel connected to this. It's cute. It's describing the Australian way of life but not really how I would understand that. (NMA,G,RT,117-118)*

or from a perception of existing knowledge:

*I also found the whole thing about refugees really cliched. How we should just accept the refugees. It is just so familiar...I didn't read any of this stuff. It did not even interest me because I did it at school. (NMA,P,RT,180-181,192-193)*

Alternatively, disengagement after commencement was seen to result from the likes of annoyance, frustration or confusion:

*Even the video screens were a let down, because you wanted to be immersed more in the exhibition. It just seems trivial. Things of grandeur and pride and awe that you could see that reflects Australia...I guess I'm either missing the point or someone has just put it there because they felt it was important. But (I feel) annoyed and disinterested. I'd be quite willing to pass it by. (NMA,J,RT,180-184)*

### **Summary Findings**

The change in the data collection involving retour interviewing raises the question as to whether the process of retelling was not the experience as lived and therefore involved degrees of reflection that were not present during the initial visit. Certainly it would be difficult to conceive of the return-to-the-experience being devoid of any 'mental residue' from the original experience. The question therefore revolves around the degree of reflection that might have occurred after the experience. In that regard there appear to be two mitigating factors. The first is that the retours were undertaken directly after the completion of the initial visits, thereby minimising time for reflection and/or memory loss. The second was that the interviewing method encouraged all



participants to vocalise only what s/he had been thinking or feeling during the course of the experience. The observation that this requirement appeared to be generally adhered to suggests that the comments gathered reasonably represent their thoughts, feelings and behaviours that occurred during the course of their visit, albeit with some impact of the reflective process that is likely implicit with this approach.

Another issue that emerged from the conversation texts relates to the pairing of participants undergoing the visit. At times the meaning of exhibits appeared to be 'negotiated' between the two participants. This occurred as a process of mutual questioning, joint or delegated information search, discussion, reflection, interpretation and assimilation. As such, both individuals appear to operate as an extension of an integrated whole, drawing on each other's store of knowledge and experience, asking questions of each other, seeking out answers, compiling understanding and responding to the emotions which arise as a result. Thereby information, both new and old, is 'traded' and reactions are often 'agreed to' as both voice their positions and usually reach a form of natural consensus. Rather than being surprising, such findings are inherent in social meaning-making described by the sociocultural context of Falk and Dierking (2000). As a result it is difficult to assign particular responses to individual participants. The requirement to do so was not, however, considered to be of such import as to adversely affect the outcomes of the research.

Another concern emerged from the textural analysis whereby it appeared that *Emotionality* as a separate theme might arguably be removed by virtue of the fact that it appears to course through many of the other themes. In that sense it could be viewed more as a 'facilitator' of the engagement and a catalyst for learning rather than a theme of meaning in its own right. However, upon further consideration, it was decided for reasons of transparency and understandability, that the influence of emotion on the experience should continue to be identified in order that the 'structures of the experience' (van Manen 1990/1997, p.79) are clearly evident.

Despite these issues, the first stage of Main Study introduced and successfully tested the revised methods that were introduced after the Pilot Study thereby

providing a more efficient process of data collection and enhanced quality of data.

With respect to the personal meaning maps, it was determined that the knowledge that appeared in the pre-tour and immediate post-tour maps was carried forward, distilled and/or restructured by the time of the preparation of the 48 hour maps indicating in most cases an increase in both breadth and depth of knowledge. It was also realised that, as per the Pilot Study, the text appearing in both the maps and the explanatory interviews could be consolidated into a number of representative concepts. Because of their synthesised nature it might be said that it is by way of these concepts that participant understanding related to the map's central topic is structured. In other words, these concepts individually and collectively provide the 'conceptual scaffold' upon which participants add personally relevant details that provide subjectivity and understanding to the experience. Moreover, because they are common to all participants, it may be suggested that they provide a universality of understanding for all visitors experiencing that particular museum.

In terms of the analysis of the participant conversations, a number of emotions were identified and placed within the context of the meaning map concepts. It was considered that such emotions might influence the nature of the concepts and in so doing the nature of the learning.

In summary, the PMM concepts that provided the knowledge structures by which learning was experienced, the emotions that emerged in the tour conversations and influenced the development of such concepts, and the themes that gave meaning to both concepts and emotion provisionally might suggest some form of interrelationship within the context of the data. If such a relationship were to exist it might further be suggested that altering one of the three could cause a modification in either, or potentially both, the other two. As such, the assimilation of additional concepts could be said to result in enhanced meaning and potentially positive emotion. Such an inference could be said to provide a degree of clarification regarding the fundamental structure of the museum learning experience as questioned in chapter one.

## **Looking Backward and Forward**

Following the testing of equipment and analytical processes in the Pilot Study, the first stage of the Main Study benefited from the emphasis given to retour interviewing, personal meaning mapping and textural analysis, both conversational and thematic. Emerging from the improved processes of data collection and analysis was an enhanced diversity of content and richness of understanding.

In particular, it is suggested that a structural framework for understanding the museum learning experience exists in the suggested interrelationship between learning, meaning and emotion. If such is the case it might reasonably be inferred that learning is enhanced through a discernment by the visitor of greater personal meaning and/or a heightened experience of positive emotion.

Although it might be said that such a supposition sheds significant light on the important processes involved in museum learning, it did not appear to fully explain the nature of the learning experience. Specifically, it did not reveal what might be termed the 'essential structure' of the experience - the experiential core that would define the fundamental characteristics of the three interconnected elements of learning, meaning and emotion. Without such definition it could be argued that the experience is fully and completely understood.

Moreover, while much had been learnt about the nature of the museum learning experience, the descriptions that emerged by way of the textual analysis did not sufficiently provide the type of data necessary to completely address this issue. In this sense, the central question of the research remained unanswered and with it, the sub-questions. In the parlance of the metaphor, the lid of the black box remained closed.

In the spirit of the emergent construction, a number of methodological options were explored in response to the perceived limitations of the existing data. Whilst a qualitative methodology was still considered appropriate, it was obvious that the approach adopted thus far was limited in its ability to rigorously explore the fundamental structure of the experience. In terms of an alternative

approach, additional reading was undertaken in the learning and emotion literature as well as with reference to the work of other museum researchers.

In this regard Masberg and Silverman (1996, p.20) suggest that 'phenomenological approaches may well hold the key to truly illuminating the multidimensional nature of visitor experiences.' Within the field of education, phenomenology had claimed a position of credibility concerning understanding the process of learning (Marton, Hounsell & Entwistle 1997; Marton & Saljo 1997; Prosser 1994). With respect to the influence of emotions, Fischer (2006, p.185) states that the 'phenomenological method seems particularly suited for studying the emotions.' More importantly, phenomenology appeared, according to Seamon (1982), to offer the attractiveness of discovering the essential structure of the experience in order to elicit its underlying meaning.

Van Manen (1990/1997, p.9) contends that by 'aim(ing) at gaining a deeper understanding of the nature or meaning of our everyday experiences' phenomenology has demonstrated its worth in the professional domains of education, nursing, medicine, law, psychiatry, counselling and psychology. More specifically, he argues that 'It differs from almost every other science in that it attempts to gain insightful descriptions of the way we experience the world.' Similarly, Sokolowski (2000, p.2) states that phenomenology offers the advantage of 'the study of human experience and of the ways things present themselves to us in and through such experience' while Merleau-Ponty (1962, p.vii) determines it to be that which 'offers an account of space, time and the world as we 'live' them.'

With its focus on the determination of the essential nature of experience, it appeared that phenomenology provided an appropriate and beneficial means of fully exploring and explaining the fundamental nature of the phenomenon that is the museum learning experience. As a consequence it was decided that it should provide the theoretical and empirical direction for the remainder of the study.

## CHAPTER 7 : A PHENOMENOLOGICAL FRAMEWORK

### Introduction

From the broadly ethnographic approach of the previous chapter, the turn to phenomenology marked the adoption of a different course that was calculated to further explicate the nature of the museum learning experience. More particularly, it was considered that the focus of phenomenology on the *erlebnis*, or 'lived experience' (van Manen 1990/1997), had the ability to give new direction, structure and significance to the inquiry and thereby expose the essential structure of the museum learning experience.

The purpose of this chapter is to establish the philosophical and methodological framework that informs the remainder of the study. It discusses the fundamental concepts of phenomenology, particularly through the work of Edmund Husserl (1859-1938) and Martin Heidegger (1889-1976), and outlines the phenomenological approach taken in stage two of the Main Study.

### Introducing Phenomenology

In the Preface to his work *Phenomenology of Perception* Maurice Merleau-Ponty (1958, p.vii), asks the question 'What is phenomenology?' and then goes about answering it:

Phenomenology is the study of essences: the essence of perception, or the essence of consciousness, for example. But phenomenology is also a philosophy which puts essences back into existence, and does not expect to arrive at an understanding of man and the world from any starting point other than their 'facticity'. It is a transcendental philosophy which places in abeyance the assertions arising out of the natural attitude, the better to understand them; but it is also a philosophy for which the world is always 'already there' before reflection begins - as 'an inalienable presence'; and all its efforts are concentrated upon re-achieving a direct and primitive contact with the world, and endowing that contact with a philosophical status.

Put somewhat more succinctly by Grbich (2007, p.84):

Phenomenology is an approach which attempts to understand the hidden meanings and the essence of an experience together with how participants make sense of these.

While the term 'phenomenology' appears in the writings of Emmanuel Kant (1724 - 1804), in particular his *Critique of Pure Reason* (1781/1958), it was given a more defined scientific and philosophical meaning by Georg Wilhelm Friedrich Hegel (1770 - 1831) in his *The Phenomenology of Spirit* or *The Phenomenology of Mind* (1910) (due to the dual meaning of the German word *Geist*) who referred to it as knowledge as it appears to the consciousness. In this sense the word phenomenon reflects its Greek origins which lie in the word *phaenesthai* meaning 'to show itself' which in turn emerges from *phaino* meaning 'to show itself in itself the totality of what lies before us in the light of day' (Heidegger, 1935/1977, p.74-75). It is from this heritage that phenomenology takes as its foundation the maxim 'To the things themselves.' However, it was the works of Franz Brentano (1838 - 1917) in his *Psychology from an Empirical Standpoint* (1874) and his pupil Edmund Husserl (1859 - 1938), whose extensive publications from 1913 until his retirement transformed phenomenology into a philosophical 'movement'.

Grbich (2007) notes three major classifications of phenomenology, namely:

- *Classical / Realistic / Transcendental Phenomenology* which is defined by the structures of consciousness, intentionality and essences, the constitution of objects in pure consciousness, and the identification of such constitutions through the process of phenomenological reduction;
- *Existential Phenomenology* which views consciousness not as a separate entity but part of human existence and experience. As such, individuals are inextricably immersed into their lived world existence which incorporates essences but by virtue of their 'being' provides an absolute beyond such essences; and
- *Hermeneutic Phenomenology* which investigates the interpretive structures of experience whether that be from the outside perspective of the objective researcher or the inside perspective of the interaction between the interpreter and the text. In this context the whole is interpreted in terms of the part and the part in terms of the whole such

that the 'being' of individuals becomes evident by the activities of 'beings'.

Central to Husserl's (1913/1982) classical form of phenomenology are certain fundamental concepts of phenomenological research that can be summarised as follows:

1. *The study of everyday lived experience.* Phenomenology seeks to arrive at deeper understanding of the nature and meaning of everyday experiences pre-reflectively and without taxonomy, classification or abstraction. In this regard, van Manen (1990, p.36) states that 'Lived experience is the breathing of meaning';
2. *The explication of phenomena as they present themselves to consciousness.* In phenomenology, only that which is presented to the consciousness can be experienced whether it be real or imagined, empirically measurable or subjectively felt. Anything that falls outside of consciousness *ipso facto* falls outside of possible lived experience, and
3. *The study of essences (or eidos).* Phenomenology seeks to determine the internal and universal meaning structures of lived experience without which it would not be what it is.

The term 'essence' derives from the Greek *ousia* that refers to the inner essential nature or true being of a thing. From the Latin comes the related word, *essentia*, which arises from *esse* meaning 'to be'. While Plato considered essence to relate to the very nature of something, of which particular instances were simply imitations, Aristotle held that the notion represented something in its final state (van Manen 1990/1997). In relation to this study Grbich (2007, p.84) defines essences as:

objects that do not necessarily exist in time and space like facts do but can be known through essential or imaginative intuition involving interaction between researcher and respondents or between researcher and texts.

As such, phenomenology of a lived experience concerns itself with both the 'concreteness' (that is, the *ontic*) as well as the 'essential nature' (the

*ontological*). It asks not about the factual nature of a state of affairs but rather the nature of the phenomenon as meaningfully experienced (for example, what is the nature of the museum experience *actually like* as the visitor moves from exhibit to exhibit).

To Husserl a phenomenological study, therefore, requires more than simply a description of an experience with respect to a particular phenomenon, but rather that the essential elements and meaning structures of the experience are described. Such elements in any particular phenomenon can be multiple or singular. With respect to the former Spiegelberg (1982) and Hayllar (1999) use the term *particular essences* reflecting their particular characteristics with respect to the phenomenon and with respect to the latter *general essence* as operating through all the particular essences and thereby unifying the experience.

### **Intentionality and Perception**

In Husserl's (1913/1982) phenomenology the concept of *intentionality* is of primary significance. To Aristotle the term related to an orientation of the mind to its object. That is, the object exists in the mind in an intentional way (Vella 2008). To Husserl, however, the concept refers to the relationship between consciousness and the object of that consciousness. Thereby, objects and phenomena have meaning which is 'created by the mind through actions which have been directed toward these objects via a process of intentionality using concepts, ideas and images which form meaning for that individual' (Grbich 2007, p.85).

However, Husserl (1913/1982) considered that only those phenomenon that allowed a process of external reflection through phenomenological reduction or *bracketing* of the natural world were worthy of study. This term was devised by Husserl who was at first a mathematician and consequently accustomed to its use as a device for separating constituent parts of equations. As such, one needs 'to make explicit our understandings, beliefs, biases, assumptions, presuppositions and theories' (van Manen 1990/1997, p.47). He continues:



We try to come to terms with our assumptions, not in order to forget them again, but rather to hold them deliberately at bay and even to turn this knowledge against itself, as it were, thereby exposing its shallow or concealing character (van Manen 1990/1997, p.47)

It is through such a process that the conscious experience can be seen stripped of the world's 'taken for granted' reality. In such a state it seeks to achieve a dual state of conscious awareness and reflective consciousness in which the essence of the phenomenon can become apparent. In this way the content and meaning of an experience is gained through both the consciousness directed at the phenomenon and the intentionality of directing such consciousness at that phenomenon.

According to Husserl (1913/1982) every intentionality is comprised of a *noema* and a *noesis*. The former relates not to the real object but the *phenomenon of the object* (for example, not the object but the subjective appearance of the object). The latter relates to the *meaning of the object* as represented by its essential nature. The relationship between the two constitutes the *intentionality of consciousness*.

For Husserl, and indeed phenomenology as a whole, all awareness, be it real, imagined or remembered, is directed at objects. This is distinct from Cartesian traditions that assert that experiences and ideas appear as inferences, hypotheses and models in the 'closed bubble' of human minds rather than through direct contact with objects. In this sense all that is known is by way of mental reasoning from such impressions and hence all that one can be sure of is one's own conscious state that is not shared with others.

Phenomenology, on the other hand, argues that the mind and the world are correlated with one another such that objects do in reality appear to us and for our part we disclose to ourselves and to others the way that things actually are. As a consequence, both visual and emotional responses from experiencing an object provide content and meaning to that experience. In this way the meaning of an object as experienced comprises both its spatial and temporal physicality *plus* the individual's experienced memories, feelings and multi-visual pictures associated with such object. In addition, unlike the Cartesian approach where there is simply awareness, phenomenology offers up a differentiated form of

intentionality correlated with different kinds of objects. For example, our intentioning of museum artefacts is arguably different from that of museum photographs or paintings. While the former is correlated with what Sokolowski (2000, p.12) refers to as '*perceptual intending*', the latter is correlated with '*pictorial intending*'.

Further, the 'behind' and the 'in' of an object, together with those aspects that are directly sensed, provide the '*oneness*' of the object which is given to us. Using the example of a cube, Sokolowski (2000, p.17) posits that the individual experiences more than what is visible to the eye. Those sides that are currently seen are surrounded by a 'halo' of sides which are potentially visible but actually absent. In their absence those sides are also given and as such form part of the experience. As a consequence, objectively, the cube is a blend of what is present and what is absent while subjectively one's perception of it is a blend of those parts that are *intended as present* and those that are *intended as absent*. Moreover, Sokolowski (2000) contends that its identity is more than just the sum of its facets which it offers for perception. Rather, it can be intended *in toto*, in its continuous flow of facets that can be perceived as being 'of' a single cube. In so doing, the cube, as given, can be described with a deeper intentionality of conscious experience than merely a series of impressions that was implied in the discussion of intentionality above.

The phenomenological approach is therefore achieved by attempting to put aside all pre-existing knowledge, attitudes, ideas and experience of the phenomenon such that it is approached as a 'blank sheet' the researcher is able to distil the essence of that experience and thereby examine the structure that constitutes it (Crotty 1996). According to Husserl (1913/1982) the structure can comprise such elements as fantasy, imagination, memory, emotion and action.

### **Memory and Imagination**

Perception, with its blend of presences and absences, wholeness and parts, identity and totality presents objects directly to us but it is not the only means of doing so. According to Sokolowski (2000), remembering also presents

appearances by which an identity is given to us or an absence is evidenced. However, such memories are not a record of images of things perceived at one time but rather constitute perceptions we once lived through. Thus, it is perceptions that are recalled in memories not images.

As a consequence objects are remembered when perceptions of conscious experiences are recalled, relived and re-enacted. Through this process of reliving previous perceptions the past is deemed to 'come to life' from absences that are very different from those involving perception. In this case the absence cannot be resolved by assuming another perspective (for example turning the cube to expose the otherwise hidden facet). While perceived objects represent only the 'here and now', such remembered objects are represented by *both* the 'there and then' as well as the 'here and now', but only as something past (Sokolowski, 2000, p.68). It is in fact only through such memories that the past is phenomenologically understood in terms of present day objects and events.

While perception comes with the belief in how things are and memories come with the belief of how things were, imagination suspends belief and examines how things could be. With imagination, one is mentally displaced from the current 'believed-in' world to a world of fantasy while physically continuing to exist in the former world. However, some imaginings are more grounded in reality than others (for example imagining visiting a museum as a means of planning an actual visit). As such, imaginings are the reverse of memory in that, rather than reliving a past experience, one is 'living in' an anticipated one (Sokolowski 2000, p.68-72).

### **Introducing Heidegger**

Martin Heidegger sought to examine the nature of being by asking the question 'What does it mean to be?'. His attempts to answer that question consumed him for the remainder of his intellectual life.

Beginning with his revolutionary, convoluted and many would say brilliant treatise *Being and Time* (1927/1962/1997) and continuing with his essays on art, science, poetry, language and technology, Heidegger sought to move

beyond previous ontological thinking to what he termed *fundamental ontology*. Contrary to those who considered human beings as 'thinking things' independent of, and separate from, the world, Heidegger considered such 'objectivity' to be fallacious. How, he claimed, can one be outside of the world and yet existing as part of it from birth? From this point he constructs his distinction between *being* and *Being* which acts as the foundation of his whole philosophy. While a being (entity) infers anything that has some form of existence, 'Being' refers to the essence or primordial condition that allows everything in the universe to come into existence (Watts 2001). Thereby, he is reflecting the pre-Platonic meaning of the Greek word for 'being', *parousia*, relating to the infinite sense of 'to be' rather than the meaning assumed by Plato and others which related to the nominal sense of 'substance' (a deviation which, according to Watts 2001, p.11, led to Plato's *idea*, Aristotle's *substance*, Descartes' *God* and Husserl's *pure consciousness*).

While making a distinction between being and Being it should, however, be noted that the two are inseparable. Just as there can be no being without the basic fact of existence, Being could not be evidenced if it were not for beings who exist as a consequence of it. The distinction between these two terms, Heidegger refers to as an *ontological difference*. Although Being is hidden within the beings and things which it has created, it can be revealed by sufficiently deep ontological thought by which the being becomes what he refers to as a *clearing* or open space in which the true nature of Being will spontaneously reveal itself (Watts 2001). More so, such revelation of our Being is constituted not only by the present but also by the past and the future. Consequently, the past is alive in the present in the sense that it is responsible for bringing one to the current moment of time while the past and present combine to both create and limit one's future possibilities. Furthermore, the future exists in the present as it is the cognizance of future choices that influence current actions and influence the person that one is. As a result the past, present and future are unified and indivisible with the significance of existence only emerging in terms of the 'unfolding' process of life from what has been to what is yet to be.

Fundamental to Heidegger's philosophy is his concept of *Dasein*. Recognition of the root meanings of *da* ('there') and *Sein* ('being') indicates its meaning to be 'being there', the second word referring to the world and the unique potential that humans have to understand it (Watts 2001). In what might be considered to be a somewhat ad hominem approach he continues in his later writings that *Dasein* is in fact the 'guardian' of Being without whom all entities, and indeed Being itself, would cease to exist by virtue of the fact that there would be no one to comprehend them.

According to Heidegger, the world that *Dasein* inhabits is the totality of one's particular life situation including nationality, occupation, culture, family, interests etc. Consequently, any particular *Dasein* will be enmeshed in, and take its essential meaning from, its particular world. This approach very much differs from other philosophers who attempt to remove individuals from their world in order to understand their essence or 'pure consciousness'. Hence one of the principal characteristics of *Dasein* is *Being-in-the-world*. By way of this state *Dasein* experiences and makes meaning of the world through mood and through understanding of its practical involvement with entities in order to accomplish its goals.

Such *Being-in-the-world* for *Dasein* is, however, different from that of the Being of non-human entities. In order to differentiate their non-human forms of existence and their respective relationships to *Dasein*, he uses the terms *ready-to-hand* where the entity is considered to have a useful function for *Dasein* and *present-at-hand* where there is no particular use or interest (Watts 2001). In those situations where it is *ready-at-hand* it is referred to as *equipment* and is said to exist within a *network* of related entities (for example the artefacts of a particular museum). Where the item is broken or unusable it is considered to be *unready-to-hand*. Heidegger makes the point however that an entity can change from one condition to another depending on the requirements of a particular *Dasein*.

Also fundamental to Heidegger is the importance of *moods* in the life of *Dasein*. In fact they are 'a primordial mode' of *Dasein*'s Being and as such disclose *Being-in-the-world* to *Dasein* (Watts 2001). In so doing, he distinguishes moods

from emotions which he considers to be directed at something or someone rather than 'Being-in-the-world as a whole'. In addition, whilst emotions are 'triggered' by environmental circumstances, moods appear and disappear 'as they please' such that they are generally uncontrollable. As primordially essential to Dasein's character, Heidegger posits that moods are ever-present such that Dasein is never 'moodless'. Indeed, it is through such continuous 'moodiness' that we view the totality of our existence in a particular way which in turn affects our emotions and behaviour.

Just as moods speak to the nature of this study, so too does the concept of *understanding* (represented by the German word, *verstehen*). Heidegger contends that things are understood by allowing them to be involved in the possibility of one's own Being (Watts 2001). The principal quality of understanding is therefore to see and recognise future possibilities that provide meaning. By means of clarification, Dasein does not *have* possibilities but rather *is* possibilities such that the individual can be described by way of what they are yet to become. To become what we are, however, requires *interpretation* or a conscious working through of the possibilities that are made known to us through understanding. In this sense Being can be viewed as an 'ability-to-be' or 'can be' (Polt 1999).

As one projects possibilities for oneself, one also discloses other non-human entities in their possibilities. Any such entity is interpreted by means of its *as-structure* of usefulness in terms of the possibilities that it provides to Dasein. Heidegger calls this interpretation 'in order to' such that an artefact would be in a museum in order to educate visitors (Watts 2001, p.42). The interpretation of the practical as-structure of items in the environment is in fact the way that Dasein understands the contextual web of interconnectedness that exists between those things that are *ready-to-hand* (Watts 2001, p.28).

Heidegger views such *meaning* in terms of understanding and interpretation (Watts 2001, p.43). It provides the context for the accessing of an entity by way of the possibilities that are projected onto the entity. In other words, it is the possibilities that the individual projects that gives a thing meaning and thereby allows the individual to understand and interpret the entity. Without a sense of

such possibilities, the entity would have no meaning to the individual, who thereby would be unable to understand and interpret it. Moreover, Heidegger contends that it is by way of entities revealing themselves that the individual gains an understanding of their own possibilities.

But perhaps the most pertinent aspect of Heidegger's analysis in terms of this study is his concept of *truth*. If philosophy is the search for truth then Heidegger's investigation of the meaning or essence of truth as existing independently of, and prior to, any of the criteria by which we might currently prescribe to it reveals a nature very different from other philosophers before him. Indeed it is truth, as he sees it, that is the foundation of all knowledge.

Like so much of Heidegger's work, his point of departure begins in the ancient Greek, in this case the word *aletheia* whose original meaning is *unconcealment*. Truth is thereby viewed not as the somewhat elementary relationship between a statement and its representational equivalent but rather as a deeper and more primordial process whereby the meaning of an object or event is revealed. Such disclosure is the essence of truth and hence for us to really know or experience something it must first be revealed. Initially, Heidegger considered that both the means and place of such revealing is exclusively in Dasein as it is Dasein's existence and practical experience that is required to bear witness to the meaning that arises by virtue of the ontological truth of its unconcealment. In his later writings, however, he viewed the vastness of Being to be the *clearing* or *field of relatedness* in which revealing and interrelatedness can occur as an infinitely complex area of possibilities (Watts 2001, p.62,63).

However, more than just unconcealment, Heidegger also viewed the concept of *aletheia* to also incorporate *concealment*. By way of explanation, the revealing of an entity in a particular fashion prevents its simultaneous revealing in another way, meaning that such other way must necessarily be concealed. More so, the revealing need not be bipolar but rather can be achieved in degrees such that its truth emerges gradually and its true nature becomes increasingly apparent. To Heidegger such process of unconcealment and concealment *is* the truth of Being and that which is being revealed and

unrevealed is the *essence* of that entity, namely its Being (Watts 2001, p.62,63).

In reference to the term essence Heidegger uses the rather archaic German word *wesen* meaning to 'essentially unfold' (Polt 1999). Rather than implying some form of everlasting core or universal property, the German word simply suggests the way something is actually happening. Heidegger also uses the word to refer exclusively to Dasein and hence to discussions on the nature of Being. In this sense, Being essentially unfolds so that it is seen not as entities but as *differences* by which entities can be taken-for-granted. In this way, *wesen* might reasonably be considered as a *process* rather than implying some form of physicality.

Thereby Heidegger departs from the viewpoint of Husserl whose essences and consciousness were less about human experiences of everyday life and more a cerebral reconstruction. On the contrary, Heidegger considers consciousness and essences not as something separate from human existence but rather immersed in it, his Being-in-the-world. Moreover, such Being represents an absolute that is beyond the essences of Husserl's endeavours. Heidegger contends that the phenomenological reduction that Husserl craved is, at least in a complete sense, impossible as one's existence and the world are inseparable. Similarly, one's conceptualisation of any essences is affected by such existence, and intentionality is simply a function of involvement in the world rather than involving a process of bracketing as required by Husserl.

### **Heidegger and Museums**

Whilst Heidegger has little to say about museums directly he does have something to say about technology in a way that has a natural resonance for museums.

In his 1953 lecture, *The Question Concerning Technology*, he sought to address the issue of the relationship of humans with technology by attempting to reveal the essence of technology. In so doing he wished to make it clear that 'technology is not equivalent to the essence of technology' (Heidegger 1954/1977, p.311). By way of explanation, he refers to the *ontic* of factual



observation versus the *ontological* of phenomenological description of the deep structures that underlie and explain the ontic. As such, Heidegger views technology as more than the artefacts and activities of the ontic but rather the framework of possibilities that constitute the essential nature of technology and need to be revealed. It is this distinction that allows him to divorce the concept of substance from that of reality in such a way that he can claim that the essence of technology actually existed before whatever appeared by courtesy of the industrial revolution of the seventeenth and eighteenth centuries (Guignon 1993).

If technology as we know it represents only a means to an end rather than revealing the true nature of technology, as Heidegger suggests (Watts 2001, p.84), what, one might ask, is the purpose of a museum of technology with its interactive exhibits beyond just stimulating, entertaining and producing revenue? Part of the answer appears to lie in the nature of such 'interactives' which, rather than trying to change the world as does technology itself, are attempting to change perceptions of how the world works. The existence of Dasein within a world of technological possibilities enables the museum designer to fashion an object from what Heidegger refers to as the *standing reserve* of materials that demonstrates some aspect of science and technology; in other words, that in part reveals the Being thereof. Thereby, the interactive is constructed in order to encourage reflection upon the essence of technology rather than the technological objects themselves that are manufactured to serve some objective extrinsic of itself.

Continuing in the same vein, Heidegger's (1935/1977) lecture series *The Origin of the Work of Art*, not only focuses on the ontology of art but also on how the meaning of art might become known through one's experience with it. To do so he reverts to the concept of *aletheia* and the struggle between the revealed and the hidden referred to above. Heidegger suggests that a work of art opens itself up and partly reveals its Being in a way that can be experienced. As such he contends that the meaning of a painting of a pair of shoes by Van Gogh extends beyond just the normally perceived properties. More so, their depiction represents an unconcealment of both their function *and* the world of their

wearer. In Heidegger's (1935/1977, p.159) own rather romantic words he posits their possible existence as follows:

From the dark opening of the worn insides of the shoes the toilsome tread of the worker stares forth. In the stiffly rugged heaviness of the shoes there is the accumulated tenacity of her slow trudge through the far-spreading and ever-uniform furrows of the field swept by a raw wind. On the leather lie the dampness and richness of the soil. Under the soles stretches the loneliness of the field-path as evening falls. In the shoes vibrates the silent call of the earth, its quiet gift of the ripening grain and its unexplained self-refusal in the fallow desolation of the wintry field. This equipment is pervaded by uncomplaining worry as to the certainty of bread, the wordless joy of having once more withstood want, the trembling before the impending childbed and shivering at the surrounding menace of death. This equipment belongs to the earth, and it is protected in the world of the peasant woman.

In this way the essential *reliability* of the shoes is revealed. Regarding this novel property of the artwork Heidegger (1935/1977, p.161) states:

This painting spoke. In the nearness of the work we were suddenly somewhere else than we usually tend to be. The artwork lets us know what shoes are in truth...(not us) projected it onto the painting...But above all, the work did not, as might seem at first, serve merely for a better visualizing of what a piece of equipment it is. Rather, the 'equipmentality' of equipment first expressly comes to the fore through the work and only in the work.

Referring to the relationship between art (the Greek word *techne*) and the viewer, Heidegger (1935/1977, p.199) states that 'a work is in actual effect as a work only when we remove ourselves from our common-place routine and move into what is disclosed by the work, so as to bring our own essence itself to take a stand in the truth of beings'. Art must therefore provide a different form of understanding to that of everyday existence; it must allegorically and symbolically manifest more than just itself. It must reveal at its core something that is new and suitably complex such as values and identity and must encourage reflection more than what is simply perceived by the senses.

Perhaps the closest that one gets to Heidegger's (1935/1977) view of a history museum is his description of the Aegina sculptures in Munich. Here he considers them having been 'withdrawn from their own world...Their standing before us is still indeed a consequence of, but no longer the same as, their former self-subsistence' (p.166). However, the work-being of the object is not

entirely lost, for now 'The work belongs, as work, uniquely within the realm that is opened up by itself. For the work-being of the work occurs essentially and only in such opening up...When a work is brought into a collection or placed in an exhibition we say also that it is 'set up'...What does the work, as work, set up? Towering up within itself, the work opens up a *world* and keeps it abidingly in force' (p.169) (*italics in text*).

### **Phenomenology and Learning**

For Husserl (1967), the natural world provides the context in which learning, as an everyday experience, occurs. When conscious in this setting we are constantly exposed to a vast amount of information from which we learn from our experience the identity, cause and use for things. In so doing, Merleau-Ponty (1962) argues that the learner and the world are intertwined and interdependent. All experience requires an engaged mind that 'reaches out' to the world as well as a body which lives the experience. All actions, thoughts, behaviours, motivations, emotions and attitudes are hence situated in the learner's world of which (s)he is a part. 'The learner, as a physical presence and as an active mind that attempts to grasp the meaning of the world, is seen as inseparable from his/her lived world' (Papadopoulou & Birch 2007). Such unity is described not only by the term *Being-in-the-world* as noted above but *Being-in-the-world-with-others* (Heidegger 1935/1977). According to the concept of intentionality the conscious mind is always *conscious of something*. It follows, therefore, that learning is the result of the connection between the conscious mind's intentional acts and that which is the object of its consciousness.

In the everyday world, individuals perceive things differently according to their past experiences, attitudes, interpretations, emotions, beliefs and often personal and socio-cultural relationships. Therefore, the learner's *Being-in-the-world* and *Being-in-the-world-with-others* is governed by the same personal factors, meaning that the individual's intentionality of consciousness is governed by their relationship with the world. This, in turn, influences the mode of engagement and the learning experiences (Papadopoulou & Birch 2007).

Merleau-Ponty (1962) further comments on the phenomenology of learning by returning to the concept of intentionality of which he believes there are two forms. The first, termed *intentionality of acts*, are conscious, voluntary, explicit and cognitive in nature. The second, *operative intentionality*, is often less clear, more felt and implicitly intuitive. Its function is to induce an understanding of the world that is 'right' for one's particular being and as such sets the mental construct and motivation for learning. For example, one might cognitively decide that a leisure experience is desired and emotionally feel that a museum visit would be a fun thing to do. Both forms of intention work together and are necessary preconditions for any form of learning engagement to occur.

Campbell (1997), Chodorow (1999), Denzin (1984) and Jagger (1989) all refer to emotions and their accompanying phenomenological states of feeling as integral to the process of learning as they describe the meaningful connections within the experience. Indeed, Arnold (1970) considered that valenced feelings accompany not only learning but all our lived experiences, a contention with which appears to resonate with Heidegger's concept of moods.

### **Phenomenology and Emotion**

The great Russian acting teacher, Stanislavski (1936, p.158) almost poetically conceives of the phenomenology of the emotional experience, thus:

Emotion is a lived, believed-in, situated, temporally embodied experience that radiates through a person's stream of consciousness, is felt and runs through his body, and, in the process of being lived, plunges the person and his associates into a wholly new and transformed reality - the reality of a world that is being constituted by the emotional experience.

In defining emotions in a phenomenological fashion, Denzin (1984, p.3) is unequivocal:

*Emotions* are self-feelings. *Emotionality*, the process of being emotional, locates the person in the world of social interaction. *Self-feelings* are sequences of lived emotionality, often involving the feeling and experiencing of more than one specific, named emotion. Such experiences always have self-referents; that is, they refer back to the self of the person who feels them (*italics in text*).

It is perhaps the distinctive feeling states of emotions, together with their charged positive or negative valences, that best form the basis of the relationship between the two concepts. For example, one can readily recognise the phenomenological state of ‘throbbing’ associated with the emotion of anger and the feeling of ‘headiness’ associated with the emotion of excited exhilaration. As stated by Gunther (2004, p.44): ‘the knowledge we have of our emotional life is partially based on the knowledge of our feelings. By introspecting on what we feel, we learn to recognize what emotional attitude we’re experiencing (even if we aren’t sure what the emotion is an emotion of)’ (parenthesis in text).

In terms of this self-referential nature of emotions, Heidegger (1927/1962/1997) posits that the phenomenon of feelings have a threefold structure namely; a sensed awareness and definition; a sense of the self feeling the feeling; and a sense of the inner deep feeling self through having this experience. In the words of Denzin (1984) ‘Feelings disclose the person to himself (p.137)...*Emotionality is a circular process that begins and ends with the transactions and actions of the self in the social situation interacting with self and others*’ (p.57) (italics in text). In this sense, he considers self ‘not a thing or a substance. It is that structure of experience that I call mine’ (Denzin 1984, p.51).

In addition, emotions also have *intentionality*. Unlike mere qualitative states (for example, comfort) they are always directed *at* something or someone. Similarly, phenomenology is always intentioned as a consciousness or experience *of* something. Gunther (2004, p.47) stresses the intimacy of connection between emotional phenomenology and intentionality by stating that ‘the intentional content (of emotion) is imbued with the phenomenology and is experienced as an indissoluble aspect of it’ such that ‘if two emotions have different contents (that is, intentionalities) they will have different phenomenologies (and) if two emotions have different phenomenologies, they have different contents’ (p.49) (parenthesis not in text).

In terms of comparability it should also be noted that emotions have, according to appraisal theory, cognitive preconditions that appear, in a sense, to reflect

the pre-reflexive characteristic of phenomenology. Such duality of cognitions and emotions is described phenomenologically by Denzin (1984) in terms of the fact that they are always interrelated and present in the individual's streams of experience. By way of description, the individual cognitively interprets a situation in part by summoning inner self-feelings. These in turn elicit thoughts about the feelings that are being felt. Such cognitions are, however, thought through what Denzin (1984, p.143) refers to as 'the veil of feelings' just as feelings are felt through the 'screens of cognition'. From this description of the phenomenological state of emotion, Denzin (1984) defines the *essence of emotion* to contain certain critical elements, namely stream of consciousness, situation, time, person, associates, reality, and world. Each of these is discussed further below.

Husserl (1913/1982) considered that the *stream of emotional consciousness* consists of an inner phenomenological dimension and an outer interactional dimension which is intentional in that it is directed at an object or a set of objects. Mead (1938) suggests that such emotional consciousness assumes the form of an 'inner conversation' between the individual and another person, situation or object forming the basis of tensions within the consciousness. Such streams of inner emotional thoughts are not made in isolation but rather are set against a background of previous thoughts and feelings.

Once an emotional thought is finished, its meaning, being a condensation of the thought about the feeling, remains as a particular word, phrase or image (for example, envy or hatred). It is this meaning that is, when summoned consciously or unconsciously, reconstructed according to Stanislavski's (1936) concept of *emotional memory* and felt anew. Such memory occurs through the inner stream of emotional consciousness that involves a fluid interaction between the thoughts individuals have about their feelings and the feelings they have about their thoughts.

The second critical element of emotion in phenomenological terms is the *situated nature of its self-feelings*. While emotions exist in the stream of emotional consciousness, Denzin (1984) suggests that they exist in frozen moments of time, space, and being; as a 'single slice of emotional experience'

(Denzin 1984, p.77). In so doing they occur in the interface between the individual and the world-at-hand where the former is carrying out their transactions in the latter. The place where the individual was previously acts as a 'past of feelings' with respect to the thoughts and emotional consciousness of himself in the current world-at-hand. More so, by being in the current place the individual changes both himself and the place, and in turn the place changes him. As a consequence, the individual, the emotion, the consciousness and the situation together become as one, in a sense permanently captured in a moment of time and space that becomes part of that individual's emotional memory (Denzin 1984, p.79).

The third element suggested by Denzin (1984) refers to the *temporality of emotion*. While individual emotions exist as frozen moments, they are in fact part of a succession of events within the continuity of time in the on-going stream of experience (Husserl 1913/1982). In this sense they can be likened to a strip of movie film that appears as continuous but is in fact individual frames of frozen action and felt emotions. But in this case the stream of consciousness is circular, consisting of an internally and externally continuous past, present and future in which the individual experiences his emotional consciousness. 'What is felt now is shaped by what will be felt, and what will be felt is shaped by what was felt' (Denzin 1984, p.79).

The fourth element is that of the *person*. 'Phenomenologically, a person is a feeling, thinking, accomplished structure of practices embodied and located in the world' (Denzin 1984, p.81). The person occurs at two levels. The first is a superficial taken-for-granted level where s/he is assumed to be real and substantial. As suggested by Heidegger (1927/1962/1997), the self is at the centre of this everyday taken-for-granted person and as such is always just ahead or just behind the person, being situated in the circular temporality referred to above. In other words, the self is part of both the inner and outer streams of consciousness. However, 'The self, the 'I', is not a thing but, rather, a process that unifies the stream of thoughts and experiences the person has about himself around a single pole or point of reference' (Sartre 1957, p.60). This stream, which is interwoven with the self, consists of the frozen moments

of action, thoughts and feelings (noted above) that become part of the person's biography through the process of reflection (Sartre 1957; Schutz 1964).

The fifth element is that of *emotional associates* who are drawn into the emotional world of experience of the individual. Denzin (1984, p. 93) defines emotional experiences as 'social experiences and require the presence of 'others' (real or imagined) for their occurrence' (parenthesis in text). Consequently, emotional associates are important in the emotional experience of the individual in that they help to give it meaning, order and significance.

The sixth critical element of emotion is that of *emotional reality*, referring to the absolute reality of emotion as it is lived by the individual. The emotionality of the experience is engulfing, takes charge of one's attention, carries one along and is not readily displaced. The emotional consciousness captures the individual within the emotionality of the experience-at-hand (Sartre 1939/1962).

Denzin's seventh and final element is this *world of emotion* with its separate reality which is embedded in, but distinct from, the everyday-life world. In the world of emotion, inner meanings and feelings are revealed whereas in the taken-for-granted world they are hidden or glossed over. Likewise, emotions in this world cannot be disregarded as unimportant. Rather, they make the meanings and assumptions of the everyday world redundant. More so, Denzin (1984) contends that meanings given to objects in the world of emotion cannot be gleaned from the surface appearances or meanings given to them in the everyday world. In the world of emotion, meanings have to be sought within the emotional biography of the individual.

In terms of the phenomenological structure of emotional experience Denzin (1984) contends that it has two elements, namely an essence being the *core of the experience* as named and recognised by the individual according to everyday language (for example, rage, joy) as well as *encircling spheres* of feelings, thoughts, memories, meanings and emotions that surround the core. Such a double structure is said to account for the different layers of emotional consciousness that are experienced as an individual approaches the consciousness of particular emotions (for example, anger, fright) as well as



moves away from the consciousness of other emotions (for example, boredom after victory).

That is, the experiencing of a particular emotion takes the individual through its horizon of other emotions towards its core, and back out from the core through the same horizon. Thereafter the individual often moves forward into the new horizon of another emotion and a new stream of emotional consciousness. In so doing, the emotions that are passed through can replace, dilute or refine the emotional consciousness of the core emotion that is being approached.

In summary, 'every emotional experience carries elements of earlier experiences with the emotion in question' (Denzin 1984, p.100). As a consequence of this model, emotions are not experienced in isolation, but rather as part of a complex structure of feelings, thoughts and emotions that make up the individual's emotional consciousness. In certain cases it might be that the horizon of meanings and emotions that surround a particular emotion are more important to the individual's understanding that emotion than the emotion itself:

Emotional self-feeling is the essence of emotional consciousness. In emotional experience persons find and feel their innermost moral feelings as persons. In these inner feelings they locate and feel themselves as distinct moral objects (Denzin 1984, p.102).

With respect to the thematic analysis provided previously in this study the themes might be viewed as 'the structures of experience' (van Manen 1990/1997, p.79) for the emotional experience but are not in and of themselves that emotional experience. In other words, both the major themes and the attendant categories can be considered to provide a construct in which the *feeling states* of Denzin (1984) can be evidenced and the associated particular emotions identified. For example, the theme of *Knowingness* exposes, in certain cases, a feeling state of *sympathy* with subsequent emotions of *sadness* or *loss*. Likewise the theme of *Imagination* can, under certain circumstances, evidence a feeling state of *empathy* which itself induces an emotional reaction of, for example, *depression* or *anger*.

## Phenomenology and Self

In his treatise on the phenomenology of self, Sokolowski (2000) complements the considerations of Heidegger (1927/1962/1997), Sartre (1957) and Denzin (1984) by arguing there exists an ambiguity between that which inhabits and interacts causally with the ordinary world, the so-called *empirical ego*, and that to whom everything in the world is manifest, the agent of truth, responsible for rational judgements and verifications, which he terms the *transcendental ego*. By way of the transcendental ego, knowledge is represented by logical reasoning as 'a dimension that underlies and hence transcends the empirical' rather than as a matter of empirical fact (p.114).

As agents of truth and meaning, individuals enter into the domain of the rational in which they transcend their subjectivity. In this space, knowledge can be viewed as external of biology and psychology such that issues can be communicated to others, can be recorded, debated, confirmed or disconfirmed. They have substance outside of the subjective by which objective knowledge can be rationally 'transacted' by the transcendental self. In summary, it is the transcendental ego that is the agent for reason and truth, both practical and theoretical; and it is phenomenology that examines such ego in terms of both its intentioning and that which is intentioned (Sokolowski 2000).

Moreover, the transcendental ego is involved not only in identifying truth but also expressing and acknowledging itself by means of such identification. In an example particularly pertinent to this study, Sokolowski (2000) contemplates the photograph of a young British soldier later killed in the First World War. His death marked not simply a re-altering of chemicals or the termination of an organic being but the life of reason that would have subsequently occupied him and those with whom he would have come into contact should he have survived. Such transcendental self behind the picture represents someone who once could remember, imagine, anticipate, experience, debate, confirm, infer, love and be aware of himself doing so; someone who could understand and express his transcendental ego by way of declaring meaning and truth by virtue of his rational interpretations.

In this sense the phenomenological attitude can be deemed to be that which contemplates and describes the transcendental ego in terms of such interpretations. In the words of Sokolowski (2000, p.122) it examines 'how the ego establishes and presents itself, to itself and to others, as an agent of manifestation.' Through such a process of reflection, the philosophical self is made evident. However, this is not to say that the transcendental ego is only represented in the philosophical attitude. Rather, any exercise of rationality, both in the natural and philosophical worlds, is viewed as the work of this ego. The difference lies in their respective degrees of reflection. In the former the individual operates according to truth; in the latter the individual contemplates truth. It is in this attitude that the individual reflects upon both his views of truth and himself as having those views. In doing so the ego identifies both things in the world and itself in relation to such things not only as cognitively experienced but also as remembered in the past and imagined in the future.

Finally, it should be noted that in the phenomenological attitude the self is not separate from such cognitions, memories and imaginings but rather is constituted by same. As such it operates in the 'space' between its perceptions of its current self and its remembered earlier self, between its present self and its future imagined self, between the self in its current body and the self in its earlier body. More so, it is such self which, in deliberating situations, considers its outcomes back in time by way of memories and forward in time by way of imaginings. In addition, it holds attitudes, beliefs and values about the way things are which it uses to interpret situations and evaluate outcomes. Should it alter such interpretations, or indeed the attitudes, beliefs and/or values that underpin them, the self understands itself to have changed by virtue of such alterations (Sokolowski 2000).

### **Phenomenology and Interpretation**

With respect to phenomenological interpretation, Silverman (1984) makes a distinction between that which is purely descriptive of lived experience and that which is hermeneutic in terms of interpreted experience via a text or some symbolic form. Somewhat less prescriptively, Gadamer (1975) offers two forms of interpretation, both phenomenological, namely a *pointing to* and a *pointing*

*out*. While the former refers to an interpretation involving a revealing of what the thing already points to, including that which it conceals, the latter pertains to an interpretation of the essential meaning of the thing. As such, interpretation involves both description and hermeneutics and in this sense appears closely related to the form of description proffered by Husserl and Heidegger noted above.

The situation appears somewhat more complex when the thing is itself an interpretation, for example a painting of object or the label of a museum exhibit. In these cases Gadamer (1975) notes that such interpretation is actually an interpretation of an interpretation. In response, van Manen (1990/1997) suggests that phenomenological text is both descriptive, in that it allows the object to show itself, and interpretive in the sense that it 'mediates' between the interpreted meaning and the thing which is the object of such interpretation. Again in the museum setting, this distinction suggests a process of negotiation between the interpretation of the object by the museum and the interpretation initiated by the visitor. In this sense it echoes the form of interpretation referred to by Hooper-Greenhill (2004) who distinguishes that which is done by the museum attempting to forge links between the object and the visitor in a way that they might understand, and the interpretation that the visitor undertakes themselves.

### **The Phenomenological Method**

The emphasis in phenomenological enquiry is always on trying to determine the nature of the phenomenon as an essentially human experience; in other words, the meaning of the lived experience. As van Manen (1990/1997, p.36) notes:

The aim of phenomenology is to transform lived experience into a textual expression of its essence - in such a way that the effect of the text is at once a reflexive re-living and a reflective appropriation of something meaningful: a notion by which a reader is powerfully animated in his or her own lived experience.

Thereby the writer reminds us that the word 'essence' should not be viewed as some ultimate core or residue of meaning as its colloquial use might infer, but

rather be considered as a linguistic construction that relates to the structure of a lived experience in such a way that its nature and significance is revealed in a meaningful way. Thereby, it is both a phenomenological and hermeneutical study of human experience - phenomenological in the sense that it is the descriptive study of lived experience (that is, the phenomena) in order to determine its meaning, and hermeneutical in terms of its interpretations of the expressions and objectifications of lived experience in order to determine the meaning embodied therein (van Manen 1990/1997).

The resultant hermeneutic-phenomenological approach provides the means of accessing the phenomenon and an entry point into the *hermeneutic circle* (Heidegger 1927/1962/1997). The hermeneutic circle posits an approach whereby the researcher continues to engage with the object under investigation such that it is repeatedly shaped by the research method which in turn is moulded in order to better fit the phenomenon as it emerges. In the words of Fischer (2006, p.185): 'For a method to submit properly to the hermeneutic circle, the researcher must allow the method to remain pliable enough that it can be moulded to fit better the phenomenon under investigation.' This process represents the essence of the 'dialectical' approach to research that defines the hermeneutic-phenomenological method.

Providing an operational heuristic to the enquiry, van Manen (1990/1997, p.30) suggests a dynamic interplay between six fundamental research activities, namely:

1. *Turning to the nature of lived experience.*

The phenomenological researcher is driven by an abiding desire to determine the nature of a phenomenon - 'to find out what it's really like'. It involves him thinking deeply and unwaveringly about it, returning to it again and again until it begins to reveal its essential nature, and finally envisaging a singularity of interpretation which is that of the researcher themselves. In terms of this study, the primary question regarding the essential structure of the museum learning experience has been clearly stated and will continue to act as a focus for the analysis to follow.

## 2. *Investigating the experience as we live it.*

Turning 'to the things themselves', in German *Zu den Sachen* (Husserl 1911/1980, p.116) involves no less than a re-awakening of one's basic experience of the world (Merleau-Ponty 1962). It calls on the researcher to experience the phenomenon deeply in order that it might be fully understood in all its modalities and aspects. To achieve this van Manen (1990/1997) endorses rigorous interviewing which he considers can be used both as a means of gathering and exploring the experiential narrative as well as a means of determining the interviewee's own interpretation of the meaning of the phenomenon. In so doing he is supported by Marshall and Rossman (1999, p.61) who see in-depth interviewing of a few individuals as 'the primary strategy to capture the deep meaning of experience in their own words...and often over time.' According to Grbich (2007) such interviewing can involve non-structured, open-ended questions that lead the respondent into a full and detailed description of their experience.

## 3. *Reflecting on essential themes.*

This involves the researcher moving from the initial description of the phenomenon, followed thereafter by interpretation and finally to one of reflection. As indicated by van Manen (1990/1997), a true reflection is not simply a grasp of the facticity of an experience but rather it is the thoughtful contemplation of that which gives the experience its particular significance. In order to achieve this he refers to *thematic analysis* as 'the process of recovering the theme or themes that are embodied and dramatized in the evolving meanings and imagery of the work' (p.78).

These themes, van Manen (1990/1997) contends, are not evidenced by such techniques as word counts or coding of selected terms. Rather, they are sourced through 'a process of insightful invention, discovery or disclosure' (p.79) designed to 'make meaning' or 'sense' of the lived experience, a process noted above as 'phenomenological reduction' (Creswell 1998). Somewhat poetically he suggests:

(P)henomenological themes...are more like knots in the webs of our experiences, around which certain lived experiences are spun...(they) are the stars that make up the universes of meaning we live through. By the light of these themes we can navigate and explore such universes (van Manen 1990/1997, p.90).

Thereafter the researcher uses *imaginative exploration* to determine 'all possible meanings and divergent perspectives' (Creswell 1998, p.150). 'In determining the universal or essential quality of a theme,' continues van Manen (1990/1997, p.107) 'our concern is to discover aspects or qualities that make a phenomenon what it is and without which the phenomenon could not be what it is.'

As a consequence of these processes, Moustakas (1994) contends that the interrelationship between the conscious description of the experience and the underlying dynamics that account for the experience enable an understanding of the essence of that experience.

#### 4. *The art of writing and rewriting.*

In terms of text and language, van Manen (1990/1997, p.111) states:

Creating a phenomenological text is the object of the research process...the phenomenological method consists of the ability, or rather the art of being sensitive - sensitive to the subtle undertones of language, to the way that language speaks when it allows the things themselves to speak. This means that an authentic speaker must be a true listener, able to attune to the deep tonalities of language that normally fall out of our accustomed range of hearing, able to listen to the way that the things of the world speak to us.

In terms of rewriting he states: 'To be able to do justice to the fullness and ambiguity of the experience of the lifeworld, writing may turn into a complex process of rewriting (re-thinking, re-flecting, re-cognizing)' (p.131) (parenthesis in text). Through such rewriting the researcher can achieve a depth of meaning and understanding that cannot be reached in a single session.

#### 5. *Maintaining a strong and oriented relation.*

In order to maintain a clear orientation with the fundamental research question, van Manen (1990/1997, p.33) states that the researcher must remain focused

and thereby avoid 'wishy-washy speculations...preconceived opinions and conceptions...narcissistic reflections, self-indulgent preoccupations,...taxonomic concepts or abstracting theories'.

*6. Balancing the research context by considering parts and whole.*

Metaphorically, the researcher must consider the 'wood' and not just the 'trees'. Van Manen (1990/1997) cautions researchers to avoid examining the experience in detail while omitting to arrive at the points of revelation. Likewise, one must be cognizant of the whole when giving weight to individual details in order to maintain the correct balance in terms of their contribution to the research question.

**Looking Backward and Forward**

This chapter marked the beginning of a significant shift in the philosophical, epistemological and methodological approaches used thus far in the study.

This was undertaken in order to better understand the central research question regarding the essential structure of the museum learning experience.

The following chapter pursues this new direction by utilising a research method appropriate to the phenomenological collection and analysis of the data in the second stage of the Main Study.



## **CHAPTER 8 : IMPLEMENTATION AND ANALYSIS PART TWO: A Phenomenological Approach to the Data**

### **Introduction**

In this chapter, the inquiry is refocused from a broadly ethnographic perspective of seeking to understand museum visitors as a group to an exploration of the phenomenon of the museum learning experience. As such it re-orientates the direction of the research from explanations of what happened during the 'process of learning' to descriptions of the 'experience of learning'. As a consequence of this shift, the investigation sought to reach a more comprehensive understanding as to the nature of the learning experience than that achieved during the previous two phases of the research.

The chapter commences with an overview of the research using the phenomenological framework of van Manen (1990/1997). It continues with a textual description of the visitation experience to the two Canberra museums as perceived by the researcher. This is followed by a phenomenologically grounded analysis involving a paring back of the interview transcripts into discrete text units from which the themes and their constituent categories of meaning emerge. Thereafter the essences of the experience are identified according to the phenomenological procedures discussed in the previous chapter.

### **Objective**

Following the adoption of a phenomenological approach, the objective of the second stage of the Main Study was the exploration of what van Manen (1990/1997, p.79) refers to as 'the structures of experience' in order to achieve a deeper level of understanding of the learning phenomenon.

### **Participants, Study Sites and Equipment Selection**

The research sample, research sites and research equipment used in the second stage of the Main Study reflected the first stage as detailed in chapter six.

## **Implementation**

### ***Introduction***

In this second stage of the Main Study the turn to phenomenology required a different form of investigation from that used previously.

More particularly, it was necessary to put aside the earlier methods and findings in order that the researcher might approach the phenomenon as if for the first time. As such the explication of the phenomenon of the visit would be only that which presented itself in the words and conscious experience of the visitor (van Manen 1990/1997). Consequently the personal meaning maps previously used to determine learning outcomes were replaced by methods that would explore the structures of the experience. Similarly the recording of tour conversations was discontinued in favour of a singular use of the retour recordings.

According to Grbich (2007), a phenomenological examination should be performed through non-structured interviewing involving open-ended questions that lead the respondent into a full and detailed description of their experience. In this second stage of the Main Study it was determined that such an approach was best achieved with the retour interviews between researcher and individual participants introduced in the first stage. Using this method the language used by participants could be examined and the thoughts and feelings contained within explored in greater depth. In addition, the use of NVivo in the coding and analysis of the data was replaced with a manual process in an attempt to 'soften' the distinction between data and the researcher. The adoption of this more 'intimate' approach appeared successful in terms of the quality of the overall findings.

Diagrammatically the data collection and analysis for the second stage of the Main Study can be represented as follows:

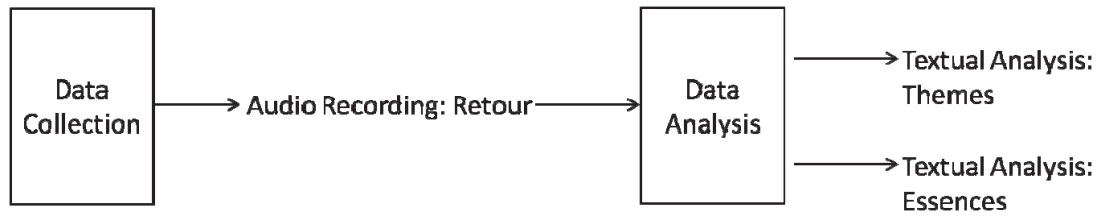


Figure 8-1 Summary of Data Collection and Analysis

Otherwise, the research procedures, including initial participant meetings, having participants visit their museum in pairs, and encouraging participants to roam as they saw fit while attempting to remember what they saw, talked about, thought and felt were continued in this stage of the study.

### **Overview**

The operational heuristic as suggested by van Manen (1990/1997) and referred to in the previous chapter involves a progression through the following stages:

#### *Stage One: Textual Description - Researcher Interpretation*

The textual description provides the researcher's personal interpretation and understanding of the museum visitation experience (van Manen 1990/1997; Moustakas 1994; Creswell 1998). The process of writing and rewriting, and the production of a *thick description* (Geertz 1973) encourages the researcher to think through the experience in detail and remain cognizant of such interpretation as subsequent analyses unfold. This 'reliving' and 'retelling' of the experience immerses the researcher in the phenomenon. Such immersion is central to the understanding of the experience 'as experienced'.

#### *Stage Two: Textual Analysis - Themes*

The initial textual analysis identifies the themes that are deemed to give structure and meaning to the experience (Grbich 2007). As such, that which was thought to be redundant was pared away from that which was considered essential. To avoid any resultant loss of data from this process, care was taken to continually re-engage with the data in search for undiscovered or contradictory categories. Where these were found, the themes were expanded

or modified in order to better reflect the reality of the experience. Thereafter, *imaginative variation* (Creswell 1998, Husserl 1913/1982) was used to explore other possible meanings and divergent perspectives until a final identification of the relevant themes was arrived at.

### *Stage Three: Textual Analysis - Essences*

Following the structural determination of the experience by way of the thematic analysis, a further process of phenomenological reduction and intuiting was undertaken in order to reveal the essences of the visitation experience. By way of this process the manageable 'chunks' of data that results from the thematic analysis are repeatedly examined and a number of essential ideas 'teased out' that are common to all themes. Such ideas, which form what might be termed the 'DNA' of the themes, are so central to the experience that should they be removed the experience as the experience would not be the same (Husserl 1913/1982; van Manen 1990/1997). Once a preliminary number of such essences are identified, they are repeated checked back with the data and refined until a final set are arrived at which are considered to be fully representative.

### ***Textual Description: The Australian War Memorial Experience***

The Australian War Memorial is a sacred, sombre and invariably sobering place. Positioned on a rise in what is otherwise flat surroundings, its exterior architecture is austere. The visitor ascends a wide flight of steps leading to large front doors set between two rectangular columns. The roof is topped with a dome in the fashion of a cathedral suggesting a place of pilgrimage. Located along one side of the main building is a reflective pool protectively holding an eternal flame. Walled cloisters etched with the names of the fallen flank the pool. At one end an unknown soldier lies in a darkened chapel, its walls set with stained glass images.

The visitor enters the softened light of the Orientation Gallery that contrasts with the bright sunlight outside. The mood is reflective. A few exhibits seem to be a preparation for what is to come. The visitor moves from the foyer into the

first display room, a large, airy and well-lit space dedicated to the First World War.

Along the walls and across the room stand a varied collection of exhibits - photos, paintings and artefacts. Designed to draw the eye and encourage examination, the expert modelling of eleven large dioramas display in graphic form the horrors of war on the Turkish beaches and the Western Front. Like three-dimensional photographs each one tells a dreadful story of battle- Lone Pine, Mont St Quentin, Pozières, Somme Winter, Dernancourt, Bullecourt, Ypres, Romani, Excavation of Wounded, Transportation of Supplies, Magdhaba. Photos on the walls capture moments in colourless detail. Slowly but inexorably realization sets in - indescribable conditions - death in the trenches, insanity of the charge, chaos and mud. One almost hears the screams of delirium, the shock of the guns, the cries of pain. The broken items that were once personal and the weapons that once spat death now stand mute. It seems very real, like the displayed letters and diaries of those who lived and those who died.

The visitor leaves these grizzly scenes and enters an adjacent room. A Second World War Spitfire fighter plane announces another time, another war. This 'hero' of the Battle of Britain looks impressively elegant, almost beautiful, its wide wings and slim body still ready for flight. But any sense of the aesthetic disappears with the sound of a mechanical recorded voice overhead declaring to Australians that they were now at war, just like Britain. Around the room are arranged items ready for inspection as they once were in real life - battlefield clothing, army motorbikes, truck-mounted anti-aircraft guns. The Australian Navy exhibits its own stories with models, artefacts and pictured scenes of history and heroism at sea - another kind of battlefield.

The ANZAC Hall is somewhat lighter, emotionally. The 'G for George' Lancaster bomber looks impressive and the flight simulator, which does a good job at re-creating a night bombing over Germany, is almost embarrassingly entertaining.

Adjacent, in a darkened room the floor is washed by a crimson light in the symbolic rising sun of Japanese nationalism. Its eerie glow makes it look forbidding; silent witness to nascent feelings of fear. On one wall a movie is playing; on another imperial artefacts hang. Then there is something more familiar; it strikes a particular chord - Darwin. Part of northern Australia, part of the country's wartime folklore, the stuff of television documentaries and blockbuster movies, the peril that was Japan. Scenes of bombing, how close they came. It's disturbing.

For some they got even closer - prisoners of war. Photographs from the camps tell an evil story; artefacts, diaries and letters tell a worse one. But the worst was Kokoda. The burial ground for Australian and New Zealand POW's under the Japanese. A place, now a legend, loaded with murder and meaning. As if to emphasise the point an almost life-sized photograph hangs to one side - a Japanese officer about to behead an Australian soldier. The blindfolded man kneels on the bare ground, awaiting his fate. A moment in suspended time that is chilling in its certainty.

Rising anger almost makes one feel that the bombings of Hiroshima and Nagasaki pictured following were justified - almost, but not really. The photographs look too ghastly; too many civilians, too much death and destruction. It was, as the thousand paper cranes suggest, an unimaginable evil. But, as also suggested, it brought the war to an end, and with it the celebrations of peace. Photographs and banners are uplifting. The story seemed to have a happy ending, sort of.

Exiting the exhibition brings the comfort of the familiar - the gift shop and the warmth of the Australian sunlight.

***Textual Description: The National Museum of Australia Experience***

The National Museum of Australia is housed in a modern, angular, multi-coloured building that seems to reflect the youth and vibrancy of the country. Visitors enter a somewhat cavernous space with white walls and ceiling planes set at different pitches. The area encloses the reception services, a gift shop

and cafeteria. Individuals and groups move through the space with heightened expectancy. The atmosphere is welcoming and friendly.

Leaving the foyer, the visitor makes their way into the first of the open-plan exhibition areas. A collection of strange and disparate exhibits immediately vie for one's interest and examination. Titled *Tangled Destinies*, the displays seek to capture Australians ever-evolving relationship with the land, its flora and fauna. The topic is extensive, and so is the exhibition. Objects range from beaches to bush fires, time capsules to Tasmanian Tigers - some that are familiar but many that are curious, almost fanciful. Determining a thematic story proves allusive. How does one connect what looks like a giant wombat (Diprotodon) with taxidermically preserved platypuses and the now-extinct Thylacine. Until one begins to realise that the diversity is the point - a narrative of Australia's wonderfully unique fauna starts to emerge.

If quality is on show, so too is quantity. By way of LED lights on a large wall map the relentless march of non-native (feral) species including rabbits, cane toads, prickly pear, European carp and water buffalo was dramatically evidenced. More so than text, the display puts the problem clearly and worryingly into perspective. One cannot help a feeling of responsibility and guilt for the untrammelled damage caused to what was once an environment in sustainable equilibrium.

While feral animals appear troublesome to European Australians, so too does the ever-present danger of bush fires. The *Firetracks* exhibition forces one to imagine the terrible emotional trauma that is the bush fire. Confronted with sights and sounds of fire and heat so often witnessed in television footage one is easily enticed inside a replica shelter. Cocooned inside, one listens to the recordings of people actually living through the horror - an unsettling experience!

After completing a computer simulation of urbanization in 2030, one moves from *Tangled Destinies* into the *Eternity Gallery*. Here the walls are covered by photos of fifty larger-than-life faces of famous and everyday Australians grouped into ten themes: joy, hope, passion, mystery, thrill, loneliness, fear,

devotion, separation and chance. The audio explanation of how these individuals dealt with war, discrimination, personal tragedy and isolation somehow seems redundant. The looks etched on their faces tell their stories in a way that is almost visceral in its emotionality. Feelings of compassion, sympathy, respect, fascination and amusement make for a turbulent melange.

Leaving the Eternity Gallery one is lead back downstairs and into *Horizons: The Peopling of Australia from 1788*, an exhibition using various themes to recount stories of relocation and immigration that form the social fabric of Australia. *Keeping Guard* displays personal journals, photographs, videos and immigration records to depict the immigration policies of previous governments. The unfairness of the dictation test where prospective immigrants were tested in neither English nor their own language immediately induces feelings of anger and embarrassment. *Prison without Walls* tells the more widely acknowledged but no less impersonal stories of Australia's colonial society and the significant role that convicts played in creating a new country. Personal accounts and artefacts as well as paintings and videos help forge humanity from history.

*Nation: Symbols of Australia* uses six different displays to create a richer tapestry of Australian culture including *Australian English*, *Feeding the Nation*, *Spirit of the Digger*, *Suburbia*, *Symbols of Australia* and *Sport*. Interactive touch screens are fun and popular.

In Australian English the country's unique slang and colloquial language is amusing and often confusing, even to those born to it. The feeling that Australia has its own wonderfully particular identity is reinforced in *Feeding the Nation* which takes a culinary journey through the national diet from Aboriginal 'bush tucker' to the birth of the ubiquitous Vegemite (the national spread).

*Spirit of the Digger* explores the origins and heritage of the popularly-recognised ANZAC Day. Photographs effectively display a visual timeline from First World War troops landing at Gallipoli to scenes of more contemporary battles, helping Australians remember their soldiers with pride.

*Suburbia* sheds light on the 'great Australian dream' of owning a home from the 1920s to the 1960s. With a sense of fun and nostalgia, the exhibits are as



eclectic and idiosyncratic as the Hills Hoist clothes-line, the Victa lawnmower and the 1950's caravan. For some younger visitors many of the items are amusingly unfamiliar while for others they are often reminders of carefree years now past.

Symbols of Australia further reinforces feelings of uniqueness and national pride through the pictured icons of the kangaroo, the wattle plant, the Sydney Harbour Bridge, the boomerang and even the once omnipresent Holden car.

Finally, Sport touches on this national obsession through the artefacts of its various codes - football, cricket, cycling, horse racing, netball, tennis and surfing, they are all here, encouraging emotion and identification. As is Australia's well-remembered hosting of the 2000 Olympic Games with its biographies of much-loved sporting legends. The popular exhibition encourages examination of items that have an especially personal connection.

Exiting the final display brings one back into the central reception area and its welcoming souvenir shop and cafeteria.

### ***Textural Analysis: Themes***

The textual analysis was undertaken following the development of the textual description noted above. In this stage of the study the data was approached anew, providing a different way of 'seeing' the data, a fresh perspective that enabled it to be examined phenomenologically from 'within' the experience.

As in the first stage, the second stage of the Main Study collectively reduced the data from both museums to develop a unified set of emerging themes that provided such new 'way of seeing' the experience. However, in this stage the phenomenological approach involved a different form of enquiry that was perceived to offer a deeper, more sensitive interpretation of the learning experience.

More particularly it involved probing participant language to determine what was meant as well as an interplay between text and context to better understand suggested meaning. This on-going dialectic resulted in data that

appeared 'richer' than that which emerged from the previous two phases of the research.

The phenomenological approach also resulted in themes that reflected an elevated degree of abstraction than those developed previously. This was achieved by differentiating themes considered more holistic from categories that were more particular. As such it could be said that the categories cumulatively describe and interpret the themes. They also represent a move from a coarser level of analysis to one deemed finer, in keeping with the need to better understand the nature of the lived experience.

To realise this result the transcripts of the second stage return interviews were subjected to a three stage process of analysis (Hennink, Hutter & Bailey 2011) in order to arrive at the 'textures of experience' commented upon by Creswell (1998, p.150).

While the first reading was primarily designed to identify the more explicit issues that were clearly evident in the data and were able to provide a 'first cut' in the thematic analysis, the second reading was more analytical in nature. This was designed to uncover more implicit issues that had not been immediately evident in the first reading in order to capture the subtle meanings in language, particularly the context in which they were expressed.

The third reading involved an analysis at a higher level of abstraction, leading to a more ontological understanding grounded in the data (Husserl 1913/1982). It also culminated in a drawing together of the experiences in both museums in order to arrive at a consolidated view of the themes operating throughout the data. This allowed for the retrieval of segments of text capable of describing each theme. Moreover it facilitated continuing reciprocity between theme and context such that the themes properly described the meanings inherent in the contexts and all contexts were adequately subsumed by the themes.

It should be noted that the themes comprise both positive and negative aspects. For example, the theme of *Identity* can equally incorporate its inverse being a rejection of identity, *Attraction* can be negated by a sense of revulsion, *Imagination* can be represented by an inability to imagine, *Concrete Reality* can

be negated by a sense of fakery, and *Understanding* diminished by the inability to comprehend. Such negative reactions may, or equally may not, lead to a subsequent adoption of *Avoidance* or *Disengagement*. As a case in point, the following is an example of negative attraction that still retained engagement:

*Over here, Mussolini and Hitler. That's the most evil photo. And just knowing, you know, it was just these two men who did so much. It was a feeling of disgust. Absolutely. (AWM,9,RT,262-264)*

As expected, positive and negative aspects of themes usually appear separately from each other, with a positive aspect typically associated with positive emotions and a negative aspect with negative emotions. However, in certain cases, both positive and negative aspects appear simultaneously together with their equally opposing emotions, as demonstrated by this continuation of the quotation above:

*I know about Hitler. That's (disgust) pretty much all I get, but also awe. A different awe to, you know, looking at the graves of the soldiers. But this one man who influenced so many people and did so much really interests me highly. It's the whole power thing. Yeah. (AWM,9,RT,264-267)*

The themes and categories identified in the second stage are outlined in Table 8-1.

Table 8-1 AWM and NMA Main Study Second Stage Themes and Categories

THEME	CATEGORY
Connection	Recognition
	Visualization
	Knowingness
	Attraction
Recollection	Personal
	Others
Reality	Concrete
	Representational

THEME	CATEGORY
Abstraction	Understanding
	Theorizing
	Philosophizing
Rejection	Avoidance
	Interference
	Disengagement
Impression	Emotions
	Feelingness

### ***Connection***

In this second stage the theme of connection captured ideas within themes of the first stage that suggested a relatedness between individual and exhibit. In this sense it echoes Heidegger's concept of *Being* as it relates to both *Dasein* and the ready-to-hand exhibit and can be described by way of the following categories:

### ***Recognition***

In broad terms this category encompasses elements of shared identity. Colloquially it might be encapsulated by the terms 'I'm like them/they're like me' or 'they're part of me/I'm part of them' or 'I share (a characteristic) with them/they share it with me' and thereby represent an affinity between participant and exhibit.

Through a determination of the meaning behind the words used the category appeared in two variants that indicated a difference from the themes established in stage one. One was an appreciation of those attributes shared between the visitor and individuals portrayed in an exhibit. In such cases the participant believes themselves to have certain characteristics which, when exhibited by such others, induces a feeling of pride. Such qualities might be national, cultural, tribal, religious or any other trait which the visitor considers

appropriate, to which certain qualities are assigned, and within which they place themselves:

*I didn't realise, and I don't think anyone else realised, how important it was to our psyche. To choose our opening ceremonies in the Olympics was a defining point in Australian culture. I have heard a lot of people say that. This is what makes you feel to be Australian. It was things that everyone relates to. It was on an international level. The whole world got to finally see what we were, and it was encapsulated. I just loved it. It was a great performance. A celebration of being an Aussie. (NMA,P,RT,154-160)*

The second variant, subtly different from pride, was that of respect which in this stage of the research is incorporated into the category of identification. This was done in order to acknowledge not only its associations with admiration and deference but more so the assumption (albeit implicit) of shared qualities which the experiencing of respect appeared to entail. While the quality in question might well be understood as being valued by both participant and the exhibited individual (as with pride), the behaviour that is displayed in this variant is that of the other individual alone:

*Once again, it's respect. They were all allied forces. The underdogs. And even though they'd all failed in Gallipoli and it was hopeless, no objectives were complete, just the fact that they got through it, I think, was, yeah, respect. Admiration. But not sadness. Even though the numbers of people who died. That does not invoke sadness for me. It's more respect. (AWM,9,RT,138-142)*

Respect was also evident in peace-time achievements where it emerged with respect to a common interest in sailing:

*The one that did draw me in was Jessie Martin's story about sailing round the world solo. He was the youngest person to circumnavigate the world by himself, which is kind of why I could relate to it. I watched the video. I could kind of relate to that. It must have been quite a challenging experience being alone and on a boat in the middle of the ocean for nine months. I think by myself for nine months would have been quite unbearable. I thought it's quite an achievement. (NMA,10,RT,126-135)*

In summary, this category speaks not to the nature of identity itself but rather the relationship between the self of the participant as s/he perceives themselves and the admirable qualities which they interpret as being inherent in an exhibit.

### *Visualization*

In the second stage the category of visualization involved not only a description of the experience:

*Having the feeling inside a fire shelter and hearing the story at the same time, you can kind of relate to that fear the way she's telling the story. You can just like think this would have been the last resort coming in here. And it would have been very, very frightening. (AWM,10,RT,296-206)*

but the meaning behind the description:

*The fact that they would have had a lot of people in this very small space and it would have been very, very hot and very, very frightening. This is a lot more engaging. Kind of brought you in having the experience of the image. Rather than my own response, it's kind of creating the feeling that the people would have had. (AWM,10,RT,207-216)*

In this stage of the research a greater attempt was made to understand the meanings behind what participants were thinking:

*Whenever I think of the war situation I think of it like adrenalin. Not a rush, but a surge. Your survival instincts kick in. Every man for himself kind of thing. As much as these men are working together and they have an objective, I believe that their ultimate goal is to stay alive. If they have to take another man's life by any means then they will do so. Because they know they're in a kill or be killed situation. (AWM,8,RT,161-165)*

and feeling:

*When we went into the Kokoda Trail section I felt very eerie and chilled. I think it's the way they've made it quite claustrophobic and with all the netting and stuff. I can imagine walking through the jungle and not knowing if you're being watched, not knowing if you're going the right way, not knowing anything. And there's someone out there to get you. You're in this foreign place and jungles are pretty scary with all the things trying to eat you, like little insects and stuff. I think that was probably the scariest part of the whole section for me. (AWM,S,RT,133-138)*

It appears from the excerpts above that a range of emotional responses were associated with the engagement of the visualization process such that without them the phenomenon as experienced would not have occurred. Specific to this category is also the feeling state of *empathy*. While in the first stage this quality was noted as a theme in its own right, in the second stage it was acknowledged as a state elicited through the process of visualization (versus

sympathy which is discussed below). As such, empathy appeared to result from not just a realization of another's feelings but from a deeper level of understanding of what the subject(s) of an exhibit was experiencing. The resultant immersion into their circumstances appears to create a cognitive and emotional 'bridge' into their experience such that the participant, to a greater or lesser extent, sees the exhibit through the prism of such shared perceptions:

*Reading through the description in front of that (exhibit) and the Australian survivors huddled up in their bunker. How they actually survived despite all the odds. Then you feel how much of a terrible situation it must have been. If you're wounded, the sergeant being hit and you've still got a job to do. You're wounded and you're still out there doing it. (AWM,12,RT,65-70)*

In other words, empathy in this setting seems to involve, to some degree, the visitor perceiving the concrete item(s) or situation of an exhibit and from that perception visualizing a situation populated by individuals with whom they feel connected by virtue of a conscious and deep level of understanding of the imagined situation. The outcome appears to be a degree of understanding and emotional response which can even involve an extrapolation of imagined events beyond what was specifically portrayed in the exhibit:

*You've got the man over there sitting on the steps. You know how muddy, how absolutely a mess it was. I mean, they're dealing with everything. Dealing with leeches, trench foot, broken legs, injuries, the Japanese shooting at them, the whole lot. And then you can look at the outline of the terrain and you can see that it's horrendous. I think I, even at my most fit and healthy state, would struggle to do an eighth of this with all the equipment in the world, without having to carry your best mate who's lost half his leg while being shot at. (AWM,8,RT,297-303)*

As a result of its ability to induce the very personal 'virtual world' of the individual as well as the feeling state of empathy and its often attendant emotions (such as joy, sadness, fear and anger which themselves are usually associated with high levels of arousal), visualization appears to be an important category of the theme of connection.

### *Knowingness*

As distinct from visualization where the individual undergoes something of a projection of themselves into another situation and thereby empathetically shares the experience with another (namely those portrayed in the exhibits), the category of knowingness as it appears in this stage of the research represents what might be considered a continuing 'separateness' of the individual from the exhibit. As such, it represents the assimilation of new information that involves a recognition of, but not an adoption of, the position of others.

In many cases the new information is associated with what might be termed a 'feeling state' that induces the experiencing of a particular emotion. In the following example the participant, upon becoming aware of the death of a young soldier, entered the feeling state of sympathy and experienced the emotion of sadness:

*I definitely stopped here. This is amazing. This kid was only fourteen. And out of disease, yeah, died of typhoid fever. He wasn't even shot. And was being evacuated and had heart failure. It was just the fact that he was fourteen. Sad. Very, very sad. A kid. An innocent kid. (AWM,9,RT,132-135)*

In the following case the new information related to a perceived injustice resulted in a feeling state of compassion with an apparent associated emotion of anger:

*It's something I hadn't known about before, the fact that people were quarantined when they arrived...the manacles that they used to restrain people, from stopping people escaping the quarantine and making sure they conformed to it...in a sense kind of connects you to it somehow...There's probably a sense of injustice in the situation because...how much would the people who arrive in Australia have known that they were going to be subject to a quarantine as soon as they arrived. (NMA,10,RT,70-85)*

In summary, with respect to the major theme of connection between individual and exhibit, knowingness appears more grounded in cognitive processes associated with the receipt of new information rather than the seemingly fanciful processes of visualization. As such, it could be seen to be devoid of the



strength that Heidegger's phenomenology might suggest emerges when the Dasein, at least for a time, assumes the being of others by way of visualization.

### *Attraction*

This category emerged from the adoption of the phenomenological approach that provided the opportunity to incorporate positive participant reactions not sufficiently well addressed in the earlier first stage themes. As such, attraction appears to involve a type of relatedness between visitor and exhibit in a less complex way than in the categories of recognition, visualization and knowingness. In several cases attraction emerged from something that was considered humorous:

*This particular picture I found quite funny considering that they're in Egypt with the Great Pyramids behind them. Funny actually because you've got the pyramids of Giza and they have a kangaroo in the foreground. (AWM,8,RT,19-20)*

or an aesthetic appreciation:

*I was amazed really that such apparent detail could be created out of such primitive bits and pieces. I guess I felt an appreciation for the effort that that would have had to have gone into this, into making it. But also the kind of abstract thought, the bigger picture. (NMA,2,RT,3-6)*

or existing interests:

*And again, the red coat. I just love fabric. It's true. I won't lie to you. All the workmanship that's gone into it. That is incredible. And the tailoring. These buttons would have been damned hard work to do too. (NMA,6,RT,354-358)*

or just an appealing story:

*I liked this. The little story about the bloke from Saigon. I guess they were boat people. That was interesting. Got attracted by that. (NMA,6,RT,84-85)*

In summary, the relationship between individual and exhibit in this category appears to be one bounded more by an emotional connectivity based on different forms of personal appreciation rather than the other more cognitive based categories that constitute the remainder of the theme.

### **Recollection**

The data suggests that recollection takes the forms of personal reminiscence and reminiscence of others. In both forms the memories appear to be essentially private, emerging only upon demand. As noted in chapter three, the process of remembering involves the retrieval of past memories, interpretation of current information and experience, and the laying down of re-formed memories. In that sense recollection can be viewed as highly personal and might be said to personalise the exhibit:

*I really like this. This is a small paint box. It's a very old one. It's very, very nice. I've always wanted something like this and my mum painted a lot when I was younger. We talked about (respondent G)'s grandma who also paints a lot. And it reminded him of his grandma too. We had a little sharing of experience there. (NMA,14,RT,23-29)*

Recollection also appears to facilitate an integration with the self. That is, it appears that the various attributes of the exhibit are determined, analysed and prioritised for potential assimilation (to a greater or lesser extent) into the individual's personal construct:

*I think this is great. The whole thing representing cubby houses. Kind of really hit home. Nostalgic. Because I had a cubby house. Always used to build them myself. So I thought that was a really interesting way of representing Australian identity, through childhood identity. (NMA,G,RT,50-52)*

As noted in chapter four, information and attendant emotions are remembered together such that the latter influences recall of the former. In this regard, memories were empirically noted to provide an important frame of reference by which participants interpret their experience:

*The paper cranes I found moving because in Hiroshima in 2003 on the anniversary of the bombing I was in Hiroshima. I went to a building which was originally a bank which was supposedly three levels. Three levels had been actually blown out of it. There were over three million paper cranes on display made by school children. (AWM,L,RT,112-116)*

Finally, because recollection is to a large extent elective it appears to provide the individual with some degree of self-determination not only what memories are associated with what exhibits but also how such exhibits are interpreted. In

the following case, the participant chooses to interpret a POW exhibit by way of the recalled stories of a grandparent with what appears to be attendant emotions of pride and affection:

*My grandfather was in a POW camp. Supposedly where 'The Great Escape' was. He donated his boards to a tunnel. They used the strings from the Red Cross to tie the wooden planks from under the bed. It became like a lattice. My grandfather was shot down in Europe. (AWM,L,RT,100-103)*

Importantly, both personal experiences and the experiences of others are not recollected 'reality' but rather current perceptions of past perceptions of experienced phenomena. That is, they are neither exact representations of experienced phenomena when first laid down, nor are they unaltered configurations of those laid down perceptions at the time of recall. Rather, they are perceptions on top of perceptions and as such are not only subject to modification, distortion and erasure, in part by virtue of the emotionality presiding at the time of laying down the original memories, but also due to subsequent imaginings, attitudinal biases, phobias, personality traits, knowledge, experiences, injury and illness, beliefs and social customs. Nevertheless, recollection was empirically evidenced in the second stage to be both significant in terms of the making of meaning by participants and influential in terms of the phenomenological nature of the experience.

### **Reality**

In the second stage the theme of reality was seen to consist of two categories, concrete and representational, which describe the experience of the phenomenon.

#### **Concrete**

This category is described by way of all the physical aspects of the museum experienced by the visitor, both hard (buildings, exhibition galleries, labels, interactive devices, retail outlets) and soft (ticket sellers, guides, docents and other visitors). All of these represent elemental forms that together constitute the concrete reality of the experience.

In the case of the NMA the unusual design of the building had an immediate impact on several participants:

*I started talking when we entered this place about architecture and how I loved this building for its flat panels, straight lines, angles, large windows. (NMA,4,RT,4-5)*

Generally, however, concrete reality was reserved for the exhibits themselves:

*Yes, the dress...I look at this and I see this was once owned by a person and I get a sense of history and nostalgia looking at this kind of thing because I'm like, someone belonged in that. Someone was in that. By looking at this kind of thing I go, that was a real person and there's a real story to this....I want to kind of touch it. (NMA,6,RT,103-132)*

This form of reality is seen to be sufficiently fundamental that in some cases it facilitates the emergence of other categories such as empathy:

*As I went around, I really loved seeing the letters and the handwriting. That resonates quite strongly with me...when it's actually first hand accounts of how those people are feeling and what they're going through, it kind of puts me in their position so I feel that stuff that's coming through with the letters. (NMA,9,RT,51-56)*

and understanding:

*Just being able to see it (the diorama of the Gallipoli invasion) graphically like that. It's so different. You can read and read and read and read and you can have your own mental picture. But when you can actually see it like that it just makes it again more real. (AWM,9,RT,87-91)*

The importance of concrete reality was also noted where the implicit obligation on the museum to exhibit 'real' artefacts was compromised:

*We looked at the dinosaur. It's impressive but at the same time, because it's fake, there is something about it that's kind of not really that interesting. I feel disconnected from it because it's not an actual artefact. It's just a re-creation. I can't empathise with the creature and how it lives because it's not actually real. (NMA,G,RT,29-32)*

### *Representational*

As distinct from physical objects, the experience of reality in this context is achieved through more indirect means. In some cases the symbolic nature of an exhibit provides its representational qualities:

*We stopped at the Nazi symbol and were surprised how scared it made us feel. Because once again it's a symbol that we've just been brought up with as a history symbol. (AWM,S,RT,123-125)*

The representational nature of an exhibit arguably always has the potential for subjective interpretations different from those that the museum designers may have intended. In the following case it is interesting to note the change in terminology used from 'destruction' to 'sense of destruction'. While the former represents the factual phenomenon, the latter seems to suggest the experiencing of the phenomenon; an interpretation gained through the prism of the participant's own perception:

*One of these dioramas you're looking at people who have been killed. There are soldiers lying in the mud, twisted. There's lots of destruction. But the thing which really gives me the sense of destruction is the fact that there's a tree and it's lopped off and there's no branches on it. I associate the destruction that they're imparting here solely with the tree and not with the people dying. And I think that's because I probably sense the natural world as being so much more innocent and that this destruction was the result of humans and so we deserve everything that we get in that sense. But a tree who had no part in it is destroyed. Really, in part, it says something; that loss and that stupidity of wars. (AWM,13,RT,145-154)*

While reality has the potential for continued engagement through individual interpretation, the following example demonstrates an apparent lessening of the experience due to the loss of representational reality:

*Artists were actually commissioned to paint scenes. People were sent over there to paint war. I guess if you send somebody over to paint something you're instantly putting a filter on the perspective you get. This (label) was saying that he went home to London and he got them all to pose for this shot. Everything looks far more downtrodden in the actual photos. (AWM,D,RT,38-47)*

As suggested in chapter one, reality can be seen as a necessary and defining characteristic of museums. Indeed, the visitor experience appears to be enhanced by the knowledge that the exhibit is genuine, a realization capable of eliciting both interest and engagement. However, devalued by fakery or unrepresentative portrayals, the result appears to be a loss of engagement with attendant emotions of frustration and annoyance.

## **Abstraction**

In the second stage it was clear that there had to be a distinction between the theme which had its roots in the reality of the exhibit and conceptual thinking which takes its substance from the process of thinking about the object and its context. To this end the theme of abstraction was addressed by way of three categories, understanding, theorizing and philosophizing.

### *Understanding*

In broad terms, this category represents the experiencing of informational search, processing and assimilation in an attempt to draw conclusions. In many cases information search is indicated by the asking of questions, both general:

*It was quite shocking that someone was that young. I had quite a few mixed thoughts about it I guess. One thought was why someone so young would want to go to war and why people want to go to war? Is it to defend their country? Is it to do something different? Is it for the pay? Or is it something completely different? Then the other side is how can we let people that young go to war? (AWM, 12, RT, 134-138)*

and more specific:

*We looked at this (aboriginal dot painting) and wondered how they got to the point where they thought, rather than painting the whole thing we'll just get a stick, dip it in some paint and do lots of dots. How did that come about and how did that style develop? Just happened over time? Someone picked up a stick and it developed from that? It's intriguing. (NMA, 14, RT, 163-167)*

Generally the processing of new information occurred without dispute:

*See how Darwin was attacked. That was really interesting because I wasn't really aware of what happened. I knew Darwin was bombed a few times but I didn't realise there were so many bombers bombing, even down to Port Hedland. How there were reconnaissance missions across south-east of Australia. So it was very interesting. (AWM, 16, RT, 177-181)*

In some cases, however, processing involved a degree of incredulity as new data conflicted with existing misconceptions:

*I always sort of knew that we landed too far north (on the Gallipoli beach) compared to where we were supposed to go. But really, how on earth were we meant to take this sort of ground? Was just amazing and I'm surprised that any man really was willing to go into battle to do it. I can just see how*

*from these positions it would have been so easy to defend and just how desperate the situation there would have been for any attacking soldier coming from the beach. (AWM,8,RT,31-36)*

Generally assimilation of new information appeared to reinforce existing attitudes, values and beliefs. However, such was not necessarily so as in those cases where understanding emerged from a complete change in pre-existing attitudes:

*It's a position of high honour to take the enemy's life for a Samurai. That's the way (beheading with sword) they would take their enemy's life. So in a way I suppose I no longer see it as wrong. I do see it as wrong, but I don't see it as disgusting and inhumane. Just see it as slightly ignorant. But then that's part of the culture at the time. (AWM,8,RT,361-364)*

In summary, the experience of understanding might be said to involve a degree of dissatisfaction with the ability of current knowledge to deal with the arrival of new information and the subsequent processing and assimilation of such new information.

### *Theorizing*

As distinct from understanding which necessitates intellectual questioning, the experience of theorizing involves arriving at an opinion as to how things are. In part the process appeared to be one of conjecturing:

*I look at it and I think that's a situation which you have no control over. It really is up to fate as to what's going to happen. One of these men at the top here could be shot down any second and one of these men here who has already been shot may very well go home and recover and have children and grandchildren and all that sort of thing. (AWM,8,RT,86-91)*

Alternatively it involved a consideration of the 'everyman':

*I particularly found the helmets surprising because they are so simple in design. Nearly all of them has a ginormous gaping bullet hole. It makes you think, that's one shot. That's one man. It's so simple. And you think no matter how fit and healthy, how strong or fast you are it would make no difference on the battlefield. Those machine guns are pouring out. I think it really almost puts every man on an even playing field. You could just as easily be shot as the man next to you. It's just down to luck I suppose. (AWM,8,RT,107-112)*

or the notion of inhumanity:

*I think that (exhibit) really puts into perspective how the war did rob humanity. It's one thing to engage in war and to defend your country and that sort of thing. But to unnecessarily, once that person is of no further threat to you, take their life I think is just a horrible, horrible thing. Here is the dropping of the atomic bombs and you see Japanese civilians with horrific burns and blisters and radiation poisoning and that sort of thing. (AWM,8,RT,377-382)*

In other cases theorizing resulted in assuming a position contrary to the information being presented:

*I think it was about this time we said, 'I wonder what war was really like? If it was actually like this?' I started doubting whether it looked like that. This is just an artist's perception of it, I guess. A lot of photos seem to look like it but we're only getting black and white photos back then. So I wonder, because it just all seems so sombre. (AWM,16,RT,116-120)*

or achieving an empathetic realization of the thoughts, feelings and beliefs of others:

*The cross stood out to me...I think it puts across the religious motif that comes with war. And how people in war feel that they have got nothing to hold on to. All their friends are dying so they start praying again, and maybe for absolution. I feel that when people really start to become depressed they turn to religion as something to save them. (AWM,16,RT,73-81)*

In summary, the category of theorizing, with its ability to influence personal attitudes, appeared to be particularly powerful in both the experiencing of the phenomenon and its ability to modify those elements which in part can be viewed as constituting the self.

### *Philosophizing*

As against the information gathering of understanding and theorizing with its necessary interpretations and conclusions, philosophizing involves considering the human condition without the certainty of specific outcomes. For one participant the issue was the relative worth of a single life:

*The assassination of the Crown Prince of Hungary which triggered the war. An assassination is not the coolest thing in the universe. But the fact that it sparked off this whole war. This long battle. It's kind of, I don't know, the life of one person. Is it worth the lives of how many more tens of thousands of people? (AWM,9,RT,3-7)*



For another, the issue was somewhat more prosaic:

*I started thinking, well, am I for or against conscription? I posed that question to Ritchie as well and came to the conclusion myself, 'is there a difference in conscripting for home defences as opposed to conscription for coast defence?' It mentions here, there were two referendums to conscription which were both narrowly defeated. What sort of environment would have been today if there was compulsory conscription? Yeah, some confusing thoughts. (AWM,12,RT,79-84)*

In many cases the process of philosophizing involved a participant attempting to resolve two mutually-exclusive positions:

*Why were we actually doing the Second World War? Talks about the Germans not stopping and us going in there to defend Poland or whatever. But were we going in there as humanitarians, as a lot of the wars are under the name of these days, or were we going in there for our own interests to stop Germany taking more land and eventually taking us? 'Cause there's always a lot of different reasons given to us and I guess this made me think of it again and sort of saying, well, were we being selfish or were we being non-selfish in terms of making sacrifices to help others? And the confusion revolves around that. (AWM,12,RT,144-154)*

In summary, the experience of philosophizing involved questioning the unanswerable. None of the issues above occasioned the need for a final determination and yet their very posing appeared important to the individual concerned.

### **Rejection**

Although arguably more a behavioural characteristic than a theme of meaning, the lack of engagement must be considered as part of the overall experience and as such a participative descriptor for the phenomenon. In that sense a disturbance in the interrelationship between individual and object can be seen to speak to the underlying nature of the experience. It is suggested that the theme can be described by three categories, each representing an increased degree of loosening of the visitor/exhibit interaction.

### **Avoidance**

With respect to this category it is suggested that the participant consciously eschews any contact with the exhibit. While the reasons for this are potentially numerous, the oft-cited causes were a lack of personal relevance, a repetition

of known information, a lack of interest, or some element of the exhibit which is considered unappealing:

*It's here (WW1 Gallery) where I first saw the paintings. Had a look around the paintings around me and realised that I didn't get anything from them to be perfectly honest. (AWM,9,RT, 27-28)*

*I think that the Nazi sign has been so used in the media and I've seen it so many times it doesn't really have much of an impact on me now. (AWM,16,RT,190-191)*

*This part of the museum I find quite boring. 'Cause it's just artefacts and it's trying to make it interesting but it doesn't really. (NMA,10,RT,21-22)*

*I didn't even stop at that. I'm not even sure what it is. It's part of a plane or something. Relics of a massacre. That offended me...As soon as I saw that I just didn't read it. (AWM,9,RT,300-302)*

In summary, avoidance appeared to be the most strident of all the categories of this theme as it worked against any form of engagement and hence any degree of learning.

### *Interference*

While avoidance represents the non-commencement of the visitor/exhibit interaction, interference refers to its disturbance. That is, there has been some influence on the relationship such that its positive progression is, to a greater or lesser extent, interrupted.

In some cases such obstruction resulted from matters extraneous to the actual exhibit:

*The noise...it's a bit overwhelming. (ANM,2,RT,97-101)*

Generally, however, interference emerged as a result of the exhibition as in the case of the museum failing to adequately present a balanced message:

*I thought, hang on, women were in the munitions factories and there's nothing here about that. I can appreciate that you can't fit everything in and I guess the ultimate sacrifice was definitely the soldiers but still, there are many sides to a story. (AWM,9,RT, 341-343)*

### *Disengagement*

With respect to this category engagement is seen to have commenced but has broken down during the course of its occurrence. In general this appeared to result from a disaffection with the exhibit, a lack of comprehension, or scepticism concerning the veracity of the message:

*These are the faces and the numbers of 1,787 Australian Prisoners of War who died in the death march. I couldn't actually stay in here for very long because I found it quite upsetting because I was worried that I'd come across a face that I thought I'd either recognised or looked a little bit too much like someone I might know. (AWM,8,RT,370-373)*

*I just walked in this area and the emotional words (on the ANM wall) are post-modern. But is that in itself meant to provoke an emotional response? I wonder what they're trying to achieve and if you are missing what they are trying to achieve. (ANM,3,RT,3-5)*

*The 1960's and 1970's peace marches and women's liberation. I thought this was incredibly boring, with t-shirts and some buttons and a photograph of peace. It was such a vibrant period and to represent it like that is not good enough. (ANM,3,RT,36-39)*

*The statements 'The pain that the war caused is incalculable. Unimaginable evil.' The word 'unimaginable', with the photo of the many people dead, was really not that unimaginable I don't think. Especially in today's world...To qualify with something like 'unimaginable' I think is just taking it a bit too far, especially when it is imaginable. It was just a bit disappointing. (AWM,16,RT,266-270)*

In summary, the category of disengagement is important as it represents experienced dissatisfaction leading to a loss of a pre-existing connection between visitor and exhibit. In a sense it is a process of learning and non-learning. Learning takes the form of a realisation by the individual that the topic holds no interest, an attitude that is available for future reference. Non-learning involves a disjunction in the on-going process of learning thereby preventing any further extraction of meaning from the experience.

### ***Impression***

Denzin (1984) posits that the phenomenological structure of emotional experience has two elements namely a 'core' of emotion that is readily appreciated by way of everyday language (for example, anger, joy) and

'encircling spheres' of feelings, thoughts, memories and emotions. As noted in chapter six, such structure is considered to account for the different layers of emotional consciousness that are experienced as an individual moves through the horizon of such spheres towards its core, and back out from the core through the same horizon. For the sake of convenience the terminology given in this study for these two conditions are *emotion* with respect to the core and *feelingness* with respect to the spheres.

In terms of the other themes previously mentioned, the distinction between these two states is important as it both defines and differentiates the emotions evident in the other thematic categories. In this regard particular mention should be made to the categories of Knowingness and Imagination and their respective references to sympathy and empathy.

Regarding the former, it was noted that participants appear to move through a state of feelingness identified as sympathy towards an emotion that is often, but not invariably, that of sadness:

*The look in the faces. Just sort of somewhat concerned and he just looks like he's had enough by the looks of things. Enough of war. You just feel sympathetic. It must have been such a long battle so it's bringing out sympathy...It makes you feel very sad. (AWM,16,RT,226-231)*

In this sense sympathy appears as a feeling state that, to a greater or lesser extent, involves the cognitive processes of knowingness. But according to Denzin (1984) it can also be seen as a collective of other attendant thoughts and feelings through which the individual must move to arrive at the core emotion of sadness. Such thoughts might well represent personal memories of similar past experiences with their attendant emotions or imaginative emotional displacement as evident in Stanislavski's (1936) concept of emotional memory previously discussed.

Similarly, the feeling state of *empathy* appears to involve to a certain extent the rather sophisticated cognitive processes of imagination plus, once again, other attendant elements of feelingness which encircle an emotional core, as in the following case where the core might best be described as 'awe':

*I don't usually get emotional but I could feel there was something inside going, 'wow this is pretty intense'. So like, just the numbers keep getting me. So many people, and how many people would have died? And if you just imagine a massive field of however many people out there died at Gallipoli. (AWM,16,RT,124-128)*

Another example was evidenced with the feelingness of injustice and the core emotion of sadness:

*There was a picture. A woman looking at her dead child. She sat there, crying. And the other people walking by and didn't even react, like nothing happened. I think it is dreadfully sad. Such a waste to happen to a child who didn't do anything to deserve this. A real feeling of injustice. Meaningless faces and faceless names. (AWM,7,RT,54-59)*

It should be noted that while there is a necessary relationship between the state of feelingness and the emotional core, the identity of each need not remain the same. In other words, the above-mentioned example of injustice could have equally resulted in the emotion of anger. Which emotion is evidenced during the phenomenon would appear to be at the interpretative election of the individual experiencing the feeling state.

As to the identification of the feelingness, reference might be made to Gunther (2004, p.44) who stated:

*(T)he knowledge we have of our emotional life is partially based on the knowledge of our feelings. By introspecting on what we feel, we learn to recognise what emotional attitude we're experiencing.*

Whilst this might well be so, the identification of what was being felt as some participants underwent the experience was found to be particularly problematic:

*Came in here, It felt very, I don't know. I was in here by myself for a bit and that was really, I don't know, the darkness and the noises and seeing images. Slow motion images. It had Japanese names and victories and it was a little...it filled you with a bit of, not really fear, but just a little bit of, I don't know what to call it. I can't figure out what it's called. It's just very...when you come into a dark room and you can't see anything. You've got a bad feeling. (AWM,16,RT,163-170)*

In accordance with the phenomenological method it was found necessary, on occasion, to clarify what was meant by the emotional descriptors used by some participants, in the following case with respect to the bombing of Hiroshima:

*I'm looking at these pictures here and there's just nothing there. It just highlights how they put no value on human life. I find it very upsetting. It highlights the shortcomings of humanity. (What do you mean by the word upsetting?) Depressive, definitely depressive. I don't view it as the Japanese. I view it as people and I just find that terribly, terribly upsetting. (AWM,8,RT,391-396) (Researcher in parenthesis)*

In another example 'upsetting' was associated with feelings of repulsion:

*The thing that struck me initially and really gave me a sense of repulsion is the hands. The way the hands are clenched in that sort of final moment of agony...It's just that body language which is very upsetting. (AWM,13,RT,259-266)*

These examples indicate, to borrow a term from John Dewey (1938/1975), the 'slipperiness' of trying to have research participants name their emotional reactions. On occasion the nature of emotions have to be assumed from bodily states that were being felt whilst undergoing the emotional experience:

*I remember seeing the pictures of Hitler and swastikas and I remember getting chills down my spine. Not saying that Hitler was a great person, but the propaganda suggested that he was the most evil and sadistic man ever. And just seeing a picture of him made my skin crawl. I have been told all the things in WW2 with the camps and genocide and all these things. (AWM,7,RT,122-126)*

Interestingly, the participant here appears to be expressing the difficulty of interpreting complex emotions and the meanings that they impart to their intentioned exhibits.

### **Summary**

It can be seen from the above analysis that the identification of themes in this phenomenological phase of the textual analysis was done not through mere descriptions of the experience as in the previous stage but through what van Manen (1990/1997, p.79) refers to as 'a process of insightful invention, discovery or disclosure'. From this approach meaning is prized from the words and/or their context in what the researcher terms a 'free act of "seeing" meaning' whereby the experience can be interpreted and seen to make sense. It is this process that results in phenomenological themes that provide an understanding of the '*structures of meaning...the experiential structures that make up that experience*' (van Manen, 1990/1997, p.79) (italics in text). As

such, it is apparent that the themes that emerge from such a phenomenological interrogation differ markedly from those that were developed in the previous two stages of this study and provide the necessary degree of richness that was sought to fully describe the learning experience.

### **Locating the Phenomena: Exploring Essences**

The study now moves the examination of the experience by way of the thematic analysis toward a discussion of its essential structure, or essences.

As stated by van Manen (1990/1997, p.39):

By essence we do not mean some kind of mysterious entity or discovery, nor some ultimate core or residue of meaning. Rather, the term “essence” may be understood as a linguistic construction, a description of a phenomenon...so that the structure of a lived experience is revealed to us in such a fashion that we are now able to grasp the nature and significance of this experience in a hitherto unseen way...a creative attempt to somehow capture a certain phenomenon of life in a linguistic interpretation that is both holistic and analytical, evocative and precise, unique and universal, powerful and sensitive.

While the themes identified earlier in this chapter provided a means of data reduction by which the experience might be better understood, the essences can be viewed by way of the metaphor of DNA (noted above) which in a sense unifies all the themes. Further, unlike the themes that together provide meaning to the experience but individually are dispensable with respect to its holistic nature, the essences are so cardinal that their removal would completely undermine the phenomenon as the phenomenon. As a consequence they should be conceived as independently constituted but interacting threads that are fundamentally important in their contribution to the experience. By performing imaginative variation (noted above) the researcher imagines the data within the themes in different ways in an attempt to determine what remains invariant. Those ideas that form the invariant structure of the experience are its essences. In this sense they *are* that which is experienced - the answer to the essential *ti estin* (what is it?) question (van Manen 1990/1997, p.33). From an identification of its essential nature, the researcher can, through a process of extrapolation, arrive at a full understanding of the nature of the experience.

To arrive at such essences the Husserlian (1913/1982) approach suggests that the experience needs to be conceptually 're-constructed' in the process of interpretation and hence such essences can be viewed as being outside the experience. Heidegger (1927/1962/1997), on the other hand, contends that consciousness and essences are not something separate from human existence but rather immersed in it. This study arrives at its essences from both conceptual and existential standpoints. More specifically in their identification it seeks to achieve both a heightened degree of abstraction than that defined by the themes at the same time as embedding the essences within the text of the participants. This was done through a combined process of theoretical reference and intuitive examination of participant text.

More particularly, the data was repeatedly examined until a number of possible characteristics emerged that were considered to have the necessary degree of revelation (van Manen 1990/1997, p.33) as well as being structurally fundamental to both the themes as a collective and participant experience. Each of these possibilities was then individually examined within the context of the text to determine whether its removal could be said to fundamentally change the very nature of that experience. It was only after repeatedly performing this process for each of the proposed essences that a final assembly was arrived at.

Emerging from this process, five essences were identified namely *Physicality*, *Engagement*, *Reflection*, *Emotionality* and *Meaningfulness*.

### ***Physicality***

By assigning the principal attribute of museums as 'the acquiring, conserving, researching, communicating and exhibiting of material evidence of people and their environment', the International Council of Museums place the physicality of exhibits in the very epi-centre of the museum's *raison d'être* (Talboys 2005, p.7). In terms of the themes described above, such a position would not be unwarranted. Justifiably, it could be argued that the physicality of exhibits influences all other themes to such a degree that its removal would so fundamentally change the phenomenon that it could no longer be considered to



be a museum experience (being an exhibition contained within a physical rather than an on-line environment).

The point is amplified by Falk and Dierking (1992) who, in their *Interactive Experience Model*, determined the *Physical Context* to be one of three elements that best describe the museum experience. Moreover, Falk (1976) posits that there exists such a strong relationship between physical context, positive feelings and learning that any one can be used as a predictor of the other two. In so saying it should be noted that such context does not relate solely to the museum structure but also its ambience, exhibition spaces, display cases, interactive devices, computer equipment, audio-visual shows, souvenir shop, brochures and maps, restaurants and cafes, smells, sounds, sights and visitor facilities. It can also be said to include its 'soft' resources such as ticket sellers, information providers, retail staff, guides and docents.

In terms of the phenomenology of the experience, physicality also represents the 'object' in Husserl's (1913/1982) concept of intentionality whereby the conscious mind is orientated to the object. Such intentionality relates not to the real object but rather to the phenomenon of the object (the *noema*) as well as the meaning of the object (the *noesis*). In this regard one can consider the comments of participants as particularly apposite:

*There's a plane here. When I saw this I really got a sense of the fragility of life, because looking up at the wings from underneath you can see that it's held together by lots of tiny, tiny screws. And you can see the metal and it's incredibly thin. It's a very fragile thing and it's being suspended on not a great structure in terms of its engineering. And that really resonated through to a feeling of the fragility of life and how easy it is to kill people with something which in itself is so fragile. (AWM,13,RT,346-352)*

When interpreting the phenomenology of physicality within the museum experience it is therefore important to be cognizant of the differentiated form of intentionality that is associated with different kinds of objects. As mentioned in the previous chapter, the intentioning of artefacts is different from that of photographs or of paintings:

*This makes me feel joy because it is the exact puppet which was used to make the prisoners of war, the troops, happy. This man, Thomas, he had a mannikin and it was a comedy act. It was amazing but you can see a photo*

*taken at Cheney (Japanese prisoner of war camp) and this exact doll is here now. It's pretty amazing. (AWM,7,RT,173-177)*

When reflecting upon the nature of physicality it is also necessary to consider the concept of reality. As discussed in the thematic analysis above, reality in the museum context can be perceived as either concrete or representational. While the former refers to that which 'is and of itself', such as an exhibit of a soldier's uniform that can be seen, touched, even smelt, the latter is more representational in that it 'stands in' for another such as the soldiers in a painting of a battle scene. In a phenomenological sense, however, both are of equal 'reality'. Both have their own form of 'intending' and both have their own physicality which can be experienced.

In addition, both can be described according to Sokolowski's (2000) discussion on perception, with its blend of presences and absences, wholeness and parts, identity and totality. In the case of the soldier's uniform, perception can be considered to be that which is seen as a uniform *and* that which is absent, being the soldier whose uniform it was. In the same way, the painting might be viewed as a painting of a scene that is present *and* a battle that is now absent. Moreover, the painting can be considered as a phenomenon of itself (noema) as a painting *as well as* the meaning of itself (noesis) being a past battle that is represented in part but not in whole by the painting. In terms of the visitor experience, such presences and absences can often make the exhibit 'come to life' through the involvement of personal experience and imagination:

*This painting here which is about bringing ammunition up to the front was one of the very few bits of art that sort of got a reaction from me. In particular in one corner down here you see that there's a wheel of a carriage which is being drawn by horses stuck in the mud. And just that image of a wheel being stuck. If you're someone who's ridden bikes, driven cars, and you know that when you're stuck it can be really hard to get something out. That symbol really gave me a feeling of struggle and that things were actually pretty tough and that doing this sort of work was hard. It was demanding. It would have been very tiring. (AWM,13,RT,100-108)*

Wagensberg (2006) classified *the* 'reality of objects' (which he defined as made of matter and occupy space) *and* 'phenomena' (being changes that objects undergo which mainly occupy time) as essential to the nature and public offering of museums, without which they would not be museums. As such, any

other form of associated communication, be it spoken or written word, images, replicas or the like, can be used to help converse with reality, but never to stand in for it. Further, he suggests that there are degrees of reality such that an original and unique object represents itself and as such is 100% real, while a copy is somewhat less so. The point is cogently made with the following comments from a participant regarding the appearance of a replica giant wombat in the NMA:

*Extinct giant marsupial. Well, it's quite large. I like the way they've put the transparent over it so you can get to see their brains and then what an artist thought it looked like. I like the way they've done that. It's quite intriguing how this creature moved about many years ago. I think it's pretty clever that somebody has spent a lot of their time just piecing together the bits of the skeleton. It would take more patience than I would have. (NMA, 14, RT, 55-63)*

From a Heideggerian perspective the distinction between being and Being places physical exhibits as perceived by the visitor not only in the world of existence (being) but also defines them through their unperceived essences (Being). Such essences are constituted by their present, past and future, an important consideration in the museum context where present exhibits often gain their import by virtue of their past existences. Thereby Heidegger would consider the perceived exhibit to display the ontic of physicality as well as the ontological of the unperceived structures of meaning that explain the ontic. More so, the non-human characteristics of exhibits appear to place them solidly within the purview of his definitions of ready-to-hand and present-at-hand (refer previous chapter).

However, it is interesting to note that, in the case of museums, an exhibit has, at the same time, a present (for example, a Roman sword as an exhibit), a past (as a sword which was once used by a Roman soldier) and a future (as a means of exposing the past to future visitors). As such, it still remains ready-to-hand to museum visitors but not in the sense of its original intended use (that is, a weapon for protecting a Roman soldier). In fact, it is only by virtue of its original use that it now has its current one. In other words, the two uses are embedded within one another. While it might be considered ready-to-hand for anyone wanting to break the display case and use it as a weapon, it is more

likely to be viewed as present-at-hand for a 1AD Roman soldier by virtue of the fact that the latter no longer exists. However the sword is also ready-at-hand for visitors simply wishing to learn about its history. This would appear to make it both ready-to-hand *and* present-at-hand simultaneously.

Similarly, Heidegger's (1927/1962/1997) view of *time* might demonstrate such duality. One could consider, for example, the sword exhibit is 'inside' its own time as a weapon for use by a 1AD Roman soldier. However, now being a museum exhibit it could also be viewed as 'outside' its original Roman time and inside current time where it is the object of visitor education. In this sense the exhibit appears to be both inside time and outside time at the same time.

Such considerations are not merely academic. The discussion suggests that far from simplifying the visitor experience, defining its essential nature by way of its physicality is both complex and illuminating. Indeed, it serves to illustrate the phenomenologically defining circumstances of the museum exhibit which provides both challenges and opportunities for designers and theorists while indicating that without such physicality the museum experience as currently understood would not exist.

### ***Engagement***

Engagement within the museum setting is generally freely selected, non-sequential, self-paced, voluntary and often socially constructed as the following example evidences:

*We walked through this area pretty quickly until we got upstairs. It depends on what interests you...We started looking at these ones along here. This stuck. I didn't realise we breed types of marino sheep...This is where I get confused. We actually walked all the way along to the end and looked how we could get back up there and then we had to walk all the way back. On the way saw the gold nugget and thought 'wow'. Imagine finding that. How amazing. And then tried to work out if the chains were for your arms or your feet or both. And we were trying to work out who is this. Maybe this is the Duchess of York or the Queen. Or was it Elizabeth? I think we should be a republic if you can't remember the Queen's name, I said to Katherine. This stuff here, I was frustrated. The 1960's or 1970's peace marchers and women's liberation. I thought it was incredibly boring. It with t-shirts and some buttons and a photograph of peace. It was such a vibrant period and to represent it like that is not good enough...then we walked around there looking for stairs. There was nothing there. (NMA,3,RT,9-47)*

As has been discussed previously in this study, learners self-select *what* they wish to learn based on their prior knowledge, experiences and individual interests. They also decide for themselves *why* they wish to undertake that particular learning based on their own motivations, attitudes and expectations as well as *where* they wish to learn based on the design and presentation of the physical surroundings and the exhibits. They are influenced in *how* they will ultimately learn based on their social situation, culture and background as well as the degree of choice and control that they have within the process of learning. Having decided *with whom* they seek to share the experience, it is the visitor who determines exactly *when* they create their own personal meanings from what they have experienced.

Such are the circumstances that constitute engagement, the second thread that runs through every interaction between the source of 'packaged knowledge' (that is, the exhibit and attendant interpretational material) and receiving individual - a process that speaks to the phenomenon of the object/visitor conversation rather than the exhibit itself.

A process so fundamental to the museum experience that it is inherent in each of the above-mentioned themes of connection, recollection, reality, abstraction and impression and without which there can be no on-going process of attention, interpretation, comprehension and learning.

The writings of various theorists regarding the nature of visitor engagement have already been seen to include the work of Annis (1974), Roberts (1997), Falk and Dierking (1995, 2000), Packer and Ballantyne (2004), Pekarik, Doering and Karns (1999) and Silverman (1995). Of additional relevance to this phase of the study are the perspectives of Heidegger as they pertain to the phenomenological nature of engagement, in particular his concept of unconcealment.

More than just unconcealment, however, Heidegger (1927/1962/1997) views the concept of *aletheia* to also incorporate concealment. As mentioned in the previous chapter, the revealing of an entity in a particular fashion prevents its simultaneous revealing in another way, meaning that such other way must

necessarily be concealed. Such process of unconcealment and concealment *is* the truth of Heidegger's Being, so that which is subject to such revealing and unrevealing is the 'essence' of an entity and makes it what it is. Interestingly, one might consider that the theme of Rejection is represented by such a concept of concealment just as the other themes appear to be explained by that of unconcealment.

In a similar way that Heidegger unconceals the essential reliability of a pair of shoes in Van Gogh's painting (quoted in the previous chapter), one of the participant's provided the following insightful description of a certain AWM exhibit:

*There's a watch here that someone was carrying when they disembarked from one of the ships at Gallipoli and the watch has stopped. So the caption says as soon as the person jumped overboard they were killed. I found it really chilling. The fact that it's a really tangible point at which someone's life had stopped. It's so definite and precise. It's such a definite record of a death in a sense. It's something to do with the time. Time has stopped and life has ended so definitely. That really grabbed me. (AWM,13,RT,29-35)*

Concerning the artwork on display at both museums of this study, Heidegger's consideration of the nature of engagement might also be relevant. In commenting on the relationship between art and the viewer he asserts that art must provide a different form of understanding to that of everyday existence. Allegorically and symbolically it must manifest more than just itself. It must reveal at its core something that is new and suitably complex such as values and identity. And it must encourage reflection more than what is simply perceived by the senses. In the words of Heidegger (1935/1977, p.196) '*Art then is the becoming and happening of truth*' (italics in text).

In summary, museum-based learning can therefore be viewed as resulting from the engagement between the experiences of the individual and the experiences of the exhibit. As such, both visitors and artefacts can be viewed as 'bundles of experiences' with learning resulting from their interaction. In attempting to understand such interaction it might be said that Heidegger metaphorically lights the way. Through his phenomenological concept of concealment and

unconcealment he lays bare the process by which museum visitors engage with exhibits and thereby allow learning to occur.

### **Reflection**

The importance of reflection in understanding the nature of experience has been previously discussed. It has also been referred to with respect to experiential learning and it is in this context that it accrues its significance as an essential characteristic of the museum experience. More particularly it inverts the usual relationship between the two such that it is the integral nature of reflection in experiential learning that validates, in terms of this study, the latter as an appropriate 'prism' through which to consider the visitation phenomenon.

Such an approach is furthered with the theoretical assistance of Boud, Keogh and Walker (1985) who somewhat pragmatically define experience as that which 'consists of the total response of a person to a situation or event: what he or she thinks, feels, does and concludes at the time and immediately thereafter' (p.18). Similarly they define reflection as 'a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations' (p.19).

Such experiential learning appeared to be evidenced by participants as they moved from exhibit to exhibit, integrating the experience from one into the other in order to gain new ways of understanding, thinking, feeling and acting, as in the following excerpt:

*Coming in here and reading the introduction of the Western front and seeing the small diorama here of the soldiers sitting in the mud really gave me a feeling of perspective...coming in from ANZAC and Gallipoli, which we have, as essentially the pinnacle of the First World War experience. Coming in, moving into the wider context of the war really gave me a sense of that idea of construction of national identity and it being built up as more perhaps than it was. The sense of cheapening maybe. I really get the sense of what's out there has been constructed and it makes me, it sort of lessons any reaction I have to it in a strange sort of sense. It puts me at a distance to it when I see the large context. (AWM, 13, RT, 72-84)*

As suggested by Rennie and Johnston (2004), experiential learning can therefore be viewed not as a discrete event but rather as an evolving process that is cumulative and iterative over time. As a consequence, it could be argued

that reflection can occur at any stage of the visitation process including during the examination of exhibits, moving from one exhibit to another, or even after leaving the museum.

Moreover, such reflection is evidenced not only with respect to museum exhibits, as objects of phenomenological intentionality, but also with respect to the self which as noted in the previous chapter be defined or re-defined, in part or in whole, by way of such phenomenological disclosure. In other words, reflection includes reflecting on oneself in the process of undertaking a reflective interpretation of the exhibit, sometimes with interesting outcomes:

*And it gave us pause for thought about what makes a history. What makes a landscape? My reaction was that I thought this was a very anthropocentric way of looking at it. Because when it says the histories of ways of seeing the land, the implicit assumption is that people are doing the seeing and they are noting down the way that they see it. And that's sort of implying that human perception plays some crucial role in the history of the land. I thought that was very anthropocentric. I was thinking, human history is the blink of an eye in geological terms. So that is interesting. That was something that made me think about what makes history. (NMA,2,RT,21-28)*

In that sense it could be argued that both exhibit and visitor share the experience of Heidegger's unconcealment of the ontological nature of 'Being' which is engendered through the process of reflection.

Finally, it should be noted in terms of the research method of the second stage of the Main Study that reflection was deemed to occur after, rather than during, the revisiting of the tour by participants and researcher. During such retours the transcripts evidenced the fact that all participants successfully recounted their previous partnered visit in terms of how they were thinking, feeling and behaving at the time rather than what they thereafter considered about such cognitions, emotions and/or behaviour.

In summary, the nature of reflection suggests that each exhibit experience not only influences the cognitive and affective learning of itself but also the learning of those exhibits that have preceded it and, to a greater or lesser extent, the nature and degree of learning of those that are to follow. Thereby it can be



viewed as a process of increasingly informing the individual as to both the exhibits and themselves as they undergo subsequent experiences.

### ***Emotionality***

The fourth thread, that of emotionality, is used here to encompass all the affective circumstances that speak to and encourage the phenomenological experiencing of emotional engagement.

Much has already been said in this chapter and those preceding it about the nature of affect, feelings and emotions and their fundamental importance in the process of learning. In that regard Falk and Dierking (2000, p.21) write that learning in museums needs to be 'emotion-laden' while Campbell (1997), Damasio (1994) and Jaggar (1989) posit that emotions are central to the process of meaning-making. Graham et al. (2000) also contend that they play a critical role in the sense of self. In terms of this thesis, the integral part played by emotions in the visitation experience is clearly evidenced by the following excerpts from the second stage of the Main Study:

*Poetry touches me a lot more than other mediums... 'I hear his widow cry at night, I hear his children weep and always within my soul, Oh god the dead man's blood doeth weep'. I think it is really sad. (AWM,7,RT,67-70)*

*(T)his case here has got the Trench Club which was used in hand-to-hand combat. And the caption says, 'Used to kill silently'. And that really made me feel a bit cold. It's a little bit cold-blooded. When you kill someone silently you're killing them with so much more intent than when you're shooting them. And that sort of heightened the horror of the war. (AWM,13,RT,112-117)*

While Heidegger did not write or speak specifically about emotions, he did do so about moods and their importance in the life of Dasein. Indeed, he considered them to be sufficiently important to be viewed as 'a primordial mode of Dasein's Being' and as such discloses Being-in-the-world to Dasein (Watts 2001). As previously noted, the distinction between the two states is based on intentionality in that emotions are both directed at something and triggered by environmental circumstances, while moods are Being-in-the-world-as-a-whole and, as generally uncontrollable, tend to appear and disappear as they please.

Moreover, Heidegger posits that moods are ever-present such that Dasein is never moodless. It is through such continuous moodiness that we view the totality of our existence in a particular way that in turn affects our emotions and behaviour. As such, Heidegger endorses the importance of emotions. In similar fashion Campbell (1997), Damasio (1994) and Jaggar (1989) suggest that they are fundamental to the process of meaning-making because they inform us of the personal, meaningful connections that are being made within an experience. Seen in reverse, the experiences which induce an emotional response in an individual provide a means by which we might deduce the personal connections being created within that individual and hence their character. In the words of Denzin (1984, p.1) 'To understand who a person is, it is necessary to understand emotion'.

### ***Meaningfulness***

While the term 'meaning' might be deemed to refer to the interpretation of a word, sentence, or symbol, 'meaningful' has a sense of that which is considered significant and relevant. The denotation *meaningfulness* in the context of particular essences resides in a composite of the two, in that it is more than just comprehension of the exhibit, as understood by way of the object and any interpretive devices, but rather is the significance to the individual by virtue of its importance as revealed phenomenologically to that individual. In other words, it is not just meaning but the importance of the meaning that is pertinent here. The point is nicely demonstrated in the following quotation from Worts (1990, p.9):

Museums are essentially charged with the responsibility of facilitating a process of human growth, be it intellectual, emotional, spiritual or social, that can and does occur when people interact in a 'meaningful' way with objects that are at once both unique and highly symbolic. It is through this growth that an individual can develop a sense of his/her relationship to a set of collective values, beliefs and behaviours.

Indeed, Silverman (2002) considers meaning, or rather 'meaning-making', to be so integral to the museum experience that she argues for its primacy over learning which she contends less-than-adequately encapsulates all important behaviour which occurs within the museum environment. In the sense that all

meaning in the museum depends on what the individual considers important (meaningful) the point is well made. Perhaps of more relevant assistance to understanding the nature of meaningfulness is the contention by Dirkx (2001, p.1) that:

personally significant and meaningful learning is fundamentally grounded in, and is derived from, the adult's emotional, imaginative connection with the self and with the broader social world.

In other words, to understand meaningfulness one must first understand self. In the following example taken from the Main Study the issues of emotion, learning, and self all appear to come together in a manner that connotes personal meaningfulness:

*The home-made periscopes and the firing mechanisms here would have just been very much rigged up out of whatever material was available. Really reminded me of being young and being a kid when you build things out of whatever scraps you had lying around in Dad's shed. And more often than not, pinching his good timber and he'd get really pissed off at you...very much a nostalgic reminiscence. Being young, being innocent. That whole sort of being a child. Things you often look back on and smile. (AWM,13,RT,48-57)*

While various phenomenological theorists provide different perspectives on meaning, the adoption of a Heideggerian philosophy in this study begs the question as to his interpretation of the concept. Just as his discussion on moods spoke to the essential nature of emotionality, so too does his concept of *understanding* speak to the phenomenological nature of meaningfulness. By contending that for anything to be understood there must already exist in Dasein some form of preliminary understanding, Heidegger is preparing the ground for meaningfulness with its attendant interpretations on the nature of Being-in-the world. This applies to Dasein's ability to both interpret an item (a museum exhibit) as being ready-to-hand or present-at-hand as well as to see and recognise future possibilities that provide meaning (interaction with exhibits).

Such interpretation not only relates to Dasein but also to non-human entities. As noted in the previous chapter, an item is interpreted by means of its *as-structure* of usefulness and purpose in terms of the possibilities that it provides

to Dasein. Heidegger calls this form of interpretation *in order to*, such that an artefact would be in a museum in order to educate visitors. Understanding the as-structure of entities with respect to their purpose and their purposeful interrelationships with other entities provides Dasein with *meaning*. More so, through Dasein's primordial understanding of its own interrelationships with other entities it is able to grasp the meaning of its own Being and the possibilities of its Being-in-the-world. To this end, Heidegger provides us with an understanding of the purpose and essential nature of meaningfulness as it relates to exhibits in the museum context, for it is meaningfulness that forms the basis of the interrelationship between exhibit and visitor. In other words, if such interaction is not deemed to be meaningful by Dasein, both in the sense of his Being-in-the-world and the exhibit as its being ready-to-hand, then such interrelationship lacks the necessary quality of unconcealment which Heidegger pertains to be essential to the concept of truth.

Finally, one might revert to Gardner (1982, p.50) who stated that there exists:

a basic and pervasive human need to invent meanings, and to invest meaning in one's world...(and) to transform experience constantly to uncover new meanings.

That is, in the lifeworld of museums meanings should not be viewed as ends in themselves. Rather, meaning begets meaningfulness by virtue of their importance to the self of the individual. In other words, it is the self of the individual that determines the meaningfulness of the experience and not the exhibit nor indeed the disembodied experience itself. For it is only by virtue of such personal meaningfulness that learning can ensue.

### **Concluding Comments**

While the themes identified earlier in this chapter provided a means of data reduction through which the experience could be better understood, the essences can be seen as the ideas that unify all the themes. While the themes are individually dispensable to the phenomenon, the essences are so cardinal that their removal would completely undermine the experience as the experience. In other words, while the experience can remain intact with the absence of any one of the themes, the removal of a single essence would

fundamentally alter the experience to such an extent that it would no longer be the experience. As a consequence they are conceived as five independently constituted but interacting threads which are collectively intrinsic to the experience.

In summary, the data of this study points to the museum learning experience as the continuous interplay between the five essential characteristics of Physicality, Engagement, Reflection, Emotionality and Meaningfulness.

Such essential nature (according to the data of this study) is suggested by considering their removal such that:

- without physical exhibits there is not the necessary object(s) required for learning to occur;
- without engagement between exhibit and individual there is no basis for the necessary connection by which learning can proceed;
- without reflection there can be no assimilation of new information inherent in the process of learning;
- without emotionality there is no personal motivation necessary for the intrinsic learning that occurs in the self-directed environment of museums; and
- without meaningfulness there is no understanding and importance given to the learning process by the individual.

It should be noted, however, that while it is suggested that the removal of any of the above-mentioned essences necessarily negates the process of learning, it is not suggested that their presence even in totality ensures that learning will necessarily occur. To make such an assurance is beyond the bounds of this study. Nevertheless, it does appear that these essences not only explicate the visitation phenomenon but also resonate with the discourses on learning, emotion and museum learning noted in previous chapters.

That notwithstanding, there still appeared to be a sense of incompleteness, an absence of a defining quality by which the threads of the five essences might be drawn together in a way that more fully and completely explained the nature

of the museum visitation experience - a singular quality so essential that without it such phenomenon could not exist.

While the essences defined thus far might be classified as *particular essences* in that they pertain to specific characteristics of the phenomenon, it may be reasonable to suggest that there exists a characteristic so fundamental in nature that it represents a cumulative construct of the particular essences - what might be termed the *general essence* described in the previous chapter. To fully explain the essential structure of the museum learning experience necessarily requires an identification of such a general essence.

### **Looking Backward and Forward**

Following the adoption of a phenomenological approach to the inquiry this chapter began with a description of the 'raw data' of the lived experience of both museums. Thereafter, through a process of data reduction there emerged six themes defined by sixteen categories that provided the 'structures of meaning' for the experience.

Through a further process of abstraction and deduction five particular essences of the phenomenon were identified that provided common qualities across all themes. Such essences were considered to be of such import that without any one of them the experience as the experience would no longer exist.

As such, it could be considered that the principal purpose of the study, as stated in chapter one, had been satisfied. The essential nature of the learning experience of selected visitors to the chosen museums had arguably been revealed in terms of a phenomenological approach that provided both the themes of meaning and the essences of the lived experience. It appeared that the study's central research question regarding the essence of the learning experience and the first three sub-questions related to the essential structure, constituent elements and interpretive meanings of that experience had been answered.

However, there still remained a sense of incompleteness. Intuitively there appeared to be a degree of understanding that could be accessed at a deeper

level than that already revealed. More particularly it was suggested that the experience would not be fully explicated without considering and identifying what might be termed a *general essence* that unifies all the particular essences, bringing them into a cohesive state of 'boundedness' both spatially and temporally. Such identification and the theorising that flows from such considerations is the objective of the following chapter.

## **CHAPTER 9 : THE ESSENTIAL STRUCTURE OF THE LEARNING EXPERIENCE**

### **Introduction**

The objective of this chapter is to utilise phenomenological theory and textual analysis to determine the nature of the essential structure of the museum learning experience.

As such, the chapter approaches the issue sequentially beginning with a further consideration of the phenomenological writings of Husserl (1913/1982), Heidegger (1927/1962/1997), van Manen (1990/1997) and Sokolowski (2000). Thereafter it considers the nature of narrative as the basis of visitor interpretation of exhibits as well as the autobiographical interpretation of self. This is followed by an examination of interest as the principal emotion for such interpretive learning. The general essence is then posited as the relationship between the narrative-based interpretation of exhibits and the experienced emotion of interest. Thereafter the essential structure of the learning experience is defined based on textual evidence and intuitive understandings. The chapter finishes with a deconstruction of the exhibit interpretation into its constituent and indivisible elements.

### **An Investigative Perspective**

In this stage of the study the investigative process needed to move beyond the empirical induction of the particular essences into eidetic imagination proposed by van Manen (1990/1997, p.33) in order to reach a deeper and more intuitive insight.

In this regard, the essences, themes and text were repeatedly interrogated to discover a 'connective tissue' of essential meaning. *Imaginative variation* (Husserl 1913/1982) was used to determine 'what elements we could remove from the thing before it 'shatters' or 'explodes' as the kind of thing that it is' (Sokolowski 2000, p.17).



Reference was made to Heidegger's (1927/1962/1997) concept of unconcealment by which essential meaning is revealed according to the possibilities that the individual projects onto an object. It is this, he suggests, that gives an entity its meaning and allows the individual to understand and interpret it. Without a sense of such possibilities, the entity has no meaning. In other words, the hermeneutic phenomenology of Heidegger is essentially a process of interpretation. As previously commented upon in analogous terms (chapter three) with respect to a neurological perspective, perception is interpretation and interpretation is meaning (Kandel 2006). Consequently, by virtue of the process of interpretation the meaning-making interaction between visitor and exhibit might be understood.

The question was now one of determining the form such interpretation takes.

### **Interpretation and Narrative**

In answering that question Roberts (1997, p.132) states '(M)useum education is essentially a narrative endeavour' to which Skolnick (2012, p.85) adds 'If we are to fully appreciate the operative use and potential of narrative as a tool in the work of museum making, we must understand it as a means of interpretation.' In other words, interpretation in the museum context appears to be made manifest through the device of narrative as 'the architecture that both structures and conveys intended meaning' (Skolnick 2012). Support for such a proposition seems to be evinced by Paris (2002, p.44) when he argues that:

The notion of story is crucial when considering knowledge derived from objects because museums educators know that objects on display may be inert knowledge in the same way as facts on a page.

Such use of narrative as a means of interpretation appears not, however, to be limited to museums. Both Sarbin (1998) and Herman (2003) maintain that human beings organise experience, determine meaning and interpret their lives according to story. Dryden (2004, p.257) forms a nexus between narrative, imagination and life by contending that '*Narrative...can be understood as an elaboration of the imaginative structures that we use to conceive of the passage of time*' (italics in text).

As such, narrative consciousness can be said to pervade, orientate and comprehend much of human perception such that 'it is quite difficult to locate instances of human life that are alien to narratives' (Botella et al., 2004). Even the static and spatial (for example, a photograph) are 'read' according to story concepts including cause, effect and imaginative interpretation (Abbott 2008). Indeed, the writer posits that comprehension of all that which is perceived only emerges from an understanding of the associated story, such that 'people think through the agency of narrative' (p.205). The point is adequately made by participant 'J' (2nd stage Main Study) where comprehension was only achieved after the acknowledgement of a story underpinning the exhibition:

*It felt like there was a point. We were getting to a point, achieving a goal and not just walking through a series of dioramas or exhibitions and for that reason it was becoming a more enjoyable experience...There was a story. (AWM,J,RT,79-91)*

To distinguish the concept of story from that of narrative, Abbott (2008) refers to the former as an event or sequence of events and the latter as how the story is told. That is, narrative can be viewed as a sequentially organised representation of a series of events that has continuity and cohesion (Chatman 1990; Herman 2003). The derivation of the word 'narrative' from the Sanskrit *gna* (knowing) and the Latin *narro* (telling) provides the duality of meaning of the term that points to both the absorption of knowledge as well as its expression (White 1987). As such, narrative can be infinitely variable as the events portrayed in a story are expanded, contracted, inverted or reconstructed by the narrator and/ or recipient. In this sense the development of narratives can be viewed as a constructivist process, echoing the constructivism of museum learning discussed in chapter three.

The structure of narrative can also be viewed from a phenomenological perspective according to the hermeneutic circle introduced in chapter seven. In this context the connection between parts and wholes refers, in the case of the former, to those events that take their meaning from the narrative as a whole and, in the case of the latter, to the narrative as a whole being constructed from the events by which it is constituted. Similarly, the organization of events in a narrative according to a spatial-based timeline allow for a consideration of ends

and beginnings such that the end is imagined at the beginning and the beginning is remembered at the end. It is this inter-relational nature that lends itself to a consideration of 'narrative time' (as against chronological time) which appears particularly apposite in the constructivist museum environment noted above.

### ***Narrative Based Interpretation***

To understand the form of interpretation proffered by way of narrative, Herman (2003) suggests three variants. The first relates to the cognitive processing involved in individuals making sense of narratively organised texts. The second considers the use of narrative as a tool or aid for thinking such as in intellectual arguments and analysing competing 'what if' scenarios. The third refers to narrative as an instrument for sense-making, 'a semiotic and communicative resource...(by which) thinking can be described as organized by narrative means' (Herman 2003, p.12).

The narrative form of interpretative meaning-making described in the last variant is noted in the museum context by Kidd (2012, p.80-81):

Our respondents showed themselves to be in a constant negotiation of the physical museum, the stories being presented, and their own personal responses to those stories...it can never be assumed that such narratives will accord with those being projected and actualized by the institution.

Consequently, in terms of the literature and textual evidence, it is suggested in this study that museum interpretation be viewed as a constructivist-narratological construct whereby information from new experiences continually interacts with the cognitive and emotive schemata of existing narratives to form new narratives of meaning that have both coherence and understandability for the individual. Such a paradigm appears to complement the work of Piaget (1951/1962), Lewin (1951) and Kolb (1984) by considering interpretation as an experiential learning process seen through the prism of narrative. In this constructivist and narratological sense, interpretation of exhibits can be viewed as that which can be structured by way of narrative in order that learning might be facilitated.

### ***Narrative and Self***

Such narratological constructivism appears to be applicable not only to objects but also to the interpretation of oneself. According to Maynes, Pierce and Laslett (2008), the key mechanism that creates continuity through time for the autobiographical self is that of *self-narratives*. These are viewed as an assemblage of stories told by the self about the self in what Dennett (1991/1993, p.418) refers to as a 'web of discourses'. Arguing from a constructivist position, Bruner (2004) suggests that such narrative ways of knowing privilege lived experience which provide the self with unity and purpose, support actions, and make sense of the interplay between self, others and the world. Incorporating the learning model of Piaget and Inhelder (1969) into such experiential narratives, Osatuke et al. (2004) suggest that 'the assimilation model considers stories as *meaning bridges* - the semiotic glue that holds our experiences together' (italics in text). In short, self is constructed by and through narrative (Fireman, McVay & Flanagan 2003; King, 2000).

Moreover, such narratives are coupled with emotions in reoccurring interpretations such that emotions make identity narratives compelling and are central to their creation (Haviland & Kahlbaugh 1993). Indeed, emotions are instrumental in not only generating further actions but also extending one's biography into belief systems that may change and grow but are consistent in theme (Magai & Hunziker 1993).

It should be noted, however, that autobiographical narratives do not represent the past 'as it actually was'. Rather, they are constructed from realms of meaning, rationalisations, subjective perceptions, selective memory, emotion and even imagination. In this regard, Spence (1982) distinguishes between *historical truth* and *narrative truth*. While personal narratives are able to provide both forms of truth, the writer suggests that the latter are more valuable in terms of their ability to provide understanding of the individual, what is important to them, and how they construct meaning in their lives.

Once accepted, such narrative constructs are so imbedded that Simmons (2006, p.52) argues that old narratives have to be replaced with new ones rather than just factual information:

A good story helps you influence the interpretation people give to facts. Facts aren't influential until they *mean* something to someone. A story delivers a context so that your facts slide into new slots in your listeners' brains. If you don't give them a new story, they will simply slide new facts into old slots. People already have many stories they tell themselves to interpret their experiences. No matter what your message, they will find a story that fits for them...(or) they will tend to discount or bend your facts to fit the existing story.

In this way, individuals interpret new facts regarding the self to mean what their internal stories tell them they mean. It is therefore only through the narrative of constructed experience that new information can be assimilated into the self such that the internalised interpretive and autobiographical narratives are changed.

### ***The Phenomenology of Narrative***

Thus far, the nature of narrative has been examined in its common or literal sense. It is now considered phenomenologically with a view to determining how the museum exhibit is experienced in the lifeworld.

To move to a more phenomenological position it is suggested, in the light of the literature above, that narratives in the museum context should be considered in terms of *processes* rather than ready-made constructs with communicative intent, meaning and emotion. In this sense the process might be seen as one of experiential 'narrative-making' whereby the individual interprets an exhibit in terms of what is *perceived* to be its narrative:

*Again the Holden (car). It makes it more interesting because it has a kind of personal story to it. It's not just an FJ Holden, it's Molly's FJ Holden...rather than just seeing the Holden, having a story behind it. It kind of reminds me a little bit of my grandmother because I can imagine her doing that. It kind of gives you a sense of sentimentality to something. Unless you were a car fanatic it probably wouldn't have much meaning but having that story behind it as well, kind of gives you a lot more meaning to it. (NMA,10, RT, 277-288)*

Moreover, such narrative-making appears to generate what might be termed an *emergent narrative*. Being the product of the visitor's individual interpretation such a concept represents an interplay between the experience that makes for the personal story and the personal story that structures the experience. By virtue of this interplay the narrator discovers the meaning and significance of the experience (Fireman, McVay & Flanagan 2003). Such a personally constructed narrative emerges through the process of 'blending' whereby the cognitions of remembering, constructing and imagining create narrative frameworks (Fauconnier & Turner 2002) often automatically (Gerrig & Egidi 2003). Rather than the openly explicit and factual forms of narrative-telling often used by museums, such narrative-making can be viewed as subjective, inferred and emotional:

*This is the propeller off the mini-submarine. One of the mini-submarines that was destroyed in Sydney Harbour. I sort of realise, here is the propeller of a submarine that was in Sydney Harbour which was bombing and torpedoing targets in Sydney. My brother lives in Sydney. You know, right next to the water when he was in Kirribilli. So what if we lived in 1945? It's scary because I have never lived in Australia when Australia is threatened in any sense. If you look at it in a literal sense it's just a propeller. But it's symbolic of an instrument of war which was meant to kill Australians and destroy Australian targets. So in a way you feel threatened.*  
(AWM,8,RT,274-283)

As such, it is suggested that the development of the emergent narrative can, in Heideggerian terms, be viewed as the *wesen* or 'essential unfolding' process of unconcealment and concealment which he argues to be the essence of the Being of an object (Polt 1999). It is this process that enables the interpretation of the object to 'transcend' (from the Latin, *trans* and *scando*, meaning to 'climb over' or 'go beyond') from what van Manen (1990/1997, p.177) refers to as the *empirisches Wesen* of the empirical essence (equivalent to Hayllar's 1999 particular essences) to the *Grundwesen* of the basic or fundamental essence (equivalent to Hayllar's 1999 general essence). Such interpretive unfolding should not be considered as occurring rapidly but rather something that 'takes reflection, brooding about what it is you know' in order to consider not just what *is* but what is *meant* (Bruner 1996, p.129).

Due to the meaning-making processes noted above, the emergent narrative should also not be seen as thereafter fixed but rather something continually forming and re-forming during and (potentially) after the experience according to the constructivist process of interpretation, re-interpretation and reflection. Indeed, such reflection appears not only in 'real time', that is as the experience unfolds, but also in 'experiential time' as the visitor both remembers back to past experiences and projects forward to the possibilities of an imagined future as evidenced in the following extract:

*That picture there I found really interesting - a hand-over of land between Europeans and Aborigines. It's a very childish picture but I stood there for a moment and it made me remember my Aboriginal studies; a thing that I did back in school for about a year. There is a story here about this stone that had been taken which was extremely important to the tribe. It was given back and it made me nearly cry. All the Aboriginal clansmen and all the European descendants gathering and handing it back. It just felt so beautiful...like we can now be friends again. (NMA,1,RT,175-184)*

Further, it is suggested that the emergent narrative can be seen to be associated with the transcendental self of the visitor. In a holistic sense the autobiographical narrative of the self comprises current knowledge, past experience, beliefs, attitudes, values and interests that together constitute existing 'ways of knowing'. Just as the emergent narrative provides the unconcealment and concealment of the Being of the exhibit so too can it be said that the autobiographical narrative reveals the Being of the individual. In this sense it might be argued that the unconcealment of both the individual and the object together *create* the emergent narrative. Moreover, as the emergent narrative develops there is the opportunity for it to be assimilated into existing mental schemata of the self that are affirmed or altered by virtue of such assimilation, as evidenced in the following text:

*Just the mug shot and looking like a prisoner shot. Gives such a human element, getting up close to them. It's just, I don't know, because you can see their faces...You just think about how there were just so many young men there. It makes you imagine, if they hadn't gone to war what they'd be doing now. Or if they'd had kids, what they would have achieved...It's upsetting that they had to die in the war...That's the thing. They just look like us, they do. There was a photo before that just looked like one of my mates. It could be any of us. It makes you think. (AWM,16,RT,231-239)*

Finally, to the extent that the development of the emergent narrative is a personalised construction of meaning, it can be considered to be significantly different from the didactic approach assumed in Hein's (1995) Systematic Museum noted in chapter three. That is, while its nature might be influenced by the museum, it is directed in a constructivist sense by the individual:

*Going through this whole Japanese section I started progressing onto what's the story told to the other side? Like were we also doing these sorts of atrocities? In our prisoner of war camps what was happening? Are we being told the whole truth about wars... In the Cowra camps there was some 20,000 prisoners of war and they escaped. And the local farmers were told it didn't matter if they were dead or alive. And apparently out of the 20,000, the majority came in dead. So sort of backed up my other side of the story. (AWM,12,RT,193-204)*

In summary, the development of an emergent narrative is suggested as an ongoing interpretive and constructivist process that seeks to make sense of an experience using the cognitive schemata of narrative. Thereby the Being of an exhibit (or exhibition) is made evident to the transcendental self that is affirmed or altered as a result. In this sense it echoes the thoughts of Hooper-Greenhill (1999, p.xi) when she states:

Today, we are coming to grips with learning theories that tell us that people are active in construing their own particular interpretation of their educational experiences, according to their existing knowledge, skills, background and personal motivation. From this perspective, knowledge is relative, it will be subjectively reviewed and used, and learning is therefore unpredictable.

### **The Affective Turn**

Chapter four commented on the importance of emotion to the cognitive process of learning. In short, it was shown that information that makes an impact through powerful emotional connections survives to be stored into memory (Boitano 1996; Haberlandt 1998; Kupfermann & Kandel 1995). Such duality of cognition and emotion is described phenomenologically by Denzin (1984) in terms of emotion always being interrelated and present in the individual's cognitive stream of experience. In terms of determining the essential structure of the museum learning experience, the issue in this study, therefore, was to identify the principal emotion that interacts with the cognitive processes of the emergent narrative - one capable of transcending, like the emergent narrative,



from the *empirisches Wesen* of the particular essences to the *Grundwesen* of the general essence.

In answering this question, it was noted that implicit in the personal construction of the emergent narrative was a necessary degree of cognitive attentiveness. Indeed, Heidegger's concept of unconcealment suggests a mindful concentration whereby the Being of an object might be unconcealed. A similar concept is referred to in chapter three using the term 'selective attention' in that only some objects perceived in the environment are selected for further mental processing (Kandel 2006). By way of (what this study refers to as) an *affective turn* the cognition of attentiveness was examined in terms of the various emotions evident in the text. The objective was to determine whether there appeared to be an emotion associated with such an affective turn - an emotion that the data suggested occupied a position of primacy with respect to the cognition of attentiveness and hence to the emergent narrative. As the following extracts indicate, the emotion of interest appeared to offer such an affective primacy:

*When they have the woollen jumper and that; they sort of tell a story. It's a personal story within a larger story. It gives you a better feel for it; what they had to go through. I think you can relate to it emotionally more as well; you know what I mean - the larger stories. It's interesting. (AWM,A,RT,116-120)*

*Over here, Mussolini and Hitler. That's the most evil photo, and just knowing, you know, it was just these two men who did so much. It was a feeling of disgust, absolutely, but also awe. Just one man who influenced so many people and did so much really interests me highly. It's the whole power thing. (AWM,9,RT,262-267)*

By virtue of such apparent importance, the concept of interest afforded consideration as the emotive component of the general essence (the cognitive component being that of the emergent narrative as noted above). That is, while the literature in earlier chapters indicates a theoretical, neurological and empirical relationship between learning and emotions in general, the study data tends to indicate that the involvement of a particular emotion, that of interest, is of primary importance. Indeed, it is suggested that while the visitation experience may be accompanied by a range of emotions, the cognitive processes of learning will only occur when the emotion of interest is present.

As a consequence of this reasoning, and with the resultant import of interest in mind, it was considered necessary to explore the literature in order to determine its nature.

## **The Nature of Interest**

### ***Defining Interest***

Even one hundred years after it was stated, the definition of interest provided by the educationalist Arnold (1910, p.183) appears appropriate when he suggests it to be:

essentially a striving, a conation, an appetition, a tendency towards something. An attitude is taken towards a situation, an impulsion is felt, a desire to come into closer relationship with an object which is present. Between the subject and the object there is an unrealised condition felt in its motor aspect as a strain, a stress, a moment of tendency towards further control.

Arnold's definition is considered commendable because it emphasises both the psychological and physiological attributes that are aroused as well as a certain anticipatory excitement. In a somewhat more phenomenological fashion, Izard (1977, p.216) describes the directional and inquisitional elements of interest thus:

the feeling of being engaged, caught-up, fascinated, curious. There is a feeling of wanting to investigate, become involved, or extend or expand the self by incorporating new information and having new experiences with the person or object that has stimulated the interest. In intense interest or excitement the person feels animated and enlivened. It is this enlivenment that guarantees the association between interest and cognitive or motor activity. Even when relatively immobile the interested or excited person has the feeling that he is alive and active.

In both definitions the inherent expectation is considered to be 'end-seeking' in that it operates from a present position but points ahead to a preferred situation that excites innervations and, when realised, is expected to result in a condition of pleasure and satisfaction. In this sense, the word 'interest' betrays its Old French heritage of *interesse* derived from *inter* 'between' and *esse* 'to be', meaning to be among and in the midst of things.

Contrary to other emotions, interest requires such interaction between individual and object not only to be highly specific (that is, directed at a specific object which has stimulated the interest) but also able to be influenced by the individual's own efforts (that is, intrinsically motivated and self-directed) (Renninger 2000; Renninger & Hidi 2002). By virtue of such characteristics, interest is not only primarily a self-expressive activity but also displays an adaptive role through motivating diverse experiences in the circumstances of new opportunities and unforeseen events (Fredrickson 1998).

From the empirical data of previous chapters interest appears to be constituted by two variants. The first might be viewed in terms of 'interest as a part of emotional experience, curiosity, and momentary motivation' (Silvia 2006, p.4). Naceur and Schiefele (2005, p.156) refer to it as 'a momentary state of effortless concentration, stimulation and engagement' resulting from the individual's innate propensity for exploration of that which is perceived as novel, surprising, complex or ambiguous:

*Oh, yeah, the one with the flag. I thought that was interesting just because I didn't know about it before; about the competition they had for the design of the flag and stuff so it was like, 'Oh, OK, that's new. I didn't know that before'. (NMA,N,RT,4-6)*

*I found that fascinating that he (ex-Prime Minister Harold Holt) just disappeared and when me and (Respondent R) were talking about it we were wondering what could have happened; if it was some sort of conspiracy that he's gotten out and run away or something. Just an extraordinary thing to happen, especially to a Prime Minister. I just felt, I don't know, just really interested and puzzling. A mystery. (NMA,Q,RT,7-11)*

The second appears to be that which Hidi and Renninger (2006, p.113) refer to as 'a person's relatively enduring predisposition to re-engage particular content over time':

*I really like Streeton, so I was 'Oh! Streeton!'. And I ran in here. But it was interesting that Streeton was commissioned with these war paintings even though he was a landscape painter and that's how he did them. (NMA,C,RT,145-147)*

*I'm interested in those sort of things. I do engineering. Just from the engineering point of it I find interesting. (AWM,B,RT,14-15)*

Silvia (2006) refers to the first condition as *interest* while the latter he terms *interests*. Krapp, Hidi and Renninger (1992), who use the terms *situational interest* and *individual interests* to make the same distinction, consider the former to be that which is created by conditions or concrete objects in the environment. Thereby, it can be described in terms of the cause of the interest, the conditions that induce interest (its 'interestingness') as well as the person who exhibits the interest. In this way, situational interest can be viewed to be like curiosity in that both represent motivational states that encourage exploratory behaviour in order to acquire new information.

However, they are not identical, for while situational interest can develop into longer-term individual interests, curiosity in and of itself appears not to exhibit this characteristic. Individual interests, on the other hand, can be defined by specific classifications (for example, movies, sport, reading etc.) as well as more generic activities such as an interest in learning. In as much as individual interests define the continuing preferences of the individual, Prenzel, Krapp and Schiefele (1986) postulate that they form a basic component of the self-concept.

While situational interest might generally be recognised as leading to the development of enduring individual interests, the reverse is also true. In other words, an object becomes interesting by virtue of its interestingness or its alignment with the individual's particular dispositions. In this way, Hidi (1990) suggests that situational and individual interest do not operate in isolation but rather interact and influence each other's development in a way that stimulates connection and constructs meaning.

### ***Interest as an Emotion***

While agreeing on the importance of interest, researchers appear to be at odds in deciding as to its nature. While some consider it to be a cognition (Ekman 1992; Oatley & Johnson-Laird 1996; Ortony, Clore & Collins 1988), and others (Ainley 2006) consider it to be a combination of an emotion, a cognition and a motivation, Izard (1977, 1993) describes it as the most ubiquitous of all emotions.

Supported by findings on the total repertoire of feelings that infants exhibit facially, namely interest, joy, sadness, disgust and anger, interest might be considered not only an emotion but one of the basic emotions referred to in chapter four (Izard 1977). As such, it is the emotion that activates the exploration, investigation, manipulation and extraction of information as well as the basis of the desire for creativity, learning and the development of competencies (Renninger, Hidi & Krapp 1992).

Ellsworth and Smith (1985, 1988) as well as Krapp, Hidi and Renninger (1992) suggest that it is the association with such higher levels of attention, cognitive functioning, persistence and knowledge retention that distinguishes interest from other positive emotions. In addition, contrary to other positive emotions, interest requires the interaction between individual and object to be highly specific (for example, interested in a particular language rather than all languages per se) as well as to be influenced by the individual's own efforts (Renninger 2000; Renninger & Hidi 2002).

Referencing appraisal theory, noted in chapter four, Silvia (2008) suggests that appraisals with respect to interest come in two forms, namely an evaluation of an event's *novelty-complexity* (new, contradictory, unexpected, complex, surprising, mysterious, obscure) as well as *comprehensibility* (potential for understanding) otherwise referred to as a  *coping-potential* (having the necessary skills, knowledge, resources and control). In other words, interest requires a degree of intriguing novelty *plus* sufficient comprehension. The greater the combination of both, the greater the interest (Silvia 2005; Silvia & Turner 2006).

Whilst an event is considered new and complex, Silvia (2008) suggests that it retains its interest whereas when it is understood, it often loses its interest. This does not suggest there exists a level of optimal arousal in an absolute sense but rather a diminution once the object of the interest has been fully comprehended. What can be said, however, is that the new knowledge gained as a result of the interest enables a greater number of things to be interesting. As such, interest can be viewed as 'self-propelling: it motivates people to learn, thereby giving them the knowledge needed to be interested' (Silvia 2008, p.59).

### ***Interest and Learning***

During the nineteenth century the German philosopher, Herbart (1806/1965, 1841/1965), considered that it is interest that leads to meaningful learning, high memory retention and the motivation for further learning. After laying dormant for almost a century, interest was taken up by Dewey (1913) who proposed that it comprises three characteristics, namely an *active propulsive state*, a *basis on real objects* and *high personal meaning*:

To be interested in any matter is to be actively concerned with it. Mere feeling regarding a subject may be static or inert, but interest is dynamic...Interest does not end simply in itself, as bare feelings may, but is embodied in an object of regard...it signifies a direct concern; a recognition of something at stake, something whose outcome is important to the individual. (Dewey 1913, p.16)

Such attraction and importance was reflected in the data of this study as follows:

*I do like all these types of advertisements and all the flags. I really like all the graphics...I like this one, the woman in the Greek cafe. I was very interested in the medium she used because I liked the white on the paper and it was different to all the others. It was familiar, feminine and homely and a comfortable subject. (NMA,P,RT,89-98)*

Further, Dewey (1913, p.21) contends that interest is constituted not only by the worth of an object of regard, but a self-reflective appreciation of such worth:

An interest is primarily a form of self-expressive activity - that is, of growth that comes through acting upon nascent tendencies...if we take into account that it is *self-development*, that self finds itself in this content, we get its emotional or appreciative side. (italics in text)

Such reflexive emotionality is also demonstrated in the data:

*Love ABC TV and the switchboard at the back and how it was done. I stood here for about five minutes listening. I am the TV generation. It is interesting to see the old versions. (NMA,P,RT,115-117)*

Following Dewey, Thorndike (1935) determined that learning is not only influenced by interest but also the 'interestingness' of a particular activity or object as the following extract indicates:

*This was interesting. It was a piece of information we hadn't seen before. It was a welcome change to be able to go into something or see something tactile and be able to touch it and feel it...be immersed, and you could feel a greater connection with the exhibit and come to understand it in a much more conceptual way. It made me feel like I was almost in an actual fire bunker. It gives you an idea of what it may have been like. It was curious and fun. It was fun. (NMA,J, RT, 62-70)*

More recently, research into the interest/learning relationship showed interest to be highly motivating and involve attention, concentration, persistence, an increase of stored knowledge and value ( Krapp 1999; Krapp, Hidi & Renninger 1992; Renninger 1989, 1990). 'Knowledge' in this case involves past experience while 'value' refers to emotional responses such as feelings of competence (Hidi 1990). Such learning from attention and stored knowledge appears in the following excerpt:

*I was telling (participant M) that mum went to the supermarket and she saw that it was the world's richest source of vitamin B or something, so it's like 'Oh, let's feed my kids this'. So when I came here it was like, 'Wow, people really make a big deal out of Vegemite!'. It was interesting that I liked Vegemite. (NMA,N,RT,31-35)*

With respect to text-based learning, researchers found that more interesting texts are processed deeper and are remembered more accurately (Hidi 2000; Schiefele 1999), interested students will be more successful (Schiefele, Krapp & Winteler 1992) and interesting activities predict both longer durations of engagement and the development of greater levels of skill (Deci & Ryan 1985; Fisher & Noble 2004). Such enhanced engagement is evidenced in the following excerpt where both textual and pictorial information appear to have resulted in enhanced personal insight:

*This was an interesting one, the 'Pacific War Ends' display...to be the guy accepting the surrender (of the Japanese), I don't think I'd even feel anger any more. I think I'd just feel pride at beating them. I think I'd just feel weariness and sorrow that so much has happened. It just seemed it was for nought; frustration; a sense of despair really that so much horrible stuff has happened. (AWM,E,RT,53-57)*

Notably, Ainley, Hidi and Berndorff (2002) also found that text statements were seen to be particularly interesting when they are not yet fully understood but still require explanatory inferences, possibly suggesting that they provide both a degree of challenge and a potential for creative problem-solving.

While boredom and confusion are both commonly considered to represent a lack of interest, such is not necessarily the case. Mikulas and Vodanovich (1993, p.3) define boredom as 'a state of relatively low arousal and dissatisfaction, which is attributed to an inadequately stimulating situation'. Confusion, on the other hand, shares high novelty with interest but unlike interest demonstrates low coping potential (Silvia 2006) as demonstrated in the following:

*These we found really, really interesting actually, because you've got this concept of the larrikin which Australians always try and push, which we were really confused about why Australia always tries to push their own sense of humour and try to forge their own identity. (NMA,C,RT,90-94)*

Having previously addressed the cogency of experiential learning to the museum experience, it remains to consider its relationship with interest. In that regard, Boud, Cohen and Walker (1993) contend that experiential learning provides the individual with the opportunity to follow their own interest(s) within a constructivist approach to learning. Thereby, interest might reasonably be deemed to be that which maintains the continuing object-visitor intercourse required to encourage reflection and achieve deeper and more meaningful learning. In other words, it is interest that appears to provide the opportunity for the expansion of learning according to Dewey's (1938/1975) principles of interaction and continuity (refer chapter three).

Moreover, through interest-directed reflection, such learning can operate both during and after direct experience with an object during which time mutable ideas are formed and re-formed. In this regard, it should be noted that such on-going experiential learning relates not only to the subject matter under study but, as stated by Dewey (1938/1975), to attitudes to the learning material and the nature of self. In other words, the individual progressively learns what they find to be of interest through what Dewey (1938/1975) terms the *expanding development of experience*.

In the museum context it might therefore be argued that interest not only stimulates and maintains the interpretative process between individual and exhibit but arguably acts as a metaphorical 'compass' that directs the visitor through the expanse of diverse stimuli to those exhibits that are perceived to be



engaging and meaningful. Such engagement is achieved when visitors are confronted by new circumstances where their existing knowledge is inadequate. As Beard and Wilson (2002, p.17) contend 'if experience only serves to confirm some already held beliefs it will be interpreted as supporting the existing cognitive status quo and little attention will be paid to it. If we do not pay attention to it, the opportunity for new learning will not happen.'

### ***Interest Development***

A recognition of the importance of interest in the process of learning begs the question as to how it might be successfully developed. While reference could be made to Maslow's hierarchy of needs noted in chapter three, Schutz (1973) contends that interest emerges from the 'sediments of meaning' of past experiences (Peillon 1990, p.136). By way of extension, Frijda (1986) suggests that it is elicited not only by those experiences learned from the outside world as it is perceived by the individual but also by the internal thoughts, associations, memories and imaginings of the individual's own psyche.

A developmental approach that appears particularly relevant to museums argues that interests are created by similar motivational sources as evidenced in the *script theory* of Tomkins (1979) as well as Prenzel's (1992) theory of the *selective persistence of interest*. Both theories posit the genesis of abiding interests from initial exposures that prove to be enjoyable. In the case of the former, interest emerges as 'scenes' in an autobiographical narrative of self, with such experiences forming the basis of successful prediction and anticipation of what proves interesting. In the latter, interest similarly evolves and expands from first encounter to continuing freely chosen interactions, each of which offers a continuing degree of cognitive conflict between what is known and what is being learnt (Silvia 2006).

Inherent in both theories is the recognition that interest as an emotion is learned in the same way as any other knowledge. To do so requires the meta-emotional characteristic mentioned in chapter four by which individuals are aware of the emotions they are experiencing (Russell 2003), can think about those emotions as they are experiencing them (Seager 2002), and can think

about such thoughts also during the course of them being experienced (Silvia 2006).

By considering such abilities, Silvia (2006) suggests that *causal attribution theory* appears to provide a suitable basis for consideration of interest development. Using this theory helps explain the development of emotional knowledge regarding interest, such that attributions with respect to past experiences of interest inform cognitive and metacognitive decisions regarding what was found to be interesting, why it was interesting and expectations as to how the interest could be repeated. While such emotional knowledge is conscious, Russell (2003) and Seager (2002) suggest that emotions, including interest and indeed disinterest, can be experienced without being consciously represented. This may explain the museum situation where an exhibit is overlooked without the individual being fully conscious of the circumstances and reasons for their doing so as the extended conversation between researcher and participant in the second stage of the Main Study evidences (researcher comments in parenthesis):

*This is the section on Australian vocabulary and Australian ways of speaking. I didn't like this section. It kind of made me cringe a bit. It's very stereotypical. And I don't feel that I talk like this. And so I felt like I wasn't really Australian or something!*

(So you felt a bit cut off?)

*Yeah, I do. I feel cut off from that. I don't know what a lot of these even mean. I guess you're here to learn things but this is a bit affronting. This is part of your culture and you don't understand it.*

(Do you think you normally feel archetypically Australian?)

*Well no, not really. Because I always get asked about my accent because it's not really that strong an Australian accent and so I guess this kind of reminded me that I have...*

(A different accent)

*Outside blood or something. Yeah, it just kind of annoyed me.*

(Were you always conscious of that, as a child?)

*I think so because when I was little people would say it's kind of posh and that's not a very good word to be described as.*

(Do your mum and dad want you to speak posh?)

*No, they're not posh at all. Just because it's got a bit of British in it. My parents came from England in the 70's.*

(At school, did people make you feel a bit isolated because of that?)

*It wasn't that severe. Just a couple of comments now and then. And you sort of think, don't say that. That's not very nice.*

(But you would have been little then?)

Yes.

(So this is calling back something that happened when you were little.)

*Yes, that's true.*

(It must have made quite an impact.)

*I think so. Um, I guess you don't like to feel like an outsider. And when you're seeing terms like this and you still don't understand them and you recall memories like that, it does make you feel on the outer.*

(Isn't that funny. That emotion's been with you for a long time.)

*It's come out today!*

(I think they stay with us for a long time and we just forget about them until something reminds us.)

*Hidden anger.* (NMA,G,RT,89-110)

### ***Interest and Self***

According to the *self-determination theory*, interest can be conceptualised as 'the core affect of the self' (Renninger, Hidi & Krapp 1992, p.45). That is, interest emanates from and describes what Deci and Ryan (1991) refer to as the *integrated self* which is revealed by way of that which 'expands the self by incorporating new information and having new experiences with the person or object that has stimulated the interest' (Izard 1977, p.216). In other words, it is interest that motivates the desire for new information and experience and through reflexive consciousness the individual becomes aware of both their interest in the object and that object as being the object of their interest.

If, as new information about the object is learned, the individual becomes increasingly interested, an enduring disposition would be expected to develop that explains, demonstrates and predicts an underlying intrinsic motivation (Prenzel, Krapp & Schiefele 1986). It is this reflexive knowledge as to the

nature of self and what is known to be of interest that reaffirms or alters the self-concept (Boud & Walker 1991; Ivanova 2003).

### ***Interest and Motivation***

Identifying the distinction between interest and motivation appears to be appropriate given continuing theoretical discussion and confusion. Such is evidenced in the comment by Csikszentmihalyi and Hermanson (2004, p.148) that self-motivation effects a combination of curiosity and interest, while Izard (1977) contends that interest-excitement is the very foundation of intrinsic motivation.

By way of resolving the confusion, Deci and Ryan (2000, p.233) contend that intrinsic motivation represents a self-rewarding process based on interest as well as enjoyment, flow, vitality and need satisfaction. Hence they suggest that the two, while connected, may vary by virtue of differing activation variables. While interest emerges from novelty and complexity, intrinsic motivation relies for its initiation and maintenance on the satisfaction of autonomy and competence.

Furthermore, rather than intrinsic motivation being the precursor to interest as might be intuitively expected, it has been shown that it is interest in a topic that not only precedes, directs and enhances the intrinsic (and, indeed, extrinsic) motivation to learn and explore (Fredrickson 1998) but also predicts behavioural exploration and engagement (Silvia 2006). In short, interest directs and motivation empowers.

Moreover, with respect to learning, it is the emotional characteristic of intentioning (directing) that further discriminates the two. That is, while interest, being an emotion, is intentioned to a museum exhibit that thereby becomes the object of its intentioning, motivation as a non-intentioned state is able to stimulate learning but lacks the direction by which the learning of a specific object occurs.

### ***Interest and Neuroscience***

Recent advances in neuro-psychiatry have supported the involvement of interest in the release of dopamine into the brain, allowing for more openness to information, curiosity, attention and memory consolidation (Isen & Shmidt 2007; Kandel 2006). However, as discussed in chapter four, it is not actually doing the activity and gaining the reward that causes the release of dopamine. Rather it is the expectation of the reward (Mirenowicz & Schultz 1994). If the subsequent experience proves to be more enjoyable than expected then the dopamine release will continue together with the level of interest. If, however, the experience proves to be disappointing then both the dopamine release and levels of interest will subside.

In this way, it is dopamine that 'teaches' the brain to be interested in certain experiences by virtue of the previous experiences that were found to be rewarding (Beninger 1983). Thereby information regarding heightened degrees of experienced interest survives to be stored into memory (Boitano 1996; Haberlandt 1998; Kupfermann & Kandel 1995). However, it should be noted that such expectation of reward and its attendant levels of dopamine are not constant even when a repeated experience has proved to be enjoyable. Rather, the dopamine (and with it, interest) reduces as the experience is repeated (Berns 2010).

### ***Phenomenology of Interest***

From a Heideggerian perspective, it can be argued that interest is central to museum learning. As discussed in chapter seven it is interest that unconceals the interestingness of an exhibit on behalf of the visitor and unconceals the interestedness of the visitor on behalf of the exhibit. In other words, reflexive consciousness of one's interest in the artefact, and the artefact as the object of such interest, results in meaning and, in turn, learning. In this way, interest and unconcealment can be viewed as fundamentally interconnected such that the greater the interest, the greater the unconcealment, the greater the meaning, the greater the learning.

## The Essence of the Museum Learning Experience

### *The General Essence*

According to the appraisal theory of emotion discussed in chapter four, it is now suggested that the emergent narrative is the cognition by which interest is appraised and thereby elicited. Moreover, according to the concept of phenomenological intentioning discussed in chapter seven, it is suggested that interest is that which intentions the emergent narrative which is initiated by virtue of such intentioning. In short, it is the interestedness of the visitor in an exhibit and the interestingness of the exhibit to the visitor that together influence the nature and extent of both the interest and the emergent narrative.

It is therefore proposed that such a phenomenological relationship described in chapter seven can be expressed according to 'imaginative intuition' (Grbich 2007, p.84) in terms of the connection between interest and the emergent narrative. More specifically, it is posited that *the interactive process that links the emotion of interest with the cognition of the emergent narrative is the general essence of the museum learning experience*. Diagrammatically the relationship can be represented as follows:

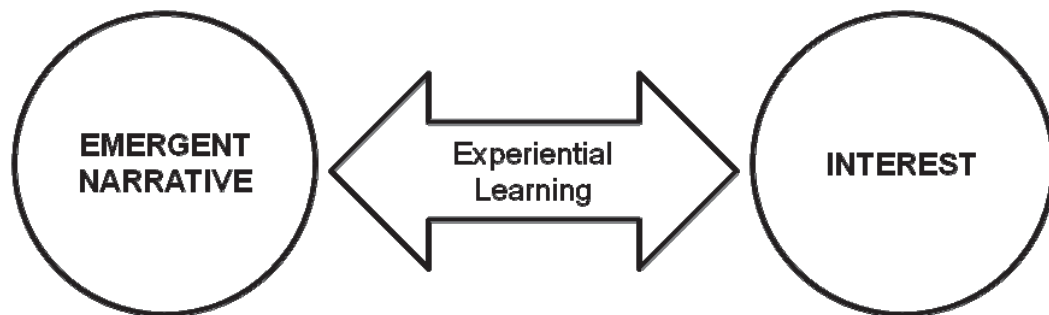


Figure 9-1 The General Essence of the Museum Learning Experience

In this relationship neither component is cardinal. In the interactive process the two operate symbiotically such that without interest, perceived and acknowledged by the individual, there is no emotional intentioning of the emergent narrative and without the emergent narrative, also perceived and acknowledged, there is no cognition to which interest can be intentioned. In the

absence of such an on-going process it is suggested that the experience as the experience would no longer exist.

In a holistic sense the relationship might be defined by the term *Perceptual Convergence*. By way of description, it can be said that the cognitive and emotive elements of the dualism are coupled to form the general essence of the phenomenon that is perceived and acknowledged by the self of the individual visitor. In terms of the unfolding of the visitation experience, such an interrelationship can be said to operate continuously as the visitor progressively reflects on each exhibit and moves from exhibit to exhibit during the course of the experience.

In addition, as indicated earlier in this chapter, it is suggested that such interaction takes the form of experiential learning that allows interest to intention the emergent narrative and interest in return to be appraised. In other words, it is the experience of interest that reinforces the development of the emergent narrative and it is the experience of the emergent narrative that reinforces the elicitation of interest that in turn is the basis for further development of the emergent narrative.

### ***The Essential Structure***

Given the discussion to date, it can now be suggested that the essential structure of the museum learning experience is constituted by interest, the emergent narrative, experiential learning and the self which together operate according to the following diagrammatically representation. A temporal dimension has been added to indicate that the model, reflecting both experience and learning, is not static but rather that the constituent parts are all constantly changing by virtue of the on-going inter-relational processes of the experience.

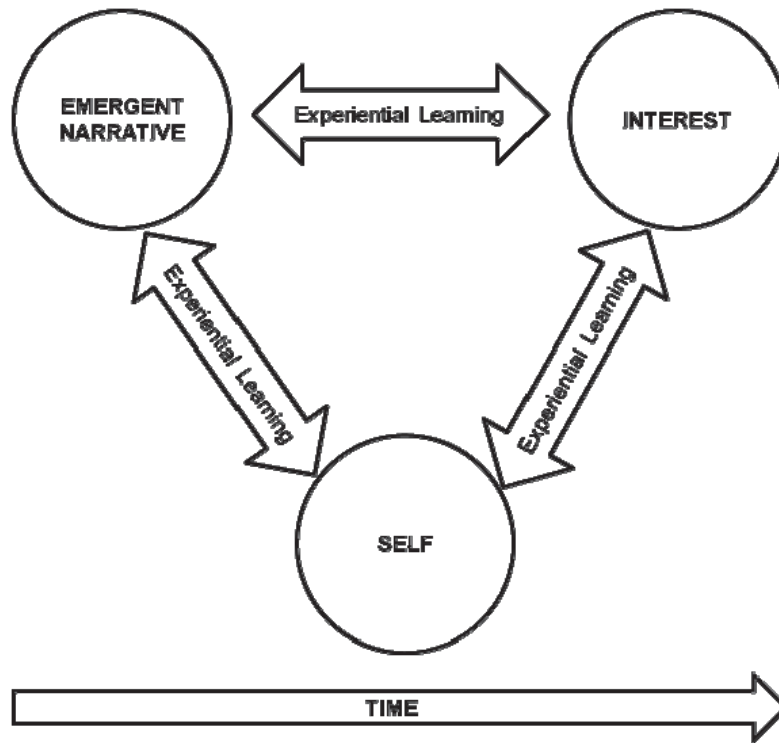


Figure 9-2 The Essential Structure of the Museum Learning Experience

In a Heideggerian sense, the ontological description of museum learning above suggests that the truth of the experience is not singularly any of the constituent elements. Rather it is the *structure itself* that holistically defines the inter-relationship. It is this structure that binds the general essence, which is the relationship between interest and the emergent narrative, to the self. As stated by Dewey (1913) such intentioning can be viewed as a self-expressive activity by which the self finds itself in its content. In other words, by way of such interrelationships the self becomes aware not only of its own interest but also the emergent narrative as the object of such interest.

Regarding this inter-relational process five things should be noted. The first is that it represents a fundamental departure from the commonly held view that meaning occurs between an object and the visitor or between the museum's interpretation of an object and the visitor. Rather, the position as posited suggests that what might be termed the 'negotiation' of such meaning operates between the emergent narrative, which is the individual's interpretation of the object, and the emotion of interest, the result of which is assimilated into the



mental schemata of the autobiographical narrative of the self. Second, such interpretation is constantly being re-interpreted as the Being (in the ontological sense) of the exhibit is progressively revealed to the visitor. It is this interpretive and re-interpretive process that encourages the visitor to linger long enough and invest sufficient mental resources for learning to occur. The third consideration is that the unconcealment (in the Heideggerian sense) of both the individual and the exhibit occurs only by virtue of the ability and willingness of both entities to engage. Without such engagement there can be no mutual unconcealment, no revealed meaning and hence no learning. Fourth, the form of experiential learning envisaged here is not that proposed by traditional theorists but rather a combination of rational causality and intuitive creativity (left and right brain) discussed in chapter three. Finally, it is suggested that learning continues as long as the individual elects to remain within the structure and ceases when they discontinue the process.

In short, to understand the phenomenon in its totality, one must consider it in terms of an inseparable relationship between the processes of 'interest-making', 'narrative-making' and 'self-making'. One cannot survive without the others. It is this understanding to which might well apply Buytendijk's term the 'phenomenological nod...a good phenomenological description (of) something we can nod to, recognizing it as an experience that we have had or could have had' (van Manen 1990/1997, p.27).

## **Deconstructing the Emergent Narrative**

### ***Introduction***

With the identification of the above-mentioned interrelationships the learning phenomenon might be said to have been made evident. However, this is not to say that each of the constituent elements within the model have themselves been determined to the point of their indivisible essences. Denzin (1984) contends that having disclosed the essence, its essential properties and structures must then be discovered, interrogated and described. Such meanings are thereafter fitted into what Heidegger (1935/1977) refers to as an *interpreted totality* which fully describes its fullness in terms of its structures

and interrelationships. As a consequence, the investigation moves to a deeper hermeneutic of the experience.

### **Overview**

While the nature of interest, as an emotion, could be considered to have an essential indivisibility within the concept of cores and spheres propounded by Denzin (1984) and described in chapter seven, the same cannot be said about the emergent narrative. In this regard a total explanation of the learning experience can therefore only be achieved through further consideration of its essential nature.

With respect to the intentioning of physical objects related to a knowledge situation, Husserl (1913/1982) distinguishes between what he terms *signitive acts* (thoughts) and *intuitive acts* which incorporate *perceptual acts* and *imaginative acts* (Mohanty 1964, p.46).

In as much as perceptual acts are a matter for the physiological senses (James 1890/1950), thought and imagination remain as the two primary determinants of cognitive meaning. Such a determination is important to this study as it extends the conceptualization of learning from merely thinking and remembering, which have been covered in some detail in chapter three, to the process of imagining. As such, the emergent narrative might be viewed as a trifurcation of the cognitive components of remembering, thinking and imagining.

### **Remembering**

Chapter three provided a detailed psychological and neurological examination of the attendant cognitive processes of remembering. While some remembering involves only short-term retention it was seen that information that makes a strong impact, either by way of emotional connections or meaningful cognitive links which the individual constructs, generally survives re-processing from the short-term memory of the hippocampus to the other various parts of the brain for long-term storage.

## **Thinking**

Assuming a somewhat procedural stance, Dewey (1916, p.144) defines thinking as 'the intentional endeavour to discover specific connections between something which we do and the consequences which result, so that the two become continuous.' Malim (1994, p.137) provides a more contemporary and psychological interpretation when he describes it as 'the process involved in manipulating information, either collected through the senses or stored in memory from previous experience so as to be able to respond to the immediate situation'. As such, he views thinking as a conscious process whereby individuals use the perceived essential characteristics of an object to categorise it according to other experienced items with similar characteristics.

Even more prosaically, Gardenfors (2006) lists the processes of thinking to include reasoning, planning, critiquing, analysing, conjecturing, sorting, comparing, and calculating. To these he adds the uniquely human characteristic of self-consciousness - that is, the ability to 'reflect on their being conscious...to consciously focus on their inner processes' (p.14).

The inherent relationship between thinking and memory allows a consideration of its nature within the theories of learning previously discussed. In this regard reference can be made to the behaviourist findings of Pavlov (1927), Piaget's (1952) concept of thinking processes, Dewey's (1938/1975) experiential theories and Damasio's (1994) somatic marking of schemata as theoretical frameworks by which to consider the involvement of thinking in memory formation.

According to the empirical data, thinking appears to emerge in four forms. The first refers to 'sense-making' whereby new information is encoded into existing mental schemata of knowledge, experience, values, beliefs and attitudes:

*It's definitely interesting, with Irish immigration as well. There was a shortage of women in Australian colonies. But it makes sense. Like, when you think a lot of the convicts would have been male, so they brought out a whole lot of orphaned women and women from Ireland during the turnip famine. They brought them out here for work. (NMA,6,RT,183-189)*

The second could be referred to as 'reflecting' which Moon (2004, p.82) defines in a 'common sense view' to be:

a form of mental processing - like a form of thinking - that we may use to fulfil a purpose or achieve some anticipated outcome....applied to relatively complicated, ill-structured ideas for which there is not an obvious solution and is largely based on further processing of knowledge and understanding that we already possess.

From the data, reflecting was seen as a process that occurs together with an unfolding of the experience. In this regard it can be viewed as being simultaneous with the development of the emergent narrative rather than subsequent to it:

*One thing that I really thought about from walking through the whole thing (AWM), was just these random sort of displays of memorabilia and stuff like that. It really doesn't do anything for me. When I see a doll or a helmet or, you know, a picture of someone's loved one, unless they're placed in context, it doesn't really have an effect....Where they kind of have, like, a story of someone and they have their personal effects and they give detail, their journey or whatever, I find that really interesting...you can imagine...I don't really feel emotional when I look at that (exhibit). But when I can picture a scene I find that a lot better. (AWM,B,RT,17-43)*

The third form of thinking evidenced in the data was what might be termed 'intellectualizing', what Krell (2008, p.366) defines as 'calculating, reckoning, figuring, planning, and problem solving'. Here cognitive processing takes the form of philosophizing or theorizing:

*I'm not sure of the actual population at the time, but when you consider 60,000 Australian lives in 1924-18 would have been quite a big percentage and I think they said that nearly every small town knew somebody or had somebody there who was killed or never came home or was injured. And just the amount of small towns and big cities that have put up war memorials of some description, whether it was a piece of equipment that was used with a commemoration or that sort of thing. It's just amazing how the war did affect everybody across Australia. (AWM,8,RT,174-180)*

The fourth form of thinking is 'ontological'. In this sense it assumes a Heideggerian perspective which can be considered as the consciousness of Dasein 'being-in-the-world'. Heidegger (1964) posits the *call* as that which compels individuals to think about what is most thought-provoking. In this context the word should be interpreted by way of the Greek word *keleuein* which has a connotation of helpfulness, such that the call connotes an

invitation rather than a command. As such, it might be argued that the thought-provokingness, or interestingness, of an exhibit invites the individual to think about the object. Where the individual is not found wanting, the response is one of thinking with a possible outcome of interestedness. The engagement of individual and object can thereby be viewed in terms of the interestingness-interestedness inter-relationship referred to in chapter seven.

### ***Imagining***

In terms of the data, imagining appears to take two forms. The first might be termed 'visualizing':

*The flame-thrower kits I found a little disturbing to say the least because I have seen crude versions in 'Saving Private Ryan'. They have flame-throwers and I just think that it's almost an inhumane weapon. The concept of someone burning alive I think was just a bit unsettling in the stomach. (AWM,8,RT,136-140)*

The second might be considered to be 'transcending':

*Some of the pictures make me quite terrified. They don't even see the bullets coming. And it's dark. It's dark even in the day-time because it's just so dense forest. And you're running; you're on the run. It's not like you're a fugitive, you've done something wrong and you're on the run. It's like you've got to run or you're going to die. And you've got to go through this absolute hellhole to escape, to get home which once you get there you're probably going to be attacked as well. So these guys are just in an absolute horrible, horrible situation. (AWM,8,RT,305-311)*

While the literature related to remembering and thinking has been addressed in some detail in chapter three, such is not the case with respect to imagining. The remainder of this chapter seeks to provide a summary description of imagination in order that the cognitive composition of the emergent narrative might become more apparent.

### ***Introduction to Imagination***

While the concept of imagination can be seen in the Greek *phantasia*, it is the Latin *imago*, meaning *copy*, that the current derivation is sourced. From this copy of the real, the 'not-real' or 'unreal' of imagination emerges. The importance of imagination and its relationship to thinking was commented upon

by Aristotle (1986) who considered that thought always involves that which is not present to the senses but is present to the imagination.

A similar sentiment was expressed much later by Modell (2003, p.109) who stated that 'thinking is not possible without imagination.' In the case of empathy (commonly evidenced in the empirical findings of this study) he contends that '*meaning is constructed through imaginatively entering into the minds of others*' (p.118) (italics in text). Moreover, he suggests that 'One's sense of self is impacted and altered in the process of assimilating the feelings of the other. Affective knowledge of the other alters the self, and accordingly the self accommodates itself to what is perceived' (p.120).

In an attempt at classifying the nature of imagination Kant (1781/1958) differentiates two forms, namely *reproductive imagination*, being that which reflects the qualities of reality that are known but currently not apprehended, and *productive imagination* that places imagination in the role of mediator to 'bridge the gaps in cognition and experience' (Gibbons 1994, p.2).

Heath (2008, p.117) also posits two forms of imagination, namely *inventive* imagination (echoing 'visualizing' suggested above), being the 'cognitive capacity to bring before the mind what is not present to it', and *radical* imagination (reflecting 'transcending') which he presents as the ability to create entirely new experiences that are not represented by previous experience, either as separate experiences or 'blends' of two or more experiences. Thereby, imagination in this form can be seen as the 'connection, rearrangement, and fusion of perceptions' (McKellar, 1957 p.11) either consciously or unconsciously. Importantly, it is this latter process that allows for what might be termed 'imaginative learning' that provides the consciousness with an altered perspective or 'way of knowing'.

### ***Imagination and Narrative***

Previously in this chapter it was argued that cognitive processing allows two or more narratives to be 'blended' in the mind of the individual to form a third narrative which has both coherence and meaning. Turner (2003) contends that such blending occurs not just through the involvement of existing knowledge

and prior experience but also at the behest of imagination. He suggests that a blended narrative emerges by virtue of three processes: *composition* from different conceptual sources, *completion* by filling in the partially completed patterns using knowledge, experience and/or imagination, and *elaborating* the blended story in order to extract further meaning.

In short, imagination provides the cognitive and emotive contexts that allow individuals to utilise their personal knowledge and experience to interpret narrative and use narrative to make meaning from experience (Gerrig & Egidi 2003).

### ***Imagination and Neuroscience***

In 1890 William James stated: 'The commonly received idea is that it (imagination) is only a milder degree of the same process which took place when the thing now imagined was sensibly perceived' (James, 1890/1950, p.68). Modern neurological research indicates this to be the case such that the same neural circuitry is used when an object is perceived or an action is undertaken as when the same object or action is imagined (Berns 2010; Jeannerod 1994). In this sense, imagination can be viewed as perception run in reverse.

However, Gardenfors (2006) notes that, while both forms of perception can be involved in cognitive thinking, to utilise the perceptual circuitry for imagining requires its simultaneous suppression for sensory representations in order to avoid conflict. That is, the individual cannot perceive information from sensations and imagine sensations at the same time. Importantly, Gardenfors (2006) also notes that what is imagined must first be perceived and remembered.

As a consequence, Berns (2010) makes the point that because the most likely way that the individual perceives something will be in a manner consistent with past experience, the greatest limitation on perception, and hence imagination, is experience. The reason is that the brain's continuous search for patterns forms categories from experience (refer chapter three) upon which both perception and imagination are structured and expectation is 'learned'

(Gardenfors, 2006). It is this drive to categorise that establishes in humans ‘the strong desire to find meaning in the world’ (ibid, p.45).

As a consequence, Berns (2010) contends that thinking imaginatively requires breaking out of the existing perceptual categories in order to consider new ways of perceiving. This, he suggests, can best be achieved by ‘bombard(ing) the brain with new experiences’ which enable the individual to consciously or unconsciously imagine alternative possibilities (Berns 2010, p.54).

### ***Phenomenology of Imagination***

As phenomenology has the methodological advantage of asking the meaning of experience, it follows that one might ask what it means to experience imagining.

By viewing imagining to be an act of creative intentioning, Husserl (1913/1982) considered imagination to be an *act of* consciousness rather than a *thing in* consciousness, a realization that allows it to both intuit and constitute essential meaning. In other words, phenomenology considers imagination not as a thing but as a *relation* whereby an act of consciousness is directed at an object beyond consciousness.

In this sense, the phenomenology of Husserl deems imagination to be that which has the ‘power capable of intending the unreal *as if* it were real, the absent *as if* it were present, the possible *as if* it were actual’ (Kearney 1991, p.17). It is this characteristic of imagination that Husserl (1913/1982) suggests distinguishes it from perception in that while the object of perception is intuited in its presence, the object of imagination is intuited in its absence; while perception is directed at the object that exists, imagination seeks to re-create the invisible intention that lies behind that which is visibly perceived.

It is by way of this philosophy and its attendant concept of imaginative variation, as outlined in chapter seven, that Husserl (1913/1982) defines the importance of imagination in viewing the alternative states of being of an object as a means of identifying its essential nature. It is only through imagining as if they were present that such variations might be considered in order to arrive at



those constituent elements without which a thing would no longer exist as that thing. In short, it is the intentional act of imagining that allows the transcendental possibilities of being. 'By defining imagination as the portal leading from the natural to the eidetic realm, Husserl bounds imagination and phenomenology together in a Gordian knot' (Kearney 1991, p.24).

In his conceptualization of being, Heidegger (1927) also makes comment on the importance of imagination, albeit that it was ultimately subsumed into the more generic term *Dasein* as discussed in chapter seven. Arguing from a primarily Kantian view, Heidegger (1929) contends that imagination develops in advance of the experience in the form of images which have at the same time *sensibility* (perception) and *intelligibility* (understanding). It is this spontaneity of perception and understanding that differentiates imagination from thinking and provides the essence of imagining.

Moreover, Heidegger's (1927/1962/1997) concept of being-in-the-world means that present actions are made meaningful by both a remembered past and a projected, or imagined, future. As such, imagination can be said to augment the power to be 'in-the-world' by creating a world that the individual can inhabit. Similarly, while not commenting specifically on imagination, it might be said that Heidegger's elaborate and experiential description of Van Gogh's painting of peasant shoes discussed in chapter seven alludes to an imaginative interpretation beyond that of his philosophical dictums.

While imagination is generally apprehended in the phenomenological literature with respect to cognitive processes, Sartre (1940) contemplates its emotive aspects. In particular he considers whether the feeling itself is imagined along with the imagined scene or the feeling is a genuine response to what is being imagined. With respect to learning he distinguishes between perceiving and imagining. Whereas the former is seen to represent a state that teaches the individual how things are, the latter is seen to be that which teaches one how they are not, and hence are deemed to be 'uninformative'. In this regard he views feelings regarding imagined objects as being 'played' by the imagination rather than 'felt' (Hopkins 2011).

By way of rebuttal it is argued that learning often involves imagining the outcomes to a planned action; scientific findings (refer above) have evidenced that perception and imagination are neurologically inseparable; real world observations indicate that emotions are caused as much from imaginings as from perceiving; that such emotions are just as real in terms of bodily changes; and that, according to Denzin (1984), feelings of empathy by the real, rather than imagined, adoption of the feelings of others. Consequently, it might reasonably be said that emotion, including interest, is equally generated during the states of remembering, thinking and imagining proposed in this study's learning model noted above.

### ***Imagination and Museums***

According to Fraser and Colson (2012) imagination is often the only way that museum visitors can make sense of objects and ideas from a time and place outside of their current existence. The resolution of that which is subsequently curious and intriguing encourages engagement in the space between an object and the imagination, a space where the writers contend storytelling becomes possible and powerful. In this space they suggest the narrative of the individual's own interpretation may emerge.

### ***Summary***

With the constituent elements of the emergent narrative now identified, it is suggested that constructivist narratological processes operates between all three. In this regard the conscious process of remembering can be seen to influence the processes of thinking and imagining, thinking effects remembering and imagining, and imagination defines the nature of thinking and remembering. It is by virtue of such on-going conscious processes that one can posit that the constructivist form of emergent narrative is progressively formed and re-formed, while continuously and experientially interacting with the emotion of interest and being assimilated into the constructivist narratological processes self as it does so.

The deconstruction of the emergent narrative now provides for a holistic structure of the museum learning experience which can be diagrammatically represented as follows:

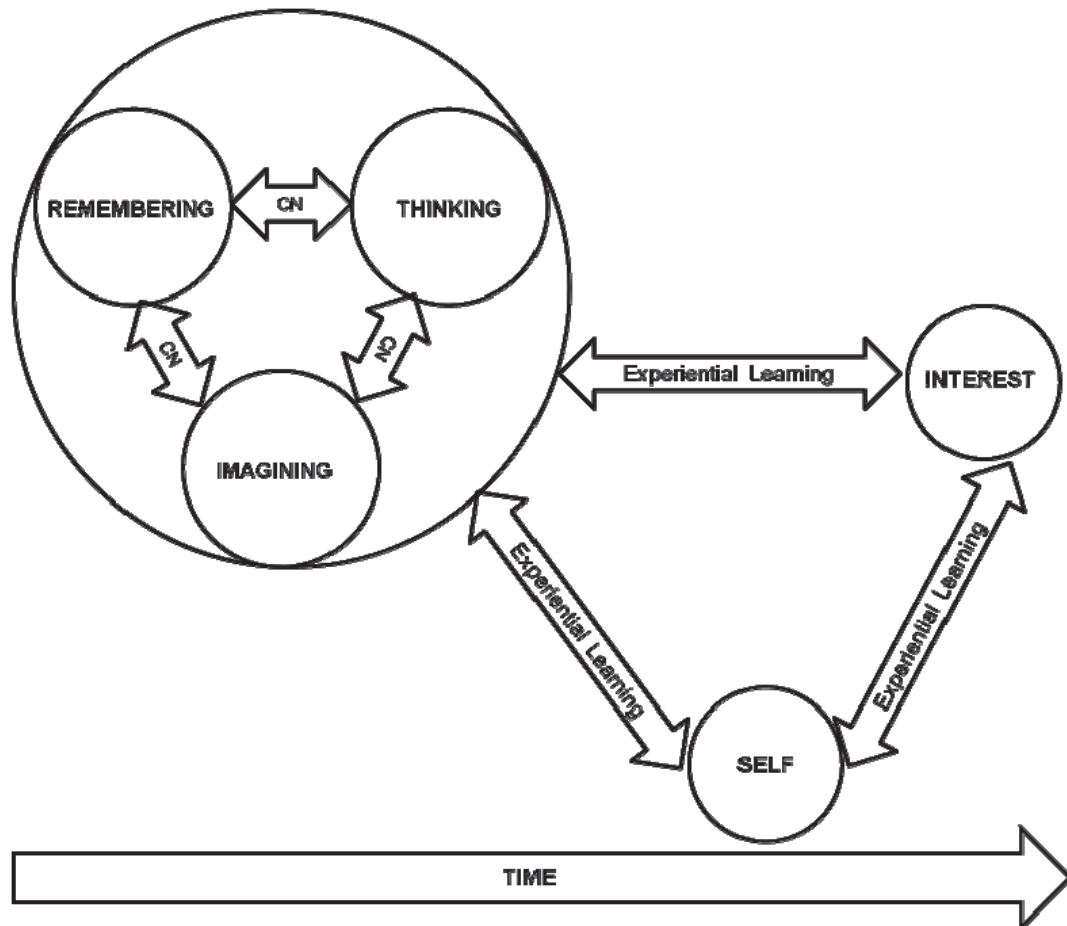


Figure 9-3 Deconstructed Structure of the Museum Learning Experience  
 CN: Constructivist Narratological processes

It can now be holistically suggested that the essential structure of the museum learning experience is defined as the consciously on-going interpretive relationships between an emergent narrative, constituted by the constructivist narratological processes of remembering, thinking and imagining, the emotion of interest and the autobiographical processes of the self. Such relationships are formed and re-formed over time through the process of experiential learning.

As such, it is suggested that the process of learning with respect to a particular exhibit continues as long as the on-going emergent narrative - interest - self interrelationship continues. Once that operation ceases, so does learning. Furthermore, it is intuited that the rate of such learning increases as the consciousness increases the rate of the remembering - thinking - imagining interrelationship.

It should be noted at this point, that within a phenomenological approach, which by definition considers only the conscious experience, such a model necessarily excludes the potential influence of the unconscious and with it a possible further explication of the total experience.

### **Looking Backward and Forward**

Interest was suggested to be the emotion that activates exploration, investigation, manipulation and extraction of information in order to enhance the self through the development of knowledge, experiences, competencies and skills. It was also considered to possess the attributes of a general essence of the phenomenon by virtue of the relationship between the interestingness of an exhibit and the interestedness of the visitor.

Furthermore, it was considered that it is interest which motivates the development of an emergent narrative created by the visitor as an exhibit is interpreted. It was posited that it is the inter-relational process between interest and the emergent narrative that constitutes the general essence of the museum learning experience.

It was also suggested that it is the process of thinking together with remembering and imagining that have the potential to alter the mental constructs, or 'ways of knowing', of the self. Interest is also seen to be the emotion that motivates such relationship between the self and the emergent narrative.

It was further suggested that the process of experiential learning (as defined in chapter three of this study) facilitates the on-going relationship between the emergent narrative, interest and the self. Moreover, based on the narrative

literature, it was suggested that constructivist narratological processes operate between remembering, thinking and imagining as well as with respect to the autobiographical constructs of the self. Based on theoretical review, textual analysis and imaginative intuition, this holistic framework is proposed as constituting the essential and indivisible structure of the phenomenon which is the museum learning experience.

The following chapter seeks to capitalise on this understanding to draw the thesis to a close by determining to what extent the research questions posed in chapter one have been adequately addressed and how the outcomes of the study might inform the literature as well as the practice and marketing of history museums.

## CHAPTER 10 : REAPPRAISING THE MUSEUM LEARNING EXPERIENCE

### Introduction

This chapter returns to the research questions posed in chapter one and examines how they have been answered.

The questions reflect the phenomenological approach adopted in the second stage of the Main Study. They encompass one central question and four sub-questions that directed the progress of the research and ultimately brought it to its theoretical and existential conclusions. While in large part the answers to these questions appear throughout the text, a summary response to each is now provided.

Thereafter the chapter discusses how the study findings might resonate with existing academic discourses, considers boundaries around the study, and suggests possible areas for further research.

### ***Central Research Question***

The central question as posed was:

***WHAT IS THE ESSENCE OF THE LEARNING EXPERIENCE IN HISTORY MUSEUMS?***

The answer emerges from two perspectives being the general essence and the particular essences.

### ***General Essence***

The general essence of the learning phenomenon can be defined as *the essential unfolding of the experiential relationship between the emergent narrative and interest in order to achieve meaning*. For the purposes of this study it has been given the term *Perceptual Convergence* that considers such a phenomenon as the experiencing of a cognitive-emotive dualism that is perceived by the self of the individual visitor. The emergent narrative represents the outcome of the cognitive processes by which the individual

interprets the exhibit. Interest represents the emotion motivating such interpretation.

### *Particular Essences*

Having determined the general essence, the particular essences provide a more holistic view of the experience in its ontological sense. Whether one takes a Husserlian (1913/1982) view that they cerebrally 're-construct' the experience or a Heideggerian (1927/1962/1997) perspective that sees them immersed in human existence, they represent the means by which the lived experience can be revealed. In this regard the museum learning experience is seen to have five characteristics which are all considered so cardinal that without any one of them the experience as the experience would no longer exist. These include:

- the *physicality* of concrete objects;
- *engagement* between exhibit and visitor;
- *emotionality* that encourages such engagement;
- *reflection* during the process of learning; and
- *meaningfulness* being both comprehension and significance.

Such essences accrue value not only because they explicate the learning phenomenon but because they collectively explain the nature of the experience.

### ***Sub-Questions***

The four questions that flowed from the central research question were as follows:

#### ***1. WHAT IS THE ESSENTIAL STRUCTURE OF THE MUSEUM LEARNING EXPERIENCE?***

It is proposed that the essential structure of the learning experience (as discussed and diagrammatically portrayed in the previous chapter) incorporates the emergent narrative, interest and the self linked together through experiential engagement. In Heideggerian terms the emergent narrative can be said to represent the 'framework of possibilities' by which the

Being of the exhibit is interpreted (unconcealed) to the transcendental self. In this regard interest is directed to that which is concealed and drives the process of unconcealment that becomes evident in the emergent narrative.

Further, the interaction between the emergent narrative, interest and the self is facilitated by experiential learning (as defined in this study as an integration of both deterministic and intuitive imperatives) of which the self is consciously aware. By virtue of such awareness the mental schemata of the autobiographical narrative are potentially altered as the exhibit is interpreted and such interpretation is, to a greater or lesser extent, accommodated or assimilated. The self thereafter directs the nature and extent of future experiences according to reinforced or altered 'ways of knowing' of both the self and the world. Moreover, the learning occurs over time such that the interrelationships have the ability to be interpreted and re-interpreted by the self, a form of learning dialectic, during the course of the visitation experience and thereafter.

In terms of the model proposed in this study, the self of the individual enters the structure and is motivated by the emotion of interest to cognitively interpret an exhibit. Such on-going constructivist-narratological interpretation results in an emerging narrative that is subject to continuous assessment regarding feelings of interest. As the narrative develops it is also subject to on-going assessment against the existing mental schemata of the self. With increasing degrees of interest and relevance to existing schemata the potential for assimilation into the self increases.

Such assimilation, to a greater or lesser extent, incorporates both the interpretation of the exhibit together with the attendant interest into the autobiographical narrative. Where existing schemata are considered inappropriate or inadequate there is the potential for new interpretations to induce a process of accommodation such that the schemata are changed as a result. (For ease of reference, both processes are hereunder jointly referred to as assimilation.)



Upon completion, the self exits the learning cycle as it relates to one particular exhibit and re-enters the cycle as it relates to the next exhibit. In this way cognitive and emotive learning from one experience can be seen to influence, to a greater or lesser extent, the learning of subsequent exhibits as well as, through remembering, those preceding. Thereby it can be viewed as a process of increasingly informing the individual of both exhibits and themselves as they move forward in time, diagrammatically indicated as follows:

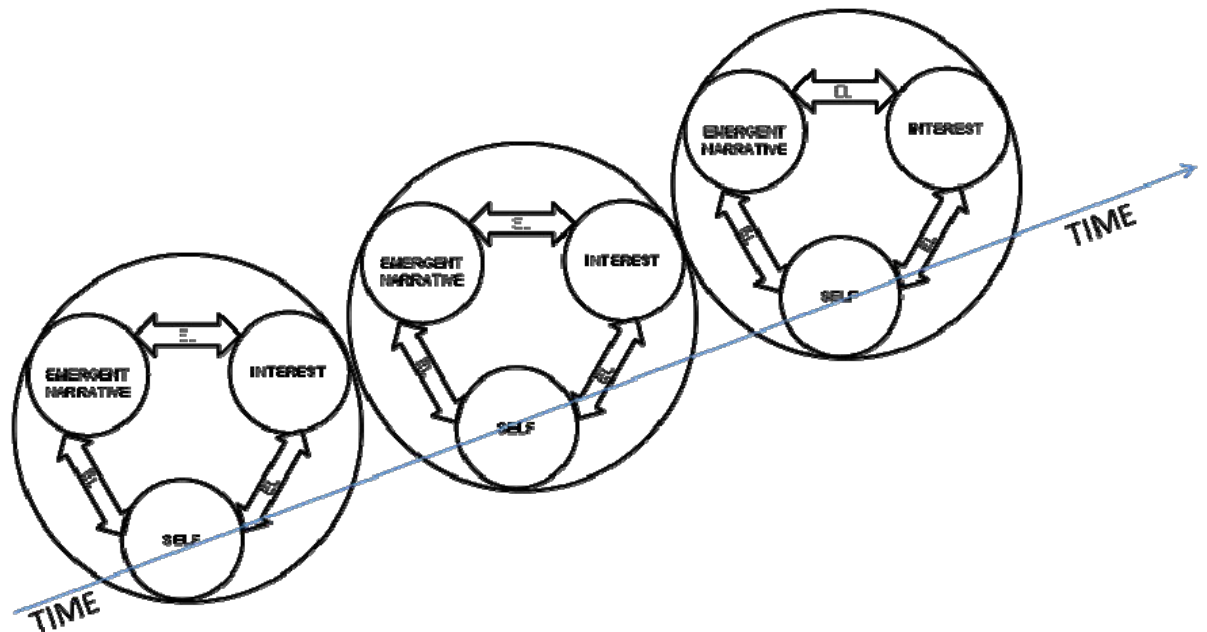


Figure 10-1 The Progressive Development of the Self over Time  
EL: Experiential Learning

While the above-mentioned description might infer a formative process occurring solely within and at the behest of the individual, such is not suggested. Rather, as indicated in the findings of each stage of the empirical research, the object/individual interaction invariably operates in concert with attendant others be they friends, family, tour groups, museum staff or even strangers - the so-called 'communities of learners' that in part constitute the sociocultural context of Falk and Dierking's (2000) Contextual Model of Learning discussed in chapter three. In such circumstances it was often found in this study that the discussion regarding exhibits that occurred between individuals involved what might be termed a 'trading' or 'negotiation' of information, description, opinion and feeling. As such, the resultant outcome

could be viewed as a 'negotiated position' whereby both parties in the participant pairs generally arrived at a mutually satisfactory outcome.

In terms of the model as posited in this study, it could be said that the results of the on-going interactive processes between the emergent narrative, interest and self that operate internally become apparent externally through such social discussion. Furthermore, such external interaction can be viewed as bidirectional such that information flows both into and out of negotiation from the individual's mental processes until a final position between the parties is reached. In this sense the negotiation can be viewed as operating through the dialogue between the parties which enters and plays through the internal interactive paradigm of each individual as indicated in the following diagram:

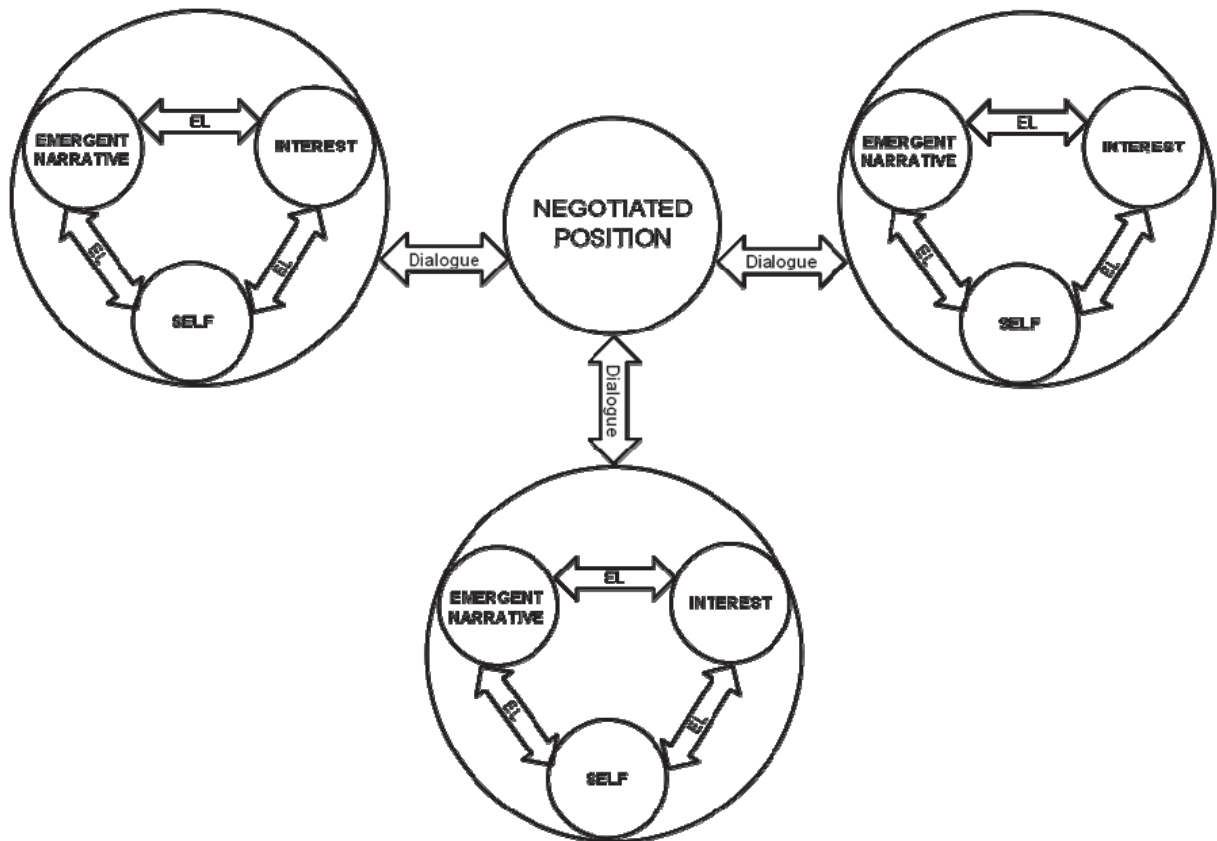


Figure 10-2 Negotiation Between Interrelating Individuals  
EL: Experiential Learning

Acknowledging that such social negotiation occurs at the same time as the internal essential learning processes of each visitor interact with the physical exhibit suggests an expanded relationship as presented in the following

diagram. In as much as this model incorporates elements of the personal, social and physical contexts, it could be said to reflect, to a certain degree, the interactive models developed by Falk and Dierking (1992, 2000).

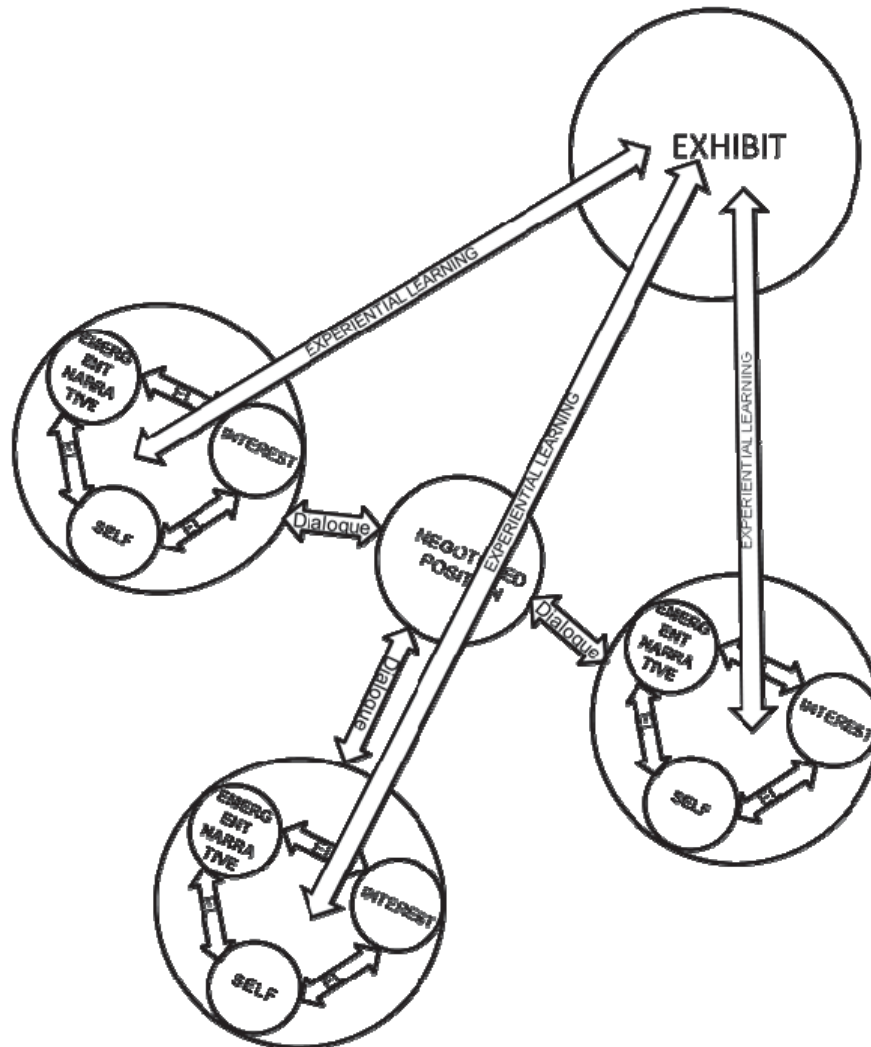


Figure 10-3 Relationships between Negotiating Individuals and Exhibits  
EL: Experiential Learning

With their acceptance, to a greater or lesser extent, of the external negotiation as mediated through the interaction with the exhibit and the internal evaluative processes, each individual could be said to have assimilated the resultant position into their schemata of the self.

## 2. WHAT ARE THE CONSTITUENT ELEMENTS OF THE ESSENTIAL STRUCTURE?

It was proposed in the previous chapter that the emergent narrative is constituted by three on-going cognitive processes being remembering, thinking and imagining. Such processes collectively provide one constituent of the general essence of the phenomenon, the other being the emotion of interest. Further, it was suggested that the interaction between these three elements is facilitated by on-going constructivist narratological processes of which the self is consciously aware. The interrelationship may be diagrammatically represented as follows:

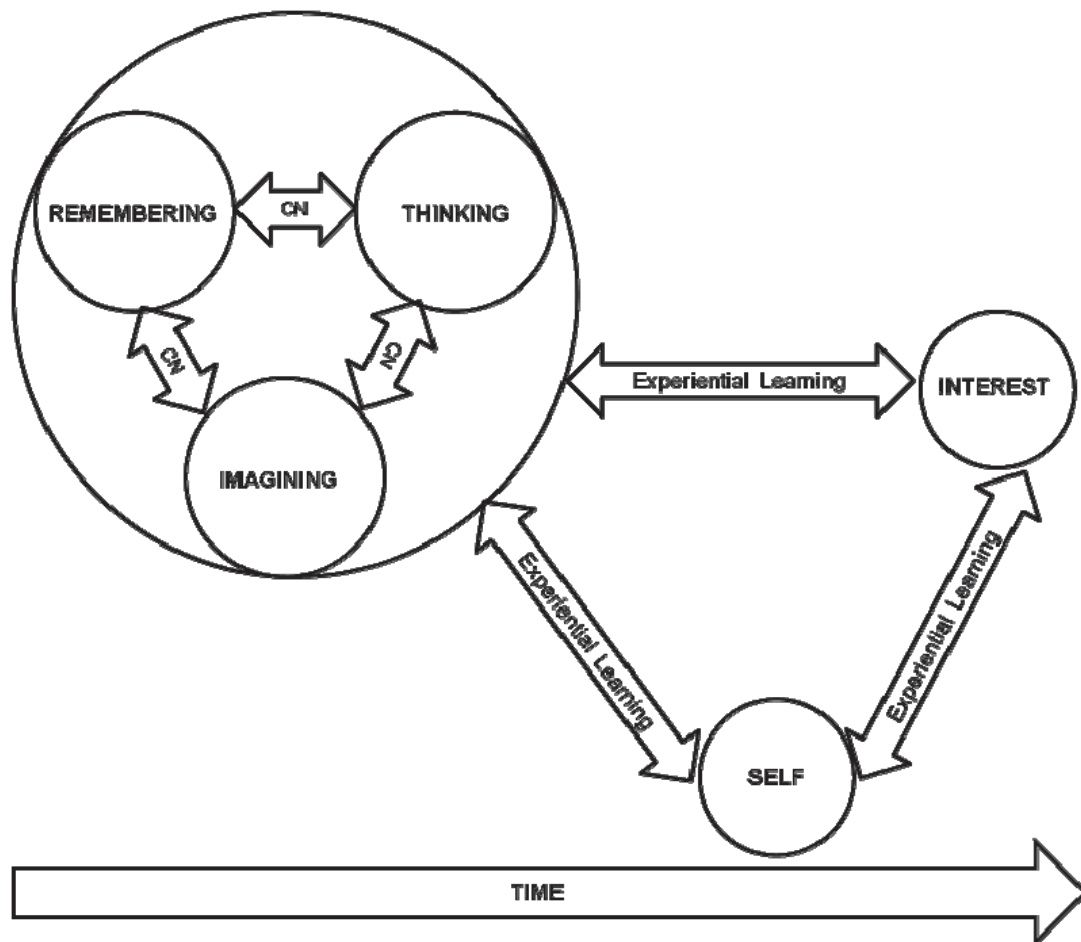


Figure 10-4 The Deconstruction of the Emergent Narrative  
CN: Constructivist Narratological processes

### *3. HOW IS MEANING CREATED BY THE VISITOR DURING THE MUSEUM LEARNING EXPERIENCE?*

While meaning in museum settings can refer to linguistic understandings as contemplated by Husserl in Mohanty (1964), in the context of this study it refers

to a constructivist narratological interpretive process. According to such a process narratives from new experiences continually interact with the cognitive and emotive schemata of existing autobiographical narratives to form new narratives of reality that have both coherence and understandability to the individual and as such may be assimilated into the self. Meaning can therefore be seen to be basis for the on-going interaction between the emergent narrative, interest and the autobiographical narrative of self.

According to van Manen (1990/1997) the six themes and sixteen categories identified in chapter eight can be seen to provide the 'structures of meaning' underpinning the experience. In this study they might therefore be viewed as the means by which visitors use meaning to assess their interest in the interpretation of the emergent narrative and the appropriateness of its assimilation into the self.

An acknowledgement of such begs the question as to how such meaning is made 'meaningful'. That is, in what way do visitors give import to that which they determine to have meaning? In terms of the data gathered and discussed in previous chapters, the answer appears to reside in the nature and degree of the associated emotions. That is, it is the emotion associated with the theme that accrues its meaningfulness rather than the inherent nature of the theme itself. Such a finding reflects the writings of Modell (2003, p.151) when he contends that 'Feelings assign value to what is meaningful' such that there is an 'essential relationship between feelings, meaning and self.'

For example, in terms of this study's empirical findings, the category of Recognition, constituting the theme of Connection, attains meaningfulness by way of the emotions felt when recognition is experienced rather than simply the cognitive experience itself. With respect to the discussion of the relationship between emotion and cognition in chapter four and the phenomenological construct of Denzin (1984), such a suggestion should not be surprising. Rather, the realization of this nexus once again indicates the importance of emotion to meaningful learning.

From a Heideggerian perspective meaning was seen to be created when the Being of an exhibit is revealed at the behest of the interested visitor. In this regard, it was suggested in chapter seven that the interested viewer 'calls up' the experience of the exhibit and in so doing opens their own consciousness to receive the information in the full or unwitting knowledge that they may be changed by virtue of the information so provided.

In ontological terms such might be termed a 'gap of possibilities' whereby the exhibit is revealed to have possible meanings by which it can be interpreted and by virtue of such revelation the visitor perceives anew their own possibilities. In such a space the interestingness of the exhibit meets the interestedness of the visitor. It is here that there exists a reflexive consciousness of one's interest in the possibilities of the artefact plus a consciousness of interest in one's own possibilities by virtue of the artefact. In this way interest can be seen to be that which enables engagement, elicits meaning and encourages learning.

Acknowledging both the capacity for themes to provide meaning as well as the making of meaning by way of interest suggests a relationship between themes and interest, such that by virtue of the themes the experience is imbued with interest. Likewise, given the primacy of interest in the process of learning discussed in the previous chapter, it might be suggested that it is the emotion of interest that provides import to the themes. Upon this reasoning interest both emerges from and reinforces the meaningfulness of the themes.

Moreover, by way of the general essence linkage between interest and the emergent narrative it might be suggested that the themes influence the nature and extent of the emergent narrative. In short, it is suggested that the themes provide meaning to the interaction between interest and the emergent narrative and thereby to the self. As such, the themes can be incorporated into the essential structure of museum learning and diagrammatically represented as follows:

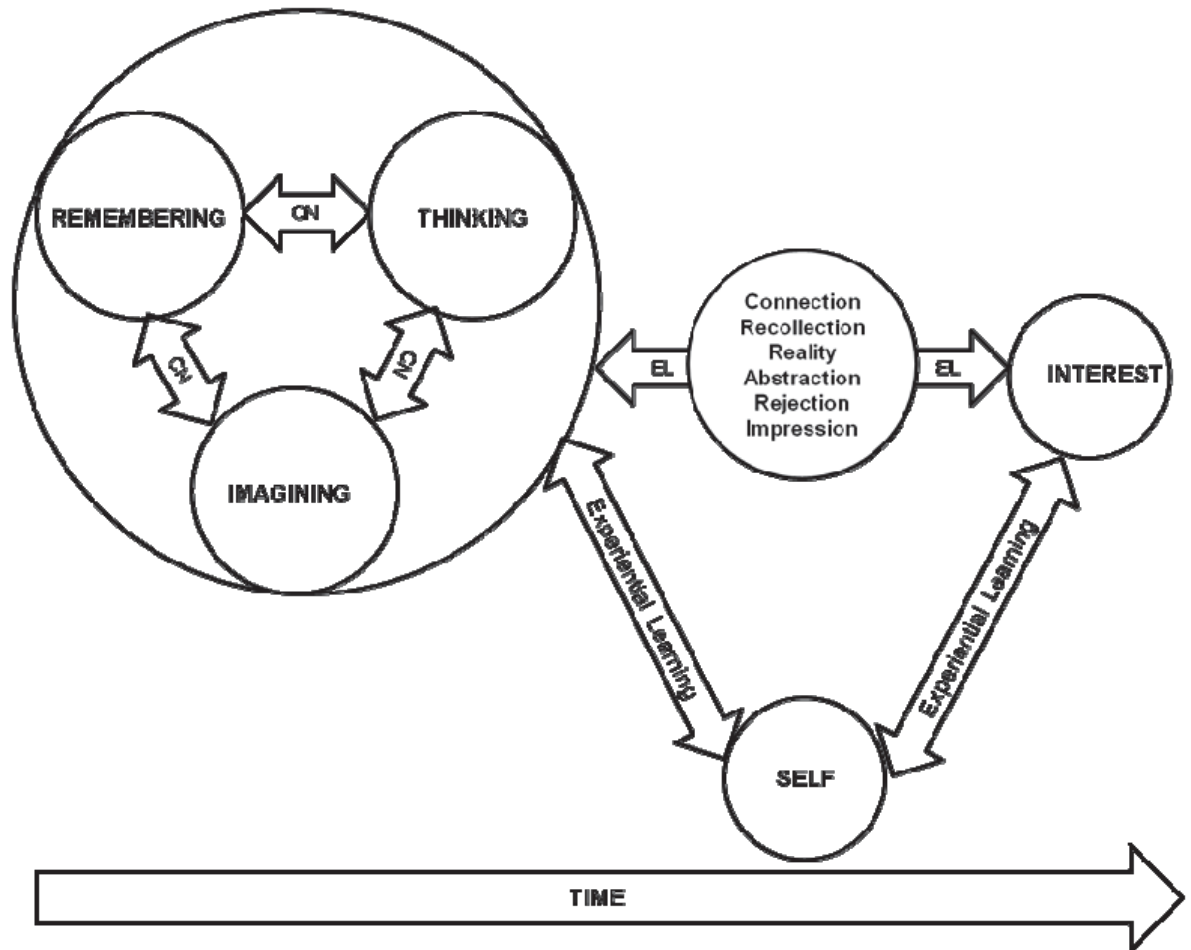


Figure 10-5 The Structuring of Meaning

CN: Constructivist Narratological processes      EL: Experiential Learning

With respect to this model it can therefore be said that *meaning making in the museum context is defined as a constructivist-narratological process that facilitates the interrelationship between the emotion of interest and the interactive cognitions of the emergent narrative. Such a process is constituted by the themes that can be identified by way of phenomenological analysis.* In this study the themes of connection, recollection, reality, abstraction, rejection and impression were identified as appropriate to two quite dissimilar museums. As such it might be suggested that other history museums may have use for such themes as the means of inducing enhanced visitor cognitive and emotive learning processes.

In short, the model suggests a constructivist-narratological form of interpretation operating through the creative and expansionist processes

inherent in the emergent narrative coupled with interest-bearing emotion operating through the reductionist and revelatory structures of meaning inherent in the themes. In this sense learning in constructivist environments, such as museums, can be viewed as the assimilation into the self of the on-going dialectic between the processes of constructivist interpretation and deconstructivist meaning-making.

To the elucidation of this dialectic can now be added the processes inherent in the constituent elements of self and interest discussed in chapters four and nine respectively. In particular, Piaget and Inhelder (1969) suggest that through the processes of accommodation and assimilation the mental constructs of new information either revises or reinforces, respectively, the existing schemata of the self. In this way new constructs resulting from the interpretation and reinterpretation of the emergent narrative as well as the altered states of situational and/or individual interest induce, to a greater or lesser extent, a modified autobiographical narrative of the self.

With respect to the constituent elements of interest, reference can be made to Silvia (2006) as well as Krapp, Hidi and Renninger (1992) (discussed in chapter nine) who posit a distinction between the interest which is induced by way of environment factors and that which is inherent in the continuing preferences of the individual. While acknowledging the distinction, this study, echoing Hidi (1990), suggests that both states do not operate in isolation but rather continually interact through the interestingness of the emergent narrative and the interestedness of the individual.

Importantly in terms of the phenomenological approach of this study, such modifications to both interest and self, whether they be subtle or substantial, are represented to the consciousness of the individual such that it is aware of on-going changes to both by way of their inherent reinforcement or transformative processes.

Incorporating such descriptions of the self and interest, together with the meanings of the previous diagram, allow for a holistic representation of the essential museum learning structure as follows:



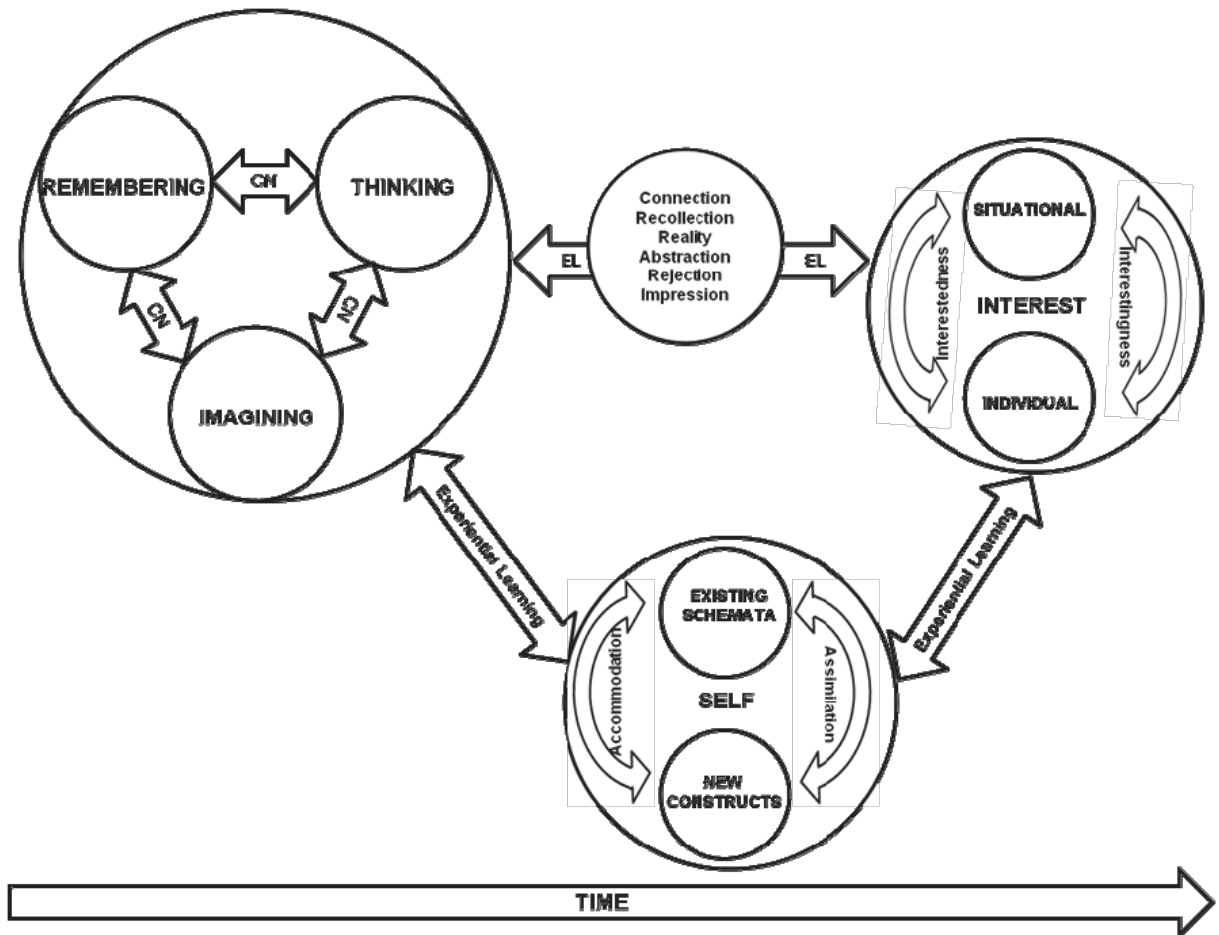


Figure 10-6 A Holistic Representation of the Essential Museum Learning Structure  
 CN: Constructivist Narratological processes      EL: Experiential Learning

By way of describing and summarizing this comprehensive model which brings together the above-mentioned discussions, it is suggested that *individual history museum learning can be viewed as the modification of mental schemata resulting from the emotion of interest motivating an on-going dialectic between the constructivist narratological processes of interpretation and the reductionist distillation processes of meaning.*

#### 4. WHAT ARE THE KEY IMPLICATIONS FOR THE MANAGEMENT AND MARKETING OF MUSEUMS?

Based on the findings of the study the following recommendations for the management and marketing of history museums were assembled.

### *New Ways of Knowing*

The phenomenological perspective discussed in this study suggests that the challenge for museum curators and designers is one of facilitating a process of unconcealing the ontological truth of exhibits at the same time as encouraging the 'opening up' of the visitor to the potential for personal change through new 'ways of knowing'. Meeting this challenge requires attention to both the interestingness of exhibits and the interestedness of visitors.

It is suggested that such unconcealment can be achieved through layered interpretation in a way that makes meaning progressively apparent and understood through continued engagement. In this regard exhibits need to encourage visitors to remain sufficiently long for reflection to proceed with respect to both the attended exhibit and those that have preceded it as well as the need for later exhibits to cater to the enhanced degree of learning that has resulted therefrom.

Regarding the means of encouragement it is suggested that the answer lies in stimulating the three constituent elements of the emergent narrative. To this end the literature and the empirical data of the study suggest that every opportunity should be taken to sensitise awareness and curiosity, to challenge and question, to offer different perspectives, and to imbue the experience with content-laden stimuli which trigger a multitude of associations. In terms of practical means by which such objectives might be met, consideration might be given to the interpretive opportunities available through technological advances including mobile phones, GPS tracking, and web-based downloads.

Importantly, the findings of the study also suggest that museums need to stimulate visitors' imaginations. As noted by Kavanagh (2003) and Morris (2012) the desire of visitors to use their imaginations is all too often ignored by museums. There appears to be two significant benefits in encouraging such imaginative participation. The first is the degree of proprietorship that the visitor thereby acquires in the experience and the extent of the learning that emanates therefrom. The second is that imagination is able to 'fill the gaps' in sensory and recalled experience and thereby overcome any lapses required to engage interest and make sense of exhibits, the so-called 'imaginative learning'

suggested previously in the study. As a consequence, museums should provide the sort of information that can act as multiple cues to which visitors can relate and which help form the personal images necessary for imaginative processing. According to Berns (2010, p.54) noted in the previous chapter this can most effectively be achieved by 'bombard(ing) the brain with new experiences' that create surprise and break down existing perceptual categories, enabling the individual to consciously or unconsciously imagine alternative possibilities.

Further, narratives written by museums should encourage 'rewriting' by the imaginations of visitors in order to create their own narratives of interpretation regarding the objects they are observing. In this regard the use of advanced interactive devices with user-friendly touch-screen interfaces can assist in both stimulating imaginative involvement and engaging analytical thinking as necessary cognitive processes in the formation of the emergent narrative.

### *Using Narrative*

While narrative is recognised as the principal means of visitor interpretation it should also be acknowledged as an appropriate structure for the negotiation of meaning between the institution and the visitor. To do so, however, suggests that museums need to acknowledge that the construction of narrative is fundamentally different from the simple communication of information. While museums traditionally utilise logical and scientific interpretations that emphasise consistency and verifiability, narrative seeks to establish not truth but truthfulness, not knowledge but meaning. While the first is done through argument and proof, the second is achieved through metaphor and connection (Bruner, 1996).

In order to successfully utilise the advantages of narrative, museums need to not only be acquainted with its particular structures but also take advantage of the techniques used and refined in other fields of information communication including advertising, cinema, journalism, theatre, novels, biographies, theological texts, myths, art, music, video games, in fact anywhere narrative is told. In this regard it is not difficult to conceive of specific interest narratives (for

example, 'Life for a World War One Soldier') available for downloading onto personal mobile phones when entering the museum.

Furthermore, in the self-directed learning environment of museums, where interest must be retained for learning to occur, it is important to attend to the ease and comprehension of communication thereby avoiding that which is considered by the visitor to be dull, confusing or requiring undue effort to maintain attention. In this regard it is suggested that consideration be given to the neurological findings contained in this study as well as the themes of meaning by which new data can be aligned with the mental schemata of previously constructed meanings.

Finally, reference needs to be made to the discussion in chapter nine regarding the necessary replacement of existing narratives with other narratives, rather than new facts. Combining this with the neurological findings regarding the importance of imagination to cognition and its determination through personal experience (refer chapter nine) suggests that the replacement of existing narrative-based schemata (that is, learning) can most efficiently occur through the introduction of new narratives created through imaginative experience. Gardenfors (2006) suggests that such experience can be provided by *play* which in humans involves the suppression of reality by imagination to create new patterns of behaviour.

### *Negotiating Meaning*

As suggested in chapter one, museums have historically been defined by their objects and the knowledge attached to them. However, with the emergence of more constructivist interpretations the meaning and value of such objects is increasingly being derived from externally developed narratives, particularly those of the visitors themselves. Generally, museums attempt to create, or induce visitors to create, narratives reflecting the interpretations that the institution itself desires. However, the interpretive process in such a constructivist environment should be one of negotiation rather than instruction. As such, exhibits need to be considered as the genesis of new ways of

knowing created by visitors themselves rather than the subject of mere information transference.

Moreover, rather than museums considering their exhibits as having qualities that are innate and associated with objective knowledge that requires no contextual reference, the model proposed in this study suggests the opposite - namely, that objects derive their meaning and importance from the narratives that are constructed contextually by visitors according to their subjective interpretation. Principally, this involves contextualizing the unknown in terms of the known, or the complex and unfamiliar in terms of the relatively simple and familiar. As such, objects achieve import not as ends in themselves but rather as 'vehicles for the expression of ideas...(and) vehicles of experience...(such that) museums are no longer object-based institutions...(but) forums for the negotiation and renegotiation of meaning' Roberts (1997, p.147).

Acknowledging learning to be at the behest of the individual as they construct their interrelationships between narrative, interest and the self, also allows museums to assume a visitor perspective that moves them beyond an object-centric philosophy imbued with didactic traditions and authoritative assumptions.

By challenging existing beliefs and posing open-ended questions, museums need to be aware and accepting of the fact that visitors may well, through their own emergent narratives, ignore, misinterpret or re-interpret the messages provided to them by curators. This is not a position from which they should recoil. If culture is constantly being renegotiated and recreated then, as both stewards of culture and centres of learning, museums are in a prime position to assume such interpretive functions as visitors seek to make meaning in a form that resonates with them.

Furthermore, by facilitating such visitor interpretations, museums should not only actively include visitors in the interpretive process but also demonstrate a high degree of transparency regarding their own interpretations. That is, they need to willingly inform visitors as to the assumptions upon which their decisions are made, concede that their knowledge is incomplete, and

acknowledge that the resulting interpretations are not absolute but merely constructions of possibilities. It is only by doing so that museums will provide visitors with the knowledge to critically analyse the interpretations made by curatorial staff, license visitors to develop alternative interpretations that have relevance and meaning to them, and draw them into the fascinating world of continuing scholarly research. As is already demonstrated with multiple endings to feature films, current technology provides viewers with the degree of personal control that they now expect with respect to other leisure providers.

### *Importance of Emotion*

While curators may be unable to control the construction of the emergent narratives of visitors, they are much more able to provoke emotionally-charged reactions. During the course of this study emotionality was recognised as fundamental to the museum learning experience not only by way of the centrality of interest but also as evidenced in the thematic analyses and the identification of essences. As such, rather than being circumspect of emotions, museums should embrace them as fundamental determinants of the learning experience.

As the principal learning emotion, the cultivation of interest should be of major concern. The distinction between situational and individual interest should also be acknowledged as the means of their elicitation will vary. While attention should be given to pre-existing interests that can be catered to and built upon, due consideration should also be given to that interest which is more spontaneous and circumstantial in origin.

Additionally, the entertainment experience, as commented upon by Tan (2008), is evidenced as emotionally rewarding and intrinsically motivating. He also notes that the essence of entertainment is interest and imagination. By virtue of the fact that learning and entertainment both incorporate these essential characteristics, it might reasonably be proposed that they are not only closely associated epistemologically and ontologically but also, in terms of a constructivist-narratological perspective, inseparable.

In the same way, the inherent nature of entertainment, with its states of leisure, playfulness, enjoyment, and creativity evoke in the individual the very states that encourage learning. For these reasons, rather than viewing entertainment in terms of the risk of subverting the authoritative position of museum interpretation, it is suggested that museums embrace it as a necessary means of engaging visitor interest and encouraging learning. In this regard museums can justifiably make use of the narratological and technological experience of other entertainment industries.

### *Process not Ends*

The incorporation of experiential learning in the model proposed in this study encourages learning to be viewed as processes rather than as a series of outcomes. This is not to say that the activities of museums will not lead to such outcomes as visitors process their emergent narratives, assess changes in interest, and assimilate modifications in mental schemata into the self. However, rather than pursuing such outcomes, it is suggested that museums need to create the circumstances in which experiences occur that, at the election of the visitor, engender learning through new ways of knowing. In this sense, it is the visitor who is doing the interpretation (with the benefits of perceived ownership and memory retention discussed previously) rather than that which proceeds by way of the didactic form of transmission model traditionally favoured.

As a consequence, museum professionals need to avoid 'teaching-based' educational goals that almost invariably result in a single, multi-faceted concept delivered linearly and factually so that the visitor might clearly understand the main idea being transmitted. Rather, visitors should be invited to explore, create, figure out, observe, imagine, infer, remember, think about, feel, share and construct as they see fit, whether or not the conclusions they reach are 'correct' in the sense of school-based learning. Such are the processes that create emotion-based meaning from which learning, in the widest sense-making interpretation suggested by Falk and Dierking (2002), might flow.

### *Research Approaches*

In this study the phenomenological approach, particularly that of Husserl (1913/1982) and Heidegger (1927/1962/1997), was seen to be of significant value in understanding the nature of the museum learning experience. Phenomenology might therefore be suggested as an appropriate research tool in times of major reviews where museums are interested in further understanding the nature of the museum experience as a whole or with respect to particular exhibitions.

Similarly, consideration should be given to learning frameworks that argue for more subtle, holistic and qualitative attitudinal changes rather than the larger, quantifiable changes that appear to be more frequently researched. In this regard, Personal Meaning Mapping offers a very viable means of determining such attitudinal subtlety while also allowing researchers to determine how existing mental structures are modified according to varying types of communication and learning experiences.

It is also suggested that museum research needs to acknowledge findings in other academic fields such as neuroscience, cognitive behaviour, and emotion theory as well as the trends and experience of other relevant areas of communication and narrative studies that can be of benefit in determining how museums can better talk to and engage their constituencies.

### *Identity-related Motivations*

Falk (2009) and Falk and Dierking (2013) propose that identity-related motivations represent a principal component of visitors' pre-visit agendas that provide a basic trajectory for the visit as well as the lens through which the experience is framed and measured for satisfaction and enjoyment. As a consequence they suggest that museum professionals need to understand the importance of such agendas and recognise that they can be influenced by the institution in order to create a successful experience.

In terms of this study, such motivations could be viewed as subsumed into the self which forms part of the essential architecture of the learning experience.



As such, they can be said to provide the stimuli for any particular visit that reflect, in part or in whole, the reflexive expectations and attitudinal dispositions of the individual. As the model suggests, such expectations might be viewed as 'self-imaginings' in that the pre-visit individual imagines themselves behaving in a certain manner that is aligned to their dispositions. Just as Falk and Dierking (2013) contend that the pre-visit agenda can be influenced by the museum, this study suggests that such pre-visit imaginings can be similarly affected particularly when supported by perceived emotional rewards.

### **Considering Existing Academic Discourses**

Having arrived at a suggested structure of the museum learning experience, it now appears appropriate to consider how such determinations might resonate with existing academic discourses.

#### *Contextual Model of Learning*

The two models developed by Falk and Dierking (1992, 2000, 2013) provide valuable insight into the interactive nature of museum learning by way of three influential contexts, the personal, sociocultural and physical. These are diagrammatically represented by the researchers as three intersecting circles with the area of overlap representing the zone of interaction. Based on empirical data the researchers were able to demonstrate the elemental nature of each context and thereby indicate the multifaceted character of the holistic experience.

In terms of this study, the theoretical and empirical findings might be conceptually described as moving into and through the zone of interaction to explore the essential nature of the phenomenon as it is experienced by the visitor. As such, it moves the understanding of the experience from what might be considered to be a 'macro' analysis, where the various forces operating within the phenomenon are organised and circumscribed, to a 'micro' level of essential elements and processes that are fundamentally indivisible.

In so doing it, metaphorically speaking, presents the 'core' of the museum learning experience from which the 'big bang' of Falk and Dierking's (2000) three contexts emerge.

In this sense, and to the extent that this study discloses a more fundamental level of understanding than that apparent in existing discourses, it can be said to significantly supplement such extant literature.

### *The Object - Visitor Relationship*

By examining the potentially divergent interpretations of curators and visitors, Hooper-Greenhill (2004) comments on the relationship between museum objects and visitors. This study further explicates that relationship by utilising, in contrast to other academic discourses, the philosophical approaches of Husserl and Heidegger. In terms of the latter, the truth of the experience was seen to be made manifest through the unconcealing of the Being of both the object and the visitor, a process which was inherently motivated by the interestingness of the object and the interestedness of the individual. Interest was thereby posited as being ahead of, and the necessary pre-condition for, such unconcealment.

In addition, the revealing of the object-visitor relationship was seen to result in the development of a subjective form of interpretation, the so-called emergent narrative, by which the individual makes sense of the object and with which the interpretation by the museum may, in some cases, be at odds. It was argued that it is this cognitive-based narrative which, together with the emotion of interest and the inter-relational process of experiential learning, represent, in Husserlian terms, the general essence of the phenomenon and, together with the self forms the essential structure of the learning experience.

Thereby, the phenomenological approach utilised in this study arrives at the indivisible cognitive-emotive dualism being the essence of the experience that hitherto had not been evidenced in the literature. Moreover, having determined that relationship, the study further posits a third element, the self, which completes the triumvirate of ruling constituents that comprise the fundamental architecture of the phenomenon.

By way of this structure, it appears that the findings of this study substantially supplement those of other researchers including Hooper-Greenhill (2004).

### *Interactive Structure of the Emergent Narrative*

The nature of experiential learning has been written about at length by the likes of Dewey (1938/1975), Kolb (1984) and Boud, Cohen and Walker (1993), amongst others. Of particular importance to this study is their determination that learning incorporates into the current experience previous relevant experiences in a way that induces a quest for further information and modifies the learner to a greater or lesser extent. Importantly, such learning requires the participation of reflection in order that the learner might interpret the meaning of the experience into the mental schemata of existing meanings.

In terms of this study, such experiential learning was posited to be the facilitating process by which the emergent narrative symbiotically relates to interest and to the self.

In the same way it is argued that the reflection accompanying such a learning occurs not as a dispassionate process following concrete experience as is commonly referred to in the experiential learning literature but rather as cognitive processing, represented by the three constituents of the emergent narrative, plus the emotion of interest in an impassioned and embodied selfhood. In other words, reflection is a necessary and integral part of the learning process that was seen to occur *at the moment of cognitive/emotive interaction* rather than subsequent to the experience as traditionally discussed.

Further, it is proposed that meaningful learning occurs not just in the sense of the concrete and rational as conceived in traditional experiential learning models but also by way of the imaginative, intuitive, and gestalt. In this way it was suggested that experiential learning in the museum context is able to be represented by the hermeneutic of parts and wholes contributed by complementary neurological functions.

The conceptual identification of experiential learning, with its attendant body of theory and empirical research, is thought to be not only highly relevant to the

museum learning experience but also new to the museum learning literature. Additionally, the conceptual and empirical expansion of this mode of learning into non-concrete functioning as well as a redefinition of the process of reflection, significantly reconceives and extends the model of experiential learning as it is usually portrayed in the literature.

### *Meaningful Learning*

Kupfermann and Kandel (1995), Boitano (1996), Haberlandt (1998) as well as Celsi and Olson (1988) amongst others, suggest that it is the meaning of information that provides its perceived importance and it is the emotional response to such importance that dictates whether the information survives for memory storage.

In terms of the findings of this study, two particular determinations related to meaning are proposed.

First it is suggested that meaning is conditional not only upon the outcome of the on-going interactive processes between remembering, thinking and imagining but also the continuing inter-relational processes between the emergent narrative, interest and the self. Thereby, it is posited that both the emergent narrative and the self are constituted in the form of narratives such that the interactions that occur between the elements of the emergent narrative as well as between the emergent narrative and the autobiographical self might be viewed as an 'exchange of narratives'. In this way *meaning can be seen not as an outcome but rather as a process*; an on-going constructivist-narratological interpretive process that cognitively makes sense, is motivationally supported by the emotion of interest and is able to be assimilated, to a greater or lesser extent, into the mental schemata of the individual selfhood.

Second it is posited that while the themes provide the structures of meaning, as discussed by van Manen (1990/1997), it is the emotion of interest that imbues them with importance. In other words, it is by virtue of interest that the themes are able to influence both the emergent narrative of exhibit interpretation and also the selfhood. As such, meaning can be said to be created and reinforced

by way of the interactivity between themes, interest, the emergent narrative and the self.

By virtue of the proposition that meaning is a constructivist-narratological process rather than a finite body of information as assumed by the writers noted above, it gains a fluidity that would otherwise not be available to the on-going learning experience. Additionally, by positing that it is the emotion of interest that motivates the continual structuring of the themes and, further, it is the themes that provide meaning, the importance of interest to the evolving processes becomes evident.

Moreover, the development of the emergent narrative as a constructivist-narratological construction operating between the indivisible processes of remembering, thinking and imagining, and the themes as the structures of meaning, allows one to posit the nature of learning in the museum context (and possibly beyond). As such, it is proposed as constituted by the modification of mental schemata resulting from the emotion of interest motivating an on-going dialectic between the expansionist constructivist-narratological processes of interpretation and the reductionist distillation processes of meaning.

Such a proposal takes the conceptual understanding outside the normal parameters of learning as posited in the museum literature and, indeed, beyond the form that meaningful learning is often portrayed in the education literature.

#### *Motivation versus Interest*

According to Pekarik, Doering and Karns (1999) as well as Doering and Pekarik (2000), motivation is considered to be that which drives the self-selection process that determines which museum exhibits are examined based on personal interests, desires, expectations, experiences and attitudes.

In terms of the findings of this study, such examination is privileged not to motivation but rather to interest which is seen to be the emotive state which facilitates both visitor engagement and progressive learning. Motivation, on the other hand, is seen to be a cognitive state that in and of itself is unable to

induce such learning but rather requires an emotion in order to continually direct its energizing properties to the learning task. Similarly it is suggested that it is not the desires, expectations and attitudes noted above that themselves engender the motivational force of interest but rather the on-going interrelationship between the self, in which such characteristics are represented, interest and the emergent narrative which together engage and provide continuity to the examination of museum exhibits.

The proposition of interest as an emotion being the principal motivating factor in both visitor selection of exhibits and effort expended on their attentive interpretation, rather than the cognitive process of motivation, not only appears to contradict the writers noted above but importantly determines the primacy of emotion in meaningful museum learning, a consideration often overlooked by researchers and practitioners alike.

#### *Involvement of Self*

Rounds (2004) and Kelly (2007), amongst others, view self as having a transitory nature reflecting its ever-changing relationship with the world as a whole and a number of determinants within the museum context in particular.

In this study, self is considered to be that which is subjected to on-going reconstruction by virtue of its relationship with both the emotion of interest and the cognitive processes of remembering, thinking and imagining. Specifically in an Heideggerian sense, it is the self which projects interpretations as possibilities into the process of unconcealment of an object which is inherent in the concept of the emergent narrative.

In so doing, the mental schemata of the self continue to be used in the interpretive process as long as they are deemed, consciously or unconsciously, to be appropriate. When interpretations change by virtue of new information that meaningfully impacts on the emergent narrative, new attitudes, beliefs or values can be assimilated and the self recognises itself to have changed by virtue of such assimilation.

It is this paradigm that the study suggests supplements the discourses of the researchers noted above by defining the basis by which the self is modified. More particularly, it is both the possibilities that the self projects out and an openness to changed schemata by virtue of the interpretation received back, that enables and potentially induces such a change. In short, without such projection and openness such change cannot, and will not, occur.

While changes to self are commonly posited in the museum literature, the Heideggerian approach used in this study has facilitated a conceptual shift in understanding regarding the nature of such change.

### *Education versus Entertainment*

Anecdotal evidence suggests that the museum industry in part still remains sensitive to accusations of 'dumbing down' the visitor experience by introducing elements that are perceived to represent entertainment contrary to the education remit of most such institutions.

By way of a contrary argument, this study has reviewed the contributions of a number of researchers and writers including Falk and Dierking (2013), Kelly (2002) and Hooper-Greenhill (1995, 1996, 2004) who contend that it is an experience that both entertains and informs that is desired by most museum visitors.

According to the research undertaken by Tan (2008) interest and imagination represent the Husserlian essences of entertainment. As a consequence it can be suggested that learning and entertainment are fundamentally interconnected by virtue of their shared essences (interest and imagination) as well as distinguished by the processes of thinking and remembering. In other words, it is primarily thinking that differentiates the two states, or put simply, add thinking to entertainment and you get learning.

In this sense, the findings of the study appear to complement the views of the researchers noted above while supplementing them in terms of an identification of the fundamental processes by which entertainment might be perceived.

Further, the study suggests that the negativism associated by some museum theorists and practitioners with respect to entertainment could be deemed inappropriate by stripping the concept to its essentials. By doing so it becomes evident that entertainment, although arguably vacuous in and of itself, is potentially beneficial to learning once the process of thinking has been incorporated. This realization not only should emasculate such negativism but induce museums to accept the benefits of the sort of entertaining learning experience envisaged by Falk and Dierking (2013).

### *Experiencing Emotions*

Dierking (1994) contends that museum learning is strongly influenced by emotions while Hooper-Greenhill (2004, p.21) argues that 'Learning includes facts, but also experiences and emotions.'

It is suggested that both these findings are reflected in the findings of this study. In as much as interest is seen to be the essential learning emotion around which Denzin (1984) contends other cognitions and emotions revolve, this study echoes Dierking's (1994) assessment that the museum learning experience is largely an emotional phenomenon.

However, while not specifically challenging the arguments of these writers, this study incorporates the emotion of interest as well as the cognitions of the emergent narrative in its general essence. Therefore it can be said to be essentially both an emotive *and* a cognitive experience, with neither being cardinal. As such, the fundamental, and hence 'true' in a Husserlian (1913/1982) sense, nature of the phenomenon becomes apparent. By incorporating the cognitive-emotive dualism in the proposed model of learning, the debate between the relative importance of each element, and indeed whether emotion (or cognition for that matter) should be included at all, should hopefully be extinguished.

### *The Role of Imagination*

The importance of imagination with respect to emotion was illustrated by Denzin's (1984) use of the term 'emotional imagination' to refer to that which



allows individuals to empathetically feel what others feel. That is, imagination allows one to step outside existing patterns of thought and supplement current knowledge and experience with the mental schemata of newly blended connections.

When considering the nature of experiential learning as traditionally relating to the reality of past experience one might arguably also conceive of the 'virtual reality' of *imagined experience*. For if it relates only to past experience it will, by definition, operate only according to existing schemata. By introducing imagined experience to the concept of experiential learning such that it comprises both real and imagined experience, it is suggested that this limitation is obviated, thereby allowing for the construction of new ways of knowing and the attendant elicitation of new emotions.

In this regard it could be said that the study uses the empathetic concept of Denzin (1984) to supplement the experiential learning literature by considering a form of imagined experience. Sympathetic to the extended view of experiential learning into the intuitive and abstract noted above, this concept allows for museum learning based on imagination (hence creativity, fantasy, and even sensory encounter) traditionally considered beyond the norms of 'proper' museum learning.

#### *The Importance of Narrative*

According to Roberts (1997), Paris (2002) and Skolnick (2012) narrative is fundamental to the process of interpretation in the museum context, while Simmons (2006, p.45) suggests that narrative 'validates the specific circumstances people experience at the same time as inviting them to look from another point of view.'

In as much as narrative enables the processes of imagining, thinking and remembering to blend into the emergent narrative as well as the self to exist as an autobiographical entity it could be said that this study endorses the position stated by the researchers above. However, the notion of narrative is more complex than simple story-telling. Rather, it is suggested that it should be considered in terms of the meaning made through the sophisticated

narratological and constructivist interaction between the constituent elements of the essential learning structure proposed in this study. In this sense it can be considered more reflective of unconcealment of the Being of the exhibit inherent in Heidegger's concept of essential unfolding rather than the traditional didactic practises of chronological narration.

While the views of the researchers noted above indicate some representational form of interpretation involving the visitor, the findings of this study suggest that they still remain overly directive and at the behest of the museum. Rather, it is suggested that the narrative content, in fact as well as theory, remains with the individual. As a consequence, the meaning so assembled is singularly a result of the neurological perceiving, imaging and patterning processes that are accommodated into existing mental structures as suggested by Damasio (1994) and Edelman (1987).

Further, Falk (2007) uses the metaphor of filmmaking to suggest that the meaning of the present requires knowing something about the past and the future. In terms of this study the analogy is considered to be a good one. For viewers, the film represents a narrative that is continually being remembered, thought about and imagined as it progresses forward in time. In the same way, the model of this study suggests that the mind of the visitor continually flashes backwards and forwards in order to interpret and make meaning in the present, a process that retains interest, attention and learning.

### **Boundaries of the Study**

With its integration of learning, emotion and museum studies examined by way of a number of perspectives, this study has assumed a broad remit in order to arrive at a description of the essential structure of the museum learning experience. As a result of the literature review, theoretical analysis and empirical observations a comprehensive framework was arrived at consisting of remembering, thinking, imagining, interest, experiential learning, constructivist narratology and the self.

However, the study did not endeavour to explore them all in equal depth. More particularly, the nature of thinking and remembering was dealt with under the

heading of learning, representing the primary focus of the study. The exploration of narrative as a pedagogical and epistemological construct was limited to the immediate demands of the study as was the nature of imagination. Similarly, the examination of interest was deemed sufficient for the purposes of this study in order to have it understood beyond common parlance. Each of these topics is represented by a significant body of literature and academic consideration that necessitated a concentration on that which was considered particularly relevant to an identification of the essential structure of the learning phenomenon.

Moreover, while phenomenology proved to be a very appropriate methodological approach in such identification, it was acknowledged that, by definition, only the conscious experience was examined. In this regard consideration could in future be given to how the unconscious might be examined with respect to its potential influence on the museum learning experience.

Finally, while the study sought to fully explicate the essence of museum learning it does not describe that experience in totality. In that regard one has to consider the important work of other researchers whose significant contributions have helped provide an understanding of other facets of the museum experience.

### **Future Research**

In terms of research that could naturally follow the findings presented in this study, arguably the most obvious and potentially important would be a determination of the optimal balance between remembering, thinking and imagining in the development and maintenance of interest. In this regard there appears to be particular opportunities for researching the nature and influence of imagination in the construction of emergent narratives and the maintenance of visitor engagement.

Necessary limitations regarding the number of institutions examined suggest that further research could extend the phenomenological findings into other types of museums such as science centres. In this regard it could be beneficial

to determine whether the themes that provided the structures of meaning in this study are equally applicable in other settings.

Similarly, having suggested the mental processes that result in the narratives by which objects are interpreted, further research could seek to determine the form that such narratives take. In this regard attention could be given to the nature and extent of exhibit characteristics that are more likely to influence the emergent narrative and whether these are in any way common across exhibits.

Additional research also appears to be necessary with respect to how museums should structure their interpretive communication to help visitors construct their emergent narratives. In particular further research seems to be necessary to determine how recent advances in media, education and neuroscience can assist in creating interpretive messages that will induce visitors to consider new ways of knowing as a necessary precursor to learning.

Finally, consideration could be given to researching the influence of the unconscious in visitor learning as noted above.

### **Concluding Comments**

If this study is itself seen to have an essence it would probably be that of *time*, for it is time that appears to link everything together - the journey through time by which museum objects are brought to us, the time structure of narrative that tells those stories, the time context of the emergent narrative, with its remembering, thinking and imagining, and the dimension of time which causes the self to be autobiographically constructed. And of course there is the time that this study has taken to research and write in order to discuss all such matters.

The journey which is hereby completed has been an extensive, rewarding and at times exhaustive one. It was sustained by an abiding commitment to museums as valuable institutions for what may now be seen as their principal role - *creating experiences of the real to encourage new ways of knowing*. Such sentiments appear to be more than adequately stated by Glover Frykman

(2009) when quoting from *Minne och bilning*, SOU, 1994, vol. 51, p.30 which says:

A museum is a part of society's collective memory bank. The museum collects artefacts and evidence of people's culture and environment, documents them, conserves them and brings them to life. It develops and communicates knowledge and provides for experiences that make use of all the senses. It is open to the public and makes a contribution to social development. The museum's aim is to educate citizens of all ages.

## APPENDICES

## Appendix One - Example of Participant Authorization

UNIVERSITY OF TECHNOLOGY, SYDNEY  
CONSENT FORM

I, Angela Ferguson agree to participate in the research project "An exploration of the emotional experience and its relationship to learning among museum visitors" (include the UTS HREC approval reference number when obtained), being conducted by Richard McLachlan, UTS, Kuring-gai campus, Lindfield. Tel: 9514 5367, of the University of Technology, Sydney for his degree PhD.

I understand that my participation in this research will involve up to 4-hours of my time and involves me in talking about my thoughts and feelings before, during and after the visit. I am aware that these talks will be audio-recorded, and that while I am visiting the museum a mobile phone will be used to record my experiences.

I am aware that I can contact Richard McLachlan or his supervisor Associate Professor Bruce Hayler at phone number 9514 5454 if I have any concerns about the research. I understand that I am free to withdraw my participation from this research project with no prejudice whatsoever, at any time I wish and without giving a reason. I also acknowledge that my participation in this study will have no effect on my academic performance, records, or progress.

I agree that the research data gathered from this project may be published in a form that does not identify me in anyway.

Angela Ferguson 06/05/05  
Signed by

Angela Ferguson 06-05-05  
Witnessed by

Note:  
This study has been approved by the University of Technology, Sydney Human Research Ethics Committee. If you have any complaints or reservations about any aspect of your participation in this research which you cannot resolve with the researcher, you may contact the Ethics Committee through the Research Ethics Officer, Ms Louise Abrams (ph: 9514 9515, [Louise.Abrams@uts.edu.au](mailto:Louise.Abrams@uts.edu.au)), and quote the UTS HREC reference number. Any complaint you make will be treated in confidence and investigated fully and you will be informed of the outcome.

Appendix Two - Example of Personal Meaning Map





### Appendix Three - Plates

Plate One: Exterior Australian War Memorial



Plate Two - Exterior National Museum of Australia



Plate Three - View of Canberra



Plate Four - The Eternal Flame



Plate Five - Indigenous Australian exhibit



Plate Six - Objects of war





Plate Seven - Comradeship before battle



Plate Eight - The brutality of war



Plate Nine - The everyman of soldiering



Plate Ten - Those left at home



Plate Eleven - recalling the sacrifices of those who fought



Plate Twelve - The power of the Australian landscape



Plate Thirteen - The heritage of a young country

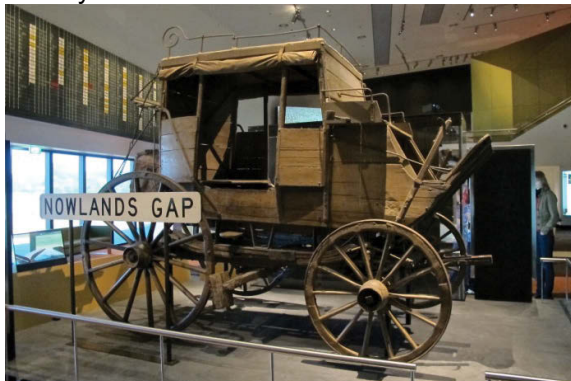


Plate Fourteen - Arrival of new Australians



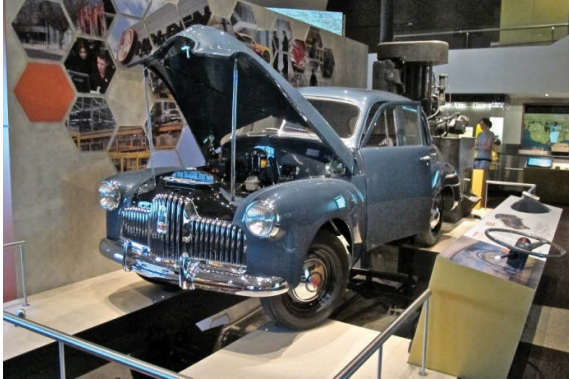
Plate Fifteen - A national identity



Plate Sixteen - The first Australian



Plate Seventeen - The Australian style of life



**BIBLIOGRAPHY**

- Abbott, H.P. 2008, *The Cambridge Introduction to Narrative*, Cambridge University Press, Cambridge.
- Ainley, M. 2006, 'Connecting with learning: Motivation, affect and cognition in interest processes', *Educational Psychology Review*, vol. 18, pp. 391-405.
- Ainley, M., Hidi, S. & Berndorff, D. 2002, 'Interest, learning, and the psychological processes that mediate their relationship', *Journal of Educational Psychology*, vol. 94, no. 3, pp. 545-561.
- Ajzen, I. & Driver, B.L. 1992, 'Application of the theory of planned behavior to leisure choice', *Journal of Leisure Research*, vol. 24, no. 3, pp. 207-224.
- Aggleton, J.P. (ed.) 1992, *The Amygdala: Neurobiological aspects of emotion, memory, and mental dysfunction*, Wiley-Liss, New York.
- Allen, S. 2002, 'Looking for Learning in Visitor Talk: A Methodological Exploration', in G. Leinhardt, K. Crowley & K. Knutson (eds.), *Learning Conversations in Museums*, Lawrence Erlbaum Associates, Mahwah, pp. 259-303
- Allen, G.L., Siegel, A.W. & Rosinski, R.R. 1978, 'The role of perceptual context in structuring spatial knowledge', *Journal of Experimental Psychology: Human Learning and Memory*, vol. 4, pp. 617-630.
- Amabile, R.M. 1983, *The Social Psychology of Creativity*, Springer-Verlag, New York.
- Anderson, D. 1995, 'Gradgrind driving Queen Mab's chariot: What museums have (and have not) learnt from adult education', in A. Chadwick and A. Stannett, *Museums and the Education of Adults*, National Institute of Adult Continuing Education, Leicester, pp.11-33.
- Anderson, J.R. 2000, *Learning and Memory: An integrated approach*, 2<sup>nd</sup> Edition, John Wiley & Sons, New York.
- Annis, S. 1974, 'The museum as a staging ground for symbolic action', *Museum*, vol.38, no.3, pp. 168-171.
- Appelbaum, R. 1996, 'On being an Exhibit Designer', *Exhibitionist*, vol. 13, p.15
- Aristotle, 1986, *De Anima (One the Soul)*, Penguin Books, London.
- Arnold, F. 1910, *Attention and Interest: A study in psychological education*, MacMillan, New York.
- Arnold, M.B. 1960, *Emotion and Personality*, Columbia University Press, New York, NY.



- Arnold, M.B. 1970, 'Brain function in emotions: A phenomenological analysis', in P. Black (ed.), *Physiological Correlates of Emotion*, Academic Press, New York, NY.
- Arnold, M.B. & Gasson, J.A. 1954, 'Feeling and emotions as dynamic factors in personality integration', in M.B. Arnold & J.A. Gasson (eds.), *The Human Person*, Ronald, New York, NY.
- Australian War Memorial website <http://www.awm.gov.au/> [accessed June, 2011]
- Ashby, F.G., Isen, A.M. & Turken, A.U. 1999, 'A neuro-psychological theory of positive affect and its influence on cognition', *Psychological Review*, vol.106, pp. 529-550.
- Bagozzi, R.P. 1991, 'The Role of Psychophysiology in Consumer Research', in T.S. Roberts & H.H. Kassarian (eds.), *Handbook of Consumer Behaviour*, Prentice Hall, Englewood Cliffs, NJ, pp. 124-161.
- Bagozzi, R.P., Gopinath, M. & Nyer, P.U. 1999, 'The role of emotions in marketing', *Journal of the Academy of Marketing Science*, vol. 27, no. 2, pp.184-206.
- Balling, J.D., Falk, J.H. & Aronson, R.A. 1980, 'Pre-trip Orientations: An Exploration of Their Effects on Learning from a Single Visit Field Trip to a Zoological Park', Final Report, *National Science Foundation*, Grant #SED77-18913.
- Bandura A. 1977, 'Self-Efficacy: Toward a unifying theory of behavioral change', *Psychological Review*, vol. 84, pp.191-215.
- Bandura, A. & Menlove, F.L. 1968, 'Factors determining vicarious extinction of avoidance behavior through symbolic modelling', *Journal of Personality and Social Psychology*, vol. 8, pp.99-108.
- Bargh, J.A. 1990, 'Auto-motives: Preconscious determinants of social interaction', in E. T. Higgins & R. M. Sorrentino (eds.), *Handbook of motivation and cognition*, vol. 2, Guilford, New York, pp. 93-130.
- Barrett, L.F. & Russell, J.A. 1998, 'Independence and Bipolarity in the Structure of Current Affect', *Journal of Personality and Social Psychology*, vol. 74, pp. 967-984.
- Batson, C.D. 1990, 'How social an animal? The human capacity for caring', *American Psychologist*, vol. 45, pp. 336-346.
- Baxter, M.G. & Murray, E.A. 2002, 'The amygdala and reward', *Nature Reviews Neuroscience*, vol. 3, no. 7, pp. 563-573.
- Beard, C. & Wilson, J. 2002, *The Power of Experiential Learning*, Kogan Page, London.

- Beninger, R.J. 1983, 'The role of dopamine in locomotor activity and learning', *Brain Research*, vol. 287, pp.173-196.
- Benware, C. & Deci, E.L. 1984, 'The quality of learning with an active versus passive motivational set', *American Research Journal*, vol. 21, pp. 755-765.
- Berns, G. 2010, *Iconoclast*, Harvard Business Press, Boston, Mass.
- Biederman, I. 1972, 'Perceiving real-world scenes', *Science*, vol.177, pp. 77-80.
- Black, G. 2005, *The Engaging Museum*, Routledge, London and New York.
- Blandler, R. 1988, 'Brain mechanisms of aggression as revealed by electrical and chemical stimulation: Suggestions of a central role for the midbrain periaqueductal grey region', in A.N. Epstein & J.M. Sprague (eds.), *Progresses in psychobiology and physiological psychology*, Academic Press, San Diego, vol. 13, pp. 67-154.
- Bogdan, R. & Biklen, S.K. 1982, *Qualitative Research for Education: An introduction to Theory and Methods*, Allyn and Bacon, Boston.
- Boitano, J. 1996, 'Edelman's biological theory of consciousness', in S. Hameloff, A. Kaszniak & A. Scott (eds.), *Toward a science of consciousness: the first Tucson discussions and debates*, Massachusetts Institute of Technology Press, Cambridge.
- Borun, M., Chambers, M. & Cleghorn, A. 1996, 'Families are Learning in Science Museums', *Curator*, vol. 39, no. 2, pp. 123-138.
- Botella, L., Herrero, O., Pacheco, M. & Corbella, S. 2004, 'Working With Narrative in Psychotherapy', in L.E. Angus & J. McLeod (eds.), *The Handbook of Narrative and Psychotherapy*, Sage Publications, Thousand Oaks, CA, p. 119.
- Boud, D., Cohen, R. & Walker, D. (eds.) 1993, *Using Experience for Learning*, The Society for Research into Higher Education and Open University Press, Buckingham.
- Boud, D., Keogh, R. & Walker, D. (eds.) 1985, *Reflection: Turning Experience into Learning*, Routledge Falmer, New York.
- Boud, D. & Miller, N. (eds.) 1996, *Working with Experience*, Routledge, London.
- Boud, D. & Walker, D. 1991, *Experience and Learning*, Deakin University Press, Geelong, Victoria.
- Bowen, J. & Hobson, P. 1974, *Theories of Education*, John Wiley and Sons, Sydney.

- Bowen, J. & Hobson, P. 1987, *Theories of Education: Studies of Significant Innovation in Western Educational Thought* (2<sup>nd</sup> Edition), John Wiley and Sons, Brisbane.
- Boyd, W.L. 1992, 'Foreword', in J.H. Falk & L.D. Dierking (eds.), *The Museum Experience*, Whalesback Books, Washington DC, pp. ix-xi.
- Bradburn, N.M. 1969, *The Structure of Psychological Well-Being*, Aldino, Chicago.
- Brentano, F. 1874, *Psychology from an Empirical Standpoint*, translated by A.C. Rancurello, D.B. Terrell and L.L. McAlister, Routledge & Kegan Paul, London.
- Bruner, J.S. 1990, *Acts of Meaning*, Harvard University Press, Cambridge, MA.
- Bruner, J.S. 1996, 'Frames for Thinking', in *Modes of Thought*, ed. D.R Olson and N.Torrance, Cambridge University Press, Cambridge, UK.
- Bruner, J. 2004, 'The Narrative Creation of Self', in L.E. Angus & J. McLeod (eds) *The Handbook of Narrative and Psychotherapy*, Sage Publications, Thousand Oaks, CA, p. 4.
- Buck, R. 1984, *The communication of Emotion*, Guilford, New York.
- Buck, R. 1988, *Human Motivation and Emotion*, 2<sup>nd</sup> Edition, John Wiley & Sons, New York.
- Buck-Morss, S. 1975, 'Socio-economic bias in Piaget's theory and its implications for cross-cultural studies', *Human Development*, vol.18, pp. 35-49.
- Burnard, P. 1991, *Experiential Learning in Action*, Avebury, England.
- Burns, S.A. 1998, *The Emotional Experience of the Adult Learner*, University of South Australia, Adelaide.
- Bye, D., Pushkar, D., & Conway, M. 2007, 'Motivation, interest, and positive affect in traditional and nontraditional undergraduate students'. *Adult Education Quarterly*, vol. 57, no. 2, pp. 141-158.
- Cacioppo, J.T. & Berntson, G.G. 1994, 'Relationships between attitudes and evaluative space: A critical review with emphasis on the separability of positive and negative substrates', *Psychological Bulletin*, vol. 115, pp. 401-423.
- Cacioppo, J.T., Berntson, G.G. & Klein, D.J. 1992, 'What is an Emotion? The Role of Somatovisceral Afference, with special emphasis on somato visceral illusions', *Review of Personality and Social Psychology*, vol. 14, pp. 63-98, in 'Capturing the Dynamic Nature of Recreation Experience', *Journal of Leisure Research*, vol. 24, no.3, pp. 240-252.

- Campbell, S. 1997, *Interpreting the Personal: Expression and the Formation of Feelings*, Cornell University Press, Ithaca.
- Cannon, W.B. 1927, 'The James-Lange theory of emotion: A critical examination and an alternative theory', *American Journal of Psychology*, vol. 39, pp. 110-124.
- Carr, W. & Kemmis, S. 1986, *Becoming Critical: Knowing through action research*, Deakin University, Geelong.
- Carter, S. & Pasqualini, M.C.S. 2004, 'Stronger Autonomic Response Accompanies Better Learning: A Test of Damasio's Somatic Marker Hypothesis', *Cognition and Emotion*, vol. 18, pp. 901-911.
- Celsi, R.L. & Olsen, J.C. 1988, 'The role of involvement in attention and comprehension processes', *Journal of Consumer Research*, vol. 15, no. 2, pp. 210-224.
- Chatman, S. 1990, *Coming to Terms: The Rhetoric of Narrative in Fiction and Film*, Cornell University Press, Ithaca.
- Child, D. 1997, *Psychology and the Teacher*, 6<sup>th</sup> edition, Cassell, London.
- Chiodo, J. & Rupp, A. 1999, 'Setting the Stage for Meaningful Exhibits', *Exhibitionist*, vol. 18, no. 2, pp. 19-21.
- Chodorow, N. 1997, *Jung on Active Imagination*, Princeton University Press, Princeton.
- Chodorow, N. 1999, *The Power of Feeling: Personal Meaning in Psychoanalysis, Gender, and Culture*, Yale University Press, New Haven.
- Clark, M.C. & Dirks, J.M. 2000, 'Models of the self: A reflective dialogue', in B. Hayes & A. Wilson (eds.), *Handbook 2000 - Adult and Continuing Education*, Jossey-Bass, San Francisco.
- Clore, G., Ortony, A. & Foss, M. 1987, 'The psychological foundations of the affective lexicon', *Journal of Personality and Social Psychology*, vol. 53 (Oct), pp. 751-755.
- Cohen, J.B. & Areni, C.S. 1991, 'Affect and consumer behaviour', in *Handbook of Consumer Behavior*, T.S. Robertson & H.H. Kassarian (eds.), Prentice-Hall, Englewood Cliffs, NJ, pp. 18-240.
- Cooper, C.R. 1999, 'Multiple Selves, Multiple Worlds: Cultural perspectives on individuality and connectedness in adolescent development', in A. Masten (ed.), *Minnesota Symposium on Child Psychology: Cultural processes in development*, Lawrence Erlbaum Associates, Mahwah, NJ, pp. 25-57.
- Crane, S.A. 2000, *Museums and Memory*, Stanford University Press, Stanford, CA.

- Creswell, J.W. 1998, *Qualitative Inquiry and Research Design*, Sage, Thousand Oaks, CA.
- Creswell, J.W. & Miller, D.L. 2000, 'Determining validity in qualitative inquiry', *Theory into Practice*, vol. 39, no. 3, pp. 124-131.
- Crick, F. & Koch, C. 1990, 'Towards a neurobiological theory of consciousness', *Seminars in the Neurosciences*, vol. 2, pp. 263-275.
- Crick, F.C. & Koch, C. 2003, 'What are the neural correlates of consciousness?', in L. van Hemmen & T.J. Sejnowski (eds.), *Systems Neuroscience*, Oxford University Press, New York.
- Crites, S.L., Jr., Fabrigar, L.R., & Petty, R.E. 1994, 'Measuring the affective and cognitive properties of attitudes: Conceptual and methodological issues', *Personality and Social Psychology Bulletin*, vol. 20, pp. 619-634.
- Crosby, A. 1988, 'A critical look: The philosophic foundations of experiential education', in R. Kraft & M. Sakoffs (eds.), *The Theory of Experiential Education*, Association for Experiential Education, Boulder, CO.
- Crotty, M. 1996, *Phenomenology and Nursing Research*, Churchill Livingstone, Melbourne.
- Csikszentmihalyi, M. 1975, *Beyond Boredom and Anxiety*, Jossey-Bass, San Francisco.
- Csikszentmihalyi, M. & Hermanson, K. 1995, 'Intrinsic motivation in museums: why does one want to learn?', in J.H. Falk and L.D. Dierking (eds.) *Public institutions for personal learning*; American Association of Museums, Washington, DC, pp. 67-77.
- Csikszentmihalyi, M. & Hermanson, K. 2004, 'Intrinsic motivation in museums: why does one want to learn?', in E. Hooper-Greenhill (ed.), *The educational role of the museum*, Routledge, London, pp. 146-160.
- Csikszentmihalyi M. & Nakamura, J. 1989, 'The dynamics of intrinsic motivation: A study of adolescents', *Research on Motivation in Education, Goals and Cognitions*, vol. 3, Academic Press, New York.
- Csikszentmihalyi, M. & Schiefele, U. 1992, 'Arts education, human development and the quality of experience', in B. Reimer & R.A. Smith (eds.), *The arts education and aesthetic knowing*, National Society for the Study of Education, Chicago, pp. 169-191.
- Damasio, A.R. 1994, *Descartes' Error: Emotion, Reason, and the Human Brain*, Avon Books, New York.
- Damasio, A.R. 1999, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*, Harcourt Brace, New York.



- Davidson, K.J. 1994, 'Emotion, mood, and related affective constructs', in P. Ekman & R.N. Davidson (eds.), *The Nature of Emotion: Fundamental questions*, Oxford University Press, New York, pp. 51-55.
- Deci, E.L. 1992, 'The relation of interest to the motivation of behavior: A self-determination theory perspective', in K.A. Renninger, S. Hidi & A. Krapp (eds.), *The Role of Interest in Learning and Development*, Erlbaum, Hillsdale, NJ, pp. 43-70.
- Deci, E.L. 1996, 'Making room for self-regulation: Some thoughts on the link between emotion and behavior: Comment', *Psychological Inquiry*, vol. 7, pp. 220-223.
- Deci, E.L. & Ryan, R.M. 1985, *Intrinsic Motivation and Self-determination in Human Behavior*, Plenum, New York.
- Deci, E.L. and Ryan, R.M. 1991, 'A motivated approach to self: integration in personality', in R. Dienstbier (ed.) *Nebraska Symposium on Motivation*, Vol. 38, pp. 237-288, University of Nebraska Press, Lincoln, NB.
- Deci, E.L. & Ryan, R.M. 2000, 'The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior', *Psychological Inquiry*, vol. 11, no. 4, pp. 227-268.
- Dennett, D.C. 1991/1993, *Consciousness Explained*, The Penguin Press, Allen Lane.
- Denzin, N.K. 1978, *The Research Act: A theoretical introduction to sociological methods*, 2<sup>nd</sup> edition, McGraw-Hill, New York.
- Denzin, N.K. 1984, *On Understanding Emotion*, Jossey-Bass, San Francisco.
- Denzin, N.K. 1989, *Interpretive Biography; Qualitative Research Methods*, Sage, Thousand Oaks, CA.
- Denzin, N.K. and Lincoln, Y.S (eds) 1994, *Handbook of Qualitative Research*, Sage, Thousand Oaks, CA.
- Dewey, J. 1913, *Interest and Effort in Education*, Riverside Press, Boston.
- Dewey, J. 1916, *Democracy and education*, Macmillan, New York.
- Dewey, J. 1925/1958, *Experience and Nature*, Dover, New York.
- Dewey, J. 1938/1975, *Experience and Education*, Macmillan, New York.
- Diener, E. & Emmons, R.A. 1985, 'The independence of positive and negative affect', *Journal of Personality and Social Psychology*, vol. 47, pp. 1105-1117.

- Dirkx J.M. 2001, 'The Power of Feelings: Emotion, Imagination, and the Construction of Meaning in Adult Learning', *New Directions for Adult and Continuing Education*, vol. 89, pp. 63-71.
- Dirkx, J.M. & Spurgin, M.E. 1992, 'Implicit Theories of Adult Basic Education Teachers: How their Beliefs about Students Shape Classroom Practice', *Adult Basic Education*, vol. 2, no.1, pp. 20-41.
- Doering, Z.D. & Pekarik, A.J. 2000, 'Questioning the entrance narrative', in J.S. Hirsch & L.H. Silverman (eds.), *Transforming Practice: Selections from the Journal of Museum Education (1992-1999)*, Museum Education Roundtable, Washington DC, pp. 261-267.
- Dryden, D. 2004, 'Memory, Imagination, and Cognitive Value of the Arts', *Consciousness and Cognition*, vol. 13, pp. 254-267.
- Dudley, S. 2010, *Museum Materialities: Objects, Engagements, Interpretations*, Routledge, London and New York.
- Dudley, S. 2012, *Museum Objects: Experiencing the Properties of Things*, Routledge, London and New York.
- Eagly, A.H., Mladinic, A. & Otto, S. 1994, 'Cognitive and affective bases of attitude toward social groups and social policies', *Journal of Experimental Social Psychology*, vol. 46, pp. 735-754.
- Edelman, G.M. 1987, *Neural Darwinism: The Theory of Group Selection*, Basic Books, New York.
- Edell, J.A. & Burke M.C. 1987, 'The Power of Feeling in Understanding Advertising Effects', *Journal of Consumer Research*, vol. 14, pp. 421-433.
- Eisner, E.W. 1991, *The Enlightened Eye: Qualitative Inquiry and the Enhancement of Educational Practice*, Macmillan, New York, NY.
- Ekman, P. 1992, 'An argument for basic emotions', *Cognition and Emotion*, vol. 6, pp. 169-200.
- Ekman, P. 1994, 'Moods, emotions and traits', in P. Ekman & R. Davidson (eds.), *The Nature of Emotion: Fundamental Questions*, Oxford University Press, New York, pp. 15-19.
- Ellenbogen, K. 2002, 'Museums in Family Life: An Ethnographic Case Study', in G. Leinhardt, K. Crowley & K. Knutson (eds.), *Learning Conversations in Museums*, Lawrence Erlbaum Associates, New Jersey, pp. 81-101.
- Ellsworth, P. C. & Smith, C. A. 1985, 'Patterns of cognitive appraisal in emotion', *Journal of Personality and Social Psychology*, vol. 48, pp. 813-838.

- Ellsworth, P.C. & Smith, C.A. 1988, 'Shades of joy: Patterns of appraisal differentiating among positive emotion', *Cognition & Emotion*, vol. 2, pp. 301-331.
- Enns, J.T. & Di Lollo, V. 2000, 'What's new in visual masking?', *Trends in Cognitive Sciences*, vol. 4, pp. 345-352.
- Epstein, S. 1973, 'The self concept revisited, or a theory of theory', *American Psychologist*, vol. 28, pp. 404-416.
- Epstein, S. 1991a, 'The self-concept, the traumatic neurosis, and the structure of personality' in D. Ozer, J. M. Healy, Jr., & A. J. Stewart (Eds.), *Perspectives in personality*, Jessica Kingsley Publishers Ltd., London, vol. 3A, pp. 63-98.
- Epstein, S. 1991b, 'The cognitive self, the psychoanalytical self, and the forgotten selves. Comment on Drew Western's 'The cognitive self and the psychoanalytic self: Can we put ourselves together?', *Psychological Inquiry*, vol. 3, pp. 34-37.
- Erikson, E.H. 1959, *Identity and the Life Cycle. Part One: Psychological issues*, International Universities Press, New York.
- Falk, J.H. 1976, 'Outdoor education: A technique for assessing student behaviors', *School Science and Mathematics*, vol. 75, pp. 226-230.
- Falk, J.H. 2000, 'Assessing the Impact of Museums', *Curator*, vol. 43, no.1, pp. 5-7.
- Falk, J.H. 2002, 'Utilizing personal meaning mapping to assess public attitudes and knowledge of first nation peoples', in P. Harvey (ed.), *Visitor-centered Exhibition Development Workbook*, Museum of Civilization, Quebec, CA.
- Falk, J.H. 2005, 'Free-choice environmental learning: Framing the discussion', *Environmental Education Research*, vol. 11, no. 3, pp. 265-280.
- Falk, J.H. 2006, 'An identity-centered approach to understanding museum learning', *Curator*, vol. 49, no. 2, pp.151-166.
- Falk, J.H. 2007, 'Toward an Improved Understanding of Learning From Museums: Filmmaking as Metaphor' in J. Falk, L. Dierking and S. Foutz (eds.), *In Principle, In Practice*, AltaMira Press, Lanham, MD.
- Falk, J.H. 2009, *Identity and the Museum Visitor Experience*, Left Coast Press, Walnut Creek, CA.
- Falk, J.H. & Dierking, L.D. 1992, *The Museum Experience*, Whalesback Books, Washington, D.C.
- Falk, J.H. & Dierking, L.D. (eds) 1995, *Public Institutions for Personal Learning: Establishing a Research Agenda*, American Association of Museums, Washington DC.

- Falk, J.H. & Dierking, L.D. 2000, *Learning from Museums: Visitor Experiences and the Making of Meaning*, AltaMira Press, Walnut Creek, CA.
- Falk, J.H. & Dierking, L.D. 2002, *Lessons without Limit: How Free-Choice Learning is Transforming Education*, AltaMira Press, Walnut Creek, CA.
- Falk, J.H. & Dierking, L.D. 2004, 'The contextual model of learning', in G. Anderson (ed.), *Reinventing the Museum: Historical and Contemporary Perspectives on the paradigm shift*, AltaMira Press, Walnut Creek, CA, pp. 139-142.
- Falk, J.H. & Dierking L.D. 2013, *The Museum Experience Revisited*, Left Coast Press, Walnut Creek, CA.
- Falk, J.H., Dierking, L.D. & Holland, D. 1995, 'What do we think people learn in museums?' in J. Falk & L. Dierking (eds.) *Public Institutions for Personal Learning: Establishing a Research Agenda*, American Association for Museums, Washington, DC, pp.17-22.
- Falk, J.H., Heimlich, J. & Bronnenkant, K. 2008, 'Using identity-related visit motivations as a tool for understanding adult zoo and aquarium visitor's meaning making', *Curator*, vol. 51(1), pp.55-80.
- Falk, J.H., Moussouri, T. & Coulson, D. 1998, 'The Effect of Visitors' Agendas on Museum Learning', *Curator*, vol. 41, no. 2, pp. 107-120.
- Falk, J.H. & Storksdieck, M. 2004, 'Understanding the long-term impacts of a science center visit'. *Final Report to the National Science Foundation, Grant # 0125545*, Institute for Learning Innovation, Annapolis, MD.
- Falk, J.H. & Storksdieck, M. 2005, 'Using the Contextual Model of Learning to understand visitor learning from a science center exhibition', *Science Education*, vol. 89, no. 5 pp. 744-778.
- Fauconnier, G. & Turner, M. 2002, *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*, Basic Books, New York.
- Field, D.R. and Wagner, J.A. 1973, 'Visitor groups and interpretation in parks and other outdoor leisure settings', *Journal of Environmental Education*, vol. 5, no. 1, pp. 12-17.
- Fienberg, J. & Leinhardt, G. 2002, 'Looking Through The Glass: Reflections of identity in Conversations at a History Museum', in G. Leinhardt, K. Crowley & K. Knutson (eds.), *Learning Conversations in Museums*, Lawrence Erlbaum Associates, Mahwah, pp. 167-211.
- Fireman, G.D., McVay, T.E. & Flanagan, O.J. 2003, *Narrative and Consciousness: Literature, Psychology and the Brain*, Oxford University Press, Oxford.
- Fischer, C.T. 2006, *Qualitative Research Methods for Psychologists: Introduction through empirical studies*, Academic Press, New York.

- Fisher, C.D. and Noble, C.S. 2004, 'A Within-Person Examination of Correlates of Performance and Emotions While Working', *Human Performance*, Vol. 17, no. 2, pp.145-168.
- Forrester, D. & Jantzie, N. 2002, 'Learning theories', Online: [http://www.ucalgary.ca/~gnjantzi/learning\\_theories.htm](http://www.ucalgary.ca/~gnjantzi/learning_theories.htm) [Accessed: 12<sup>th</sup> July, 2008]
- Fraser, A. & Coulson, H. 2012, 'Incomplete Stories', in S. MacLeod, L.H. Hanks, & J. Hale (eds.), *Museum Making*, Routledge, London and New York, pp. 223-233.
- Fredrickson, B.L. 1998, 'What good are positive emotions', *Review of General Psychology*, vol. 2, no. 3, pp. 300-319.
- Fredrickson, B.L., & Kahneman, D. 1993, 'Duration neglect in retrospective evaluations of affective episodes', *Journal of Personality and Social Psychology*, vol. 65, pp. 45-55.
- Freire, P. 1972, *Pedagogy of the Oppressed*, Penguin, Harmondsworth.
- Frijda, N. H. 1986, *The Emotions*, Cambridge University Press, Cambridge, England.
- Frijda, N.H. 1993, 'The place of appraisal in emotion', *Cognition and Emotion*, vol. 7, no. 3/4, pp. 357-387.
- Frijda, N.H. & Mesquita, B. 1994, 'The social role and functions of emotions', in S. Kitayama & H.R. Markus (eds.), *Emotion and Culture: Empirical Studies of Mutual Influence*, American Psychological Association, Washington DC.
- Gadamer, H.G. 1975, *Truth and Method*, Seabury, New York.
- Gardenfors, P. 2006, *How Homo became Sapiens: On the Evolution of Thinking*, Oxford University Press, Oxford.
- Gardner, H. 1982, *Art, Mind, and Brain: A cognitive approach to creativity*, Basic Books, New York.
- Gardner, H. 1985, *Frames of the Mind: The Theory of Multiple Intelligences*, Basic Books, New York.
- Geertz, C. 1973, *The Interpretation of Cultures*, Basic Books, New York.
- Gerrig, R.J. & Egidi, G. 2003, 'Cognitive Psychological Foundations of Narrative Experiences', in D. Herman (ed), *Narrative Theory and the Cognitive Sciences*, CSLI Publications, CA.
- Gibbons, S. L. 1994, *Kant's Theory of Imagination*, Clarendon Press, Oxford.

- Gilboa, E. & Revelle, W. 1994, 'Personality and the structure of affective responses', in S.H. van Goozen, N.E. van de Poll & J.A. Sergeant (eds.), *Emotions: Essays on Emotion Theory*, Erlbaum, Hillsdale, NJ, pp. 135-159.
- Glover Frykman, S. 2009, 'Stories to Tell? Narrative Tools in Museum Education Texts', *Educational Research*, vol. 51, no. 3, pp. 299-317.
- Gochenour, T. (ed.) 1993, *Beyond Experience: An experiential approach to cross-cultural education*, 2<sup>nd</sup> edition, World Learning Inc, Maine.
- Golding, V. 2009, *Learning at the Museum Frontiers*, Ashgate, Surrey, UK and Burlington, VT.
- Goodale, M.A. & Milner, A.D. 2004, *Sight Unseen: An Exploration of Conscious and Unconscious Vision*, Oxford University Press, Oxford.
- Goulding, C. 2000, 'The Museum Environment and the Visitor Experience', *European Journal of Marketing*, vol. 34, pp. 261-278.
- Graburn, N.H. 1977, 'The Museum and the Visitor Experience', *Roundtable Reports*, Fall, pp. 1-5.
- Graham, M. 2007, 'An interview with artist Fred Wilson', *Journal of Museum Education*, vol. 32, no. 3, pp. 209-218.
- Graham, S.W., Donaldson, J.F., Kasworm, G. & Dirkx, J.M. 2000, *The experience of adult undergraduate students - What shapes their learning?*, American Educational Research Association, New Orleans.
- Gray, J., Braver, T., & Raichle, M. 2002, 'Integration of emotion and cognition in the lateral prefrontal cortex', *Proceedings of the National Academy of Sciences, U.S.A.*, vol. 99, pp. 4115-4120.
- Gray, J.E. & Dirkx, J.M. 2000, 'The Good, the Bad, and the Struggling: Beliefs about Student Preparedness among Teachers in an Adult Learning College', in *Proceeding of the 19<sup>th</sup> Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education*, University of Wisconsin, Madison, WI.
- Grbich, C. 2007, *Qualitative Data Analysis: An introduction*, Sage, Thousand Oaks, CA.
- Greenfield, S. 1997, *The Human Brain: A guided tour*, Weidenfield & Nicolson, London.
- Griffin, J. 1998, *School-Museum Integrated Learning Experiences in Science: A Learning Journey*, Unpublished PhD, University of Technology, Sydney
- Griffin, J. 2002, 'Finding evidence of learning in museum settings', in E. Scanlon, E. Whitelegg & Yates (eds.), *Communicating Science: Contexts and Channels*, Routledge, London.

- Groeger, J.A. 1997, *Memory and Remembering: Everyday memory in context*, Addison-Wesley-Longman, London.
- Grolnick, W.S. & Ryan, R.M. 1987, 'Autonomy of children's learning: An experimental and individual difference investigation', *Journal of Personality and Social Psychology*, vol. 52, pp. 890-898.
- Guba, E.G. 1978, *Toward a methodology of naturalistic inquiry in educational evaluation* (Monograph 8), UCLA Center for the Study of Evaluation, Los Angeles.
- Guignon, C.B. 1993, *The Cambridge Companion to Heidegger*, Cambridge University Press, Cambridge.
- Guillemin, M. & Gillam, L. 2004, 'Ethics, reflexivity, and "ethically important moments" in research', *Qualitative Inquiry*, vol. 10, no. 2, pp. 261-280.
- Gunther, Y.H. 2004, 'The phenomenology and intentionality of emotion', *Philosophical Studies*, vol. 117, no. 1-2, pp. 43-55.
- Haberlandt, K. 1998, *Human memory: Exploration and application*, Allyn & Bacon, Boston.
- Haggard, L.M. & Williams, D.R. 1991, 'Self-identify benefits of leisure activities', in B.L. Driver, P.J. Brown, & G.L. Peterson (eds.), *Benefits of Leisure*, Venture, State College, PA, pp. 103-120.
- Ham, S.H. 1983, 'Cognitive psychology and interpretation: synthesis and application', *Journal of Interpretation* vol. 8, no.1, pp. 11-25.
- Harter, S. 1998, 'The development of self-presentations', in N. Eisenberg & W. Damon (eds.), *Handbook of Child Psychology (5<sup>th</sup> edition)*, Wiley, New York, pp. 553-617.
- Haviland, J.M. & Kahlbaugh, P.E. 1993, 'Emotion and identity', *Journal of Consumer Research*, vol.13, pp. 394-404.
- Havlena, W. J., Holbrook, M.B. and Lehman, D.R. 1989, 'Assessing the validity of motional typologies', *Psychology & Marketing*, vol. 6, no. 2, pp. 97-112.
- Hayllar, B. 1999, *Outdoor Management Development: A phenomenological analysis*, Thesis for Doctorate of Philosophy, University of Technology, Sydney.
- Heath, G. 2008, 'Exploring the Imagination to Establish Frameworks for Learning', *Studies in Philosophy and Education*, vol. 27, no. 2/3, pp. 115-123.
- Hedges, S.M., Jandorf, L. & Stone, A.A. 1985, Meaning of Daily Emotional Measurements, *Journal of Personality and Social Psychology*, vol. 48, pp. 428-434.

- Hegel, G.W.F. 1910, *The Phenomenology of the Mind*, Allen & Unwin, London.
- Heidegger, M. 1964, *The Task of Thinking*, in Krell, D.F. 2008, 'Martin Heidegger Basic Writings from Being in Time (1927) to The Task of Thinking (1964)', Harper Perennial Modern Thought, London.
- Heidegger, M. 1927, *Basic Writings from Being and Time*, Harper & Row, New York.
- Heidegger, M. 1927/1962/1997, *Being and Time*, Blackwell, Oxford.
- Heidegger, M. 1935/1977, "*The Origin of the Work of Art*" in *Poetry, Language, Thought*, Translated by A. Hofstadter, Harper & Row, New York.
- Heidegger, M. 1954/1977, *What is Called Thinking?*, translated by J. Scanlon, Martinus Nijhoff, The Hague.
- Heidegger, M. 1929, *Kant and the Problem of Metaphysics*, English trans. J. Churchill, 1962, Indiana University Press, Bloomington, Ind.
- Hein, G.E. 1991, *Constructivist Learning Theory*, Paper presented at the ICOM/CECA Annual Conference (15-22 October), Jerusalem, Israel.
- Hein, G.E. 1995, 'The Constructivist Museum', *Journal of Education in Museums*, no.15, pp. 1-10.
- Hein, G.E. 1996, 'Constructivist Learning Theory', in G. Durbin (ed.), *Developing Museum Exhibitions for Lifelong Learning*, The Stationary Shop, London, pp. 30-34.
- Hein, G.E. 1998, *Learning in the Museum*, Routledge, London and New York.
- Hein, G.E. 1999, 'Is Meaning Making Constructivism? Is Constructivism Meaning Making?', *Exhibitionist*, vol.18, no. 2, pp. 15-18.
- Hein, H.S. 2000, *The Museum in Transition: A Philosophical Perspective*, Smithsonian Institution Press, Washington.
- Hein, G.E. & Alexander, M. 1998, *Museums, Places of Learning*, American Association of Museums, Washington DC.
- Hennink, M., Hutter, I. & Bailey, A. 2011, *Qualitative Research Methods*, Sage, London.
- Herbart, J.F. 1806/1965, 'Allgemeine Pädagogik, aus dem Zweck der Erziehung abgeleitet', in J.F. Herbart (ed.), *Pädagogische schriften*, vol. 2, Kuepper, Düsseldorf.
- Herbart, J.F. 1841/1965, *Writings on Education*, Kuepper, Düsseldorf.
- Herman, D. (eds) 2003, *Narrative Theory and the Cognitive Sciences*, CSLI Publications, CA.



- Heron, J. 1990, *Helping the Client*, Sage, London.
- Heron, J. 1991, *The Facilitators Handbook*, Kogan Page, London.
- Heron, J. 1992, *Feeling and Personhood: Psychology in Another Key*, Sage, London.
- Hidi, S. 1990, 'Interest and its contribution as a mental resource for learning', *Review of Educational Research*, vol. 60, no. 4, pp. 549-571.
- Hidi, S. 2000, 'An interest researcher's perspective: The effects of intrinsic and extrinsic factors on motivation' in C. Sansone & J. M. Harackiewicz (eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance*, Academic Press, San Diego, CA, pp. 309-339.
- Hidi, S. and Renninger, K.A. 2006, 'The Four-Phase Model of Interest Development', *Educational Psychologist*, vol. 41, no. 2, pp.111-127.
- Higgins, E.T. 1987, 'Self-discrepancy: A theory relating to self and affect', *Psychological Review*, vol. 94, pp. 319-340.
- Holbrook, M.B. & Batra, R. 1987, 'Assessing the Role of Emotions as Mediators of Consumer Responses to Advertising', *Journal of Consumer Research*, vol.14, pp. 404-420.
- Holmberg, D. & Holmes, J.G. 1994, 'Reconstruction of relationship memories: A mental models approach', in N. Schwartz & S. Sudman (eds.), *Autobiographical memory and the validity of retrospective reports*, Springer Verlag, New York.
- Hood, M. 1981, 'Leisure Criteria of Family Participation and Non-Participation in Museums', in J. Falk 2009, *Identity and the Museum Visitor Experience*, Left Coast Press, Walnut Creek, CA.
- Hooper-Greenhill, E. 1994, *The Educational Role of Museum*, Routledge, London.
- Hooper-Greenhill, E. 1995, *Museum, Media, Message*, Routledge, London.
- Hooper-Greenhill, E. 1996, 'The Exhibition Policy' in *Durbin*, ed. Gail.
- Hooper-Greenhill, E. 1999, *Museums and Interpretive Communities, Conference Paper, "Musing on learning"*, Australian Museum, Sydney.
- Hooper-Greenhill, E. 2000, *Museums and the Interpretation of Visual Culture*, Routledge, London.
- Hooper-Greenhill, E. 2004, *The Educational Role of the Museum*, Routledge, London.
- Hooper-Greenhill, E. 2007, *Museums and Education: Purpose, Pedagogy, Performance*, Routledge, London and New York.

- Hooper-Greenhill E. & Moussouri, T. 2001, *Researching learning in museums and galleries 1990-1999: A bibliographic review*, Research Centre for Museums and Galleries, Open University of Leicester, Leicester.
- Hopkins, R. 2011, *Imagination and Affective Response*, in J. Webber (ed.), 'Reading Sartre', Routledge, London and New York, p. 100.
- Huitt, W. & Hummel, J. 2003, 'Piaget's theory of cognitive development', *Educational Psychology Interactive*. Online: <http://chiron.valdosta.edu/whuitt/col/cogsys/piaget.html>, Valdosta State University, Valdosta, GA. [Accessed: 2<sup>nd</sup> December, 2007]
- Hull IV, R.B. 1990, 'Mood is a product of leisure: Causes and Consequences', *Journal of Leisure Research*, vol. 22, pp. 99-111.
- Hull IV, R.B. & Michael, S.E. 1995, 'Nature-based recreation, mood change, and stress reduction', *Leisure Sciences*, vol.17, pp. 1-14.
- Husserl, E. 1911/1980, *Philosophy as a Rigorous Science*, translated by Q. Lauer, Harper Torch Books, New York.
- Husserl, E. 1913/1982, *Ideas: general introduction to pure phenomenology*, Allen & Unwin, London.
- Husserl, E. 1967, 'The thesis of the natural standpoint and its suspension', in J.J. Kockelmans (ed.), *Phenomenology*, Doubleday, Garden City, NY, pp. 68-79.
- Isen, A.M. 1987, 'Positive effect, cognitive processes, and social behaviour', *Advances in Experimental Social Psychology*, vol. 20, pp. 203-253.
- Isen, A.M. 2002, 'Missing in action in the AIM: Positive affect's facilitation of cognitive flexibility, innovation, and problem solving', *Psychological Inquiry*, vol. 13, pp. 57-65.
- Isen, A.M. & Reeve, J. 2005, 'The influence of positive affect on intrinsic and extrinsic motivation: Facilitating enjoyment of play, responsible work behavior, and self control', *Motivation and Emotion*, vol. 29, pp. 297-325.
- Isen, A.M. & Schmidt, E. 2007, January, *Positive affect: Broadened focus without increased distractibility*, Paper presented at the Emotions pre-conference to the annual meeting of the Society for Personality and Social Psychology, Memphis, TN.
- Ivanova, E. 2003, 'Changes in Collective Memory: the Schematic Narrative Template of Victimhood in Kharkiv Museums', *Journal of Museum Education*, vol. 28, no.1, pp. 17-22.
- Izard, C.E. 1977, *Human Emotions*, Plenum Press, New York.

- Izard, C.E. 1991, 'Perspectives on emotions in Psychotherapy'. in J.D. Safran & L.S. Greenberg (eds.), *Emotion, psychotherapy and change*, pp. 280-289, Guilford Press, New York, NY.
- Izard, C.E., 1993, 'Four systems for emotion activation: Cognitive and noncognitive processes', *Psychological Review*, vol. 100, pp. 68-90.
- Jaggar, A. 1989, 'Love and Knowledge: Emotion in Feminist Epistemology', *Inquiry*, vol. 32, pp. 151-176.
- James, W. 1884, 'What is emotion?', *Mind*, vol. 4, pp. 118-204.
- James, W. 1890/1950, *The Principles of Psychology*, Dover Publications, New York.
- Jeffery-Clay, K. 1988, 'Constructivism in museums: How museums create meaningful learning environments', *Journal of Museum Education*, vol. 23, no.1, pp. 3-7.
- Jeffery-Clay, K. 1997, 'Constructivism in Museums: How Museums Create Meaningful Learning Environments', in S. Paris (ed.), 'Understanding the Visitor Experience: Theory and Practice, Part 2', Museum Education Roundtable, Washington.
- Jeannerod, M. 1994, 'The representing brain, neural correlates of motor intention and imagery', *Behavioural and Brain Sciences*, vol.17, pp.187-202.
- Kandel, E. 2006, *In Search of Memory*, W.W. Norton & Company, New York and London.
- Kandel, E. & Kupfermann, I. 1995a, 'Emotional states', in E. Kandel, J. Schwartz & T. Jessell (eds.), *Essentials of Neural Science and Behaviour*, Appleton & Lange, Connecticut.
- Kant, I. 1781/1958, *Critique of Pure Reason*, Translated by N. Kemp-Smith, Macmillan, New York.
- Kavanagh, G. 2003, 'Melodrama, pantomime of portrayal? Representing ourselves through exhibitions in history museums' in B.M. Carbonell (ed.), *Museum Studies*, Blackwell, Oxford, pp. 348-355.
- Kearney, L. 1991, *Poetics of Imagining - From Husserl to Lyotard*, Routledge, London.
- Kelly, G.A. 1955, *The Psychology of Personal Constructs, Volume 1: A theory of personality*, Norton, New York.
- Kelly, L. 1999, *Developing access to collections through assessing user needs Conference Paper*, Albury.

- Kelly, L. 2002, 'What is learning... and why do museums need to do something about it?' *Why learning?*, Seminar, Australian Museum / University of Technology, Sydney.
- Kelly, L. 2003, *Paper presented at Art Museums: Sites of Communications Symposium*, National Gallery of Australia, Canberra.
- Kelly, L. 2007, *The Interrelationships Between Adult Museum Visitors' Learning Identities and Their Museum Experiences*, University of Technology, Sydney.
- Kelly, L. 2009, *Museums: "Dumbing down" and the visitor experience*, Unpublished manuscript, University of Technology, Sydney.
- Kidd, J. 2012, 'The museum as narrative witness: heritage performance and the production of narrative space', in S. MacLeod, L.H. Hanks & J. Hale (eds.), *Museum Making*, Routledge, London and New York, pp. 74-82.
- Kidd, W. 2002, *Culture and Identity*, Palgrave, Hampshire.
- Kimmelman, M. 2001, 'Museums in a Quandary: Where are the Ideals?' *New York Times*, 26 August.
- Kincheloe, J. 1991, *Teachers as researchers: Qualitative inquiry as a path of empowerment*, Falmer Press, London.
- King, N. 2000, *Memory, Narrative, Identity: Remembering the Self*, Edinburgh University Press, Edinburgh.
- Knowles, M. 1990, *The Adult Learner: a neglected species*, Gulf Publishing Company, Houston.
- Kohut, H. 1971, *The Analysis of the Self*, International University Press, New York.
- Kolb, D.A. 1984, *Experiential Learning: Experience as the Source of Learning and Development*, Prentice Hall, Englewood-Cliffs, NJ.
- Kossak, F. 2012, 'Productive exhibitions: looking backwards to go forward', in S. MacLeod, L.H. Hanks & J. Hale (eds.), *Museum Making*, Routledge, London and New York, pp. 213-222.
- Krapp, A. 1999, 'Interest, motivation, and learning: An educational-psychological perspective', *European Journal of Psychology of Education*, vol. 14, no. 1, pp. 23-40.
- Krapp, A., Hidi S. & Renninger, K.A. 1992, 'Interest, learning and development', in K.A. Renninger, S. Hidi & A. Krapp (eds.), *The Role of Interest in Learning and Development*, Erlbaum Associates, Hillsdale, NJ, pp. 3-25.
- Krell, D.F. 2008, *Martin Heidegger Basic Writings from Being in Time (1927) to The Task of Thinking (1964)*, Harper Perennial Modern Thought, London.

- Kupfermann, I. & Kandel, E. 1995, 'Learning and Memory', in *Essentials of Neural Science and Behaviour*, E. Kandel, J. Schwartz & T. Jessell (eds.), Appleton & Lange, Connecticut.
- Labouvie-Vief, G., Orwell, L. & Manion, M. 1995, 'Narrative of mind, gender, and the life-course', *Human Development*, vol. 38, pp. 239-257.
- Lambie, J.A. & Marcel, A. 2002, 'Consciousness and the varieties of emotion experience: A theoretical framework', *Psychological Review*, vol. 109, no. 2, pp. 219-259.
- Larsen, J. T., McGraw, P., & Cacioppo, J. T. 2001, 'Can people feel happy and sad at the same time', *Journal of Personality and Social Psychology*, vol. 81, pp. 684-696.
- Lawrence, R.L. 2008, 'Powerful Feelings: Exploring the domain of informal and arts-based learning', *New Directions for Adult and Continuing Education*, vol. 120, pp. 65-77.
- Lazarus, R.S. 1991a, 'Cognition and motivation in emotion', *American Psychologist*, vol. 39, pp. 352-367.
- Lazarus, R.S. 1991b, *Emotion and Adaptation*, Oxford University Press, London and New York.
- LeDoux, J.E. 1992b, Brain systems and emotional memory, in K.T. Strongman (ed.), *International Review of Studies on Emotion*, pp. 23-29, John Wiley and Sons, New York, NY.
- LeDoux, J.E. 1996, *The Emotional Brain; The Mysterious Underpinnings of Emotional Life*, Simon and Schuster, New York.
- LeDoux, J.E., Romanski, L.M. & Xagoraris, A. 1989, Indelibility of subcortical emotional memories, *Journal of Cognitive Neuroscience*, vol. 1, pp. 238-243.
- Lee, Y.J., Dattilo, J. & Howard, L. 1994, 'The complex and dynamic nature of leisure experience', *Journal of Leisure Research*, vol. 26, no. 3, pp. 195-211.
- Lee, B.K. & Shafer, C.S. 2002, 'The Dynamic Nature of Leisure Experience: An Application of Affect Control Theory', *Journal of Leisure Research*, vol. 34, no. 3, pp. 290-310.
- Leinhardt, G. & Crowley, K. 1998, *Museum Learning Collaborative revised Phase 2 Proposal* (proposal submitted to the Institute for Museum and Library Services, Washington, DC, November 1998), University of Pittsburgh, Learning Research and Development Center, Pittsburgh, PA.
- Leinhardt, G., Knutson, K. & Crowley, K. 2003, 'Museum Learning Collaborative Redux', *Journal of Museum Education*, vol. 28, no. 1, pp. 23-31.

- Leinhardt, G., Tittle, C. & Knutson, K. 2002, 'Talking to oneself: Diaries of museum visits', in G. Leinhardt, K. Crowley & K. Knutson (eds) *Learning Conversations in Museums*, Lawrence Erlbaum Associates, Mahwah, pp. 103-133
- Lepper, M.R. & Hodell, M. 1989, 'Intrinsic motivation in the classroom', in C. Ames & R. E. Ames (eds.), *Research on motivation in education*, vol. 3, pp. 73-105, Academic Press, New York.
- Levinson, D. 1990, 'A theory of life structure development in adulthood', in C. Alexander & E. Langer (eds.), *Higher Stages of Human Development: Perspectives on Adult Growth*, Oxford University Press, New York, pp. 35-53.
- Levenson, R.W. 1994, 'Human emotions: A functional view', in P. Ekman & R. Davidson (eds.), *The Nature of Emotion: Fundamental questions*, Oxford University Press, New York, pp. 123-126.
- Lewin, K. 1951, *Field Theory in Social Science*, Harper, New York.
- Lewin, K. 1952, 'Group decisions and social change', in G.E. Swanson, T.M. Newcomb & F.E. Hartley (eds.), *Readings in Social Psychology*, Holt, New York.
- Lewis & Ferrari 2001, 'Identity and Emotion – Development through Self-Organisation', in Liberman, Sagristino & Trope (eds.), 'The effect of temporal distance on level of mental construction', *Journal of Experimental Social Psychology*, Cambridge University Press, Cambridge.
- Lincoln, Y.S. & Guba, E.G. 1985, *Naturalistic Inquiry*, Sage, London.
- Linn, M.C. & Laetsch, W.M. 1976, *Informed decision making (evaluation you can use)*, paper presented at the AESOP Conference, Berkeley, CA.
- Lipton, B. 1979, in *The Museum: A Reference Guide*, M.S. Shapiro with the assistance of L.W. Kemp (1990), Greenwood Press, Westport, CT.
- Livesey, P.J. 1986, *Learning and Emotion: A biological synthesis*, Lawrence Erlbaum Associates, Hillsdale, NJ.
- Lord, B. & Lord, G. 2002, *The Manual of Museum Exhibitions*, Altamira Press, Walnut Creek, CA.
- Lucas, A.M. 1993, 'Constructing knowledge from fragments of learning?', in P.J. Black & A.M Lucas (eds.), *Children's Informal Ideas in Science*, pp. 134-147, Routledge, London.
- Lupton, D. 1998, *The Emotional Self: a Socio Cultural Exploration*, Sage, Thousand Oaks, CA.

- Magai, C. & Hunziker, J. 1993, 'Tolstoy and the riddle of developmental transformation: a lifespan analysis of the role of emotions in personality development', in M. Lewis & J.M. Haviland (eds.), *Handbook of emotions*, Guilford Press, New York, pp. 247-259.
- Malim, T. 1994, *Cognitive Processes*, Macmillan Press, London.
- Mandler, G. 1984, *Mind and body: Psychology of emotion and stress*, Norton, New York.
- Mannell, R. 1980, 'Social Psychological Techniques and Strategies', in *Social Psychological Perspectives on Leisure and Recreation*, S.E. Iso-Ahola, C.C. Thomas Publishers, Springfield, IL.
- Mannell, R. & Kleiber, D. 1997, *A Social Psychology of Leisure*, Venture, State College, PA.
- Markus, H.R. & Wurf, F. 1987, 'The dynamic self-concept: a social psychological perspective', *Annual Review of Psychology*, vol. 38, pp. 299-337.
- Marshall, C. & Rossman, G.B. 1999, *Designing Qualitative Research*, Sage, Thousand Oaks, CA.
- Marshall, C. & Rossman, G.B. 2011, *Designing Qualitative Research*, 5<sup>th</sup> edition, Sage, Los Angeles.
- Marton, F., Hounsell, D. & Entwistle, N. 1997, *The Experience of Learning: Implications for Teaching and Studying in Higher Education*, 2<sup>nd</sup> edition, Scottish Academic Press, Edinburgh.
- Marton, F. & Saljo, R. 1997, 'Approaches to Learning', in F. Marton, D. Hounsell & N. Entwistle (eds.), *The Experience of Learning: Implications for Teaching and Studying in Higher Education*, pp. 39-58, Scottish Academic Press, Edinburgh.
- Masberg, B. & Silverman, L. 1996, 'Visitor experiences at heritage sites: A phenomenological approach', *Journal of Travel Research*, vol. 34, no. 4, pp. 20-25.
- Maslow, A. 1954/1970, *Motivation and Personality*, Harper and Row, New York.
- Mathison, S. 1988, 'Why triangulate?', *Educational Researcher*, vol. 17, no. 2, pp. 13-19.
- Maynes, M., Pierce, J. & Laslett, B. 2008, *Telling Stories*, Cornell University Press, Sage House, New York.
- McAdams, R.P. 1993, *Personal Myths and the Making of the Self*, The Guilford Press, New York.

- McGill, I. & Weil, S.W. 1989, *Making Sense of Experiential Learning*, SRHE/OU Press, Milton Keynes.
- McKellar, P. 1957, *Imagination and Thinking*, Cohen & West, London.
- McLaughlin, H. 1999, 'The pursuit of memory: Museums and the denial of the fulfilling sensory experience', *Journal of Museum Education*, vol. 23, no. 3, pp. 10-21.
- McManus, P.M. 1993, 'Memories as Indicators of the Impact of Museum Visits', *Museum Management and Curatorship*, vol. 12, pp. 367-380.
- Mead, G.H. 1938, *The Philosophy of the Act*, University of Chicago Press, Chicago.
- Mead, G.H. 1982, *The Individual and Social Self: Unpublished work of George Herbert Mead*, D.L. Miller (ed.), University of Chicago Press, Chicago.
- Meadows, E. 1997, 'AAM Learning in Museums Seminar 1', *Journal of Museum Education*, vol. 23, no. 1, pp. 21-22.
- Mehrabian, A. & Russell, J. 1974, *An Approach to Environmental Psychology*, MIT Press, Cambridge, MA.
- Melton, A.W. 1936, 'Distribution of Attention in Galleries of Science and Industry', *Museum News*, vol. 14, issue 3, pp. 6-8 in G.E. Hein (1998), 'Learning in Museums', Routledge, London and New York.
- Merleau-Ponty, N. 1958, 'Phenomenology and sciences of man', translated by J. Wild, in J. Edie (ed.), *The Primacy of Perception*, pp. 43-95, Northwestern University Press, Evanstone.
- Merleau-Ponty, N. 1962, *Phenomenology of Perception*, Routledge and Kegan Paul, London.
- Meszaros, C., Gibson, T. & Carter, J. 2011, 'Interpretation and the Art Museum: Between the Familiar and the Unfamiliar' in J. Fritsch (ed.), *Museum Gallery Interpretation and Material Culture*, Oxon and New York.
- Michelson, E. 1996, 'Usual suspects: Experience, reflection and the (en)gendering of knowledge', *International Journal of Lifelong Education*, vol. 15, pp. 438-454.
- Mihov, K.M., Denzler, M. and Forster, J. 2010, 'Hemispheric specialization and creative thinking: A meta-analytical review of lateralization of creativity', *Brain and Cognition*, vol. 72, pp. 442-448.
- Mikulas, W.L. & Vodanovich, S.J. 1993, 'The essence of boredom', *The Psychological Record*, vol. 43, pp. 3-12.
- Miles, M.B. & Huberman, A.M. 1994, *Qualitative Data Analysis*, Sage, Beverley Hills, CA.



- Mirenowicz, J. & Schultz, W. 1994, 'Importance of unpredictability for reward responses in primate dopamine neurons', *Journal of Neurophysiology*, vol. 72, no. 2, pp. 1024-1027.
- Modell, A. H. 2003, *Imagination and the Meaningful Brain*, MIT Press, Cambridge, Mass.
- Mohanty, J.N. 1964, *Edmund Husserl's Theory of Meaning*, Martinus Nijhoff, The Hague.
- Montague, P.R., Dayan, P. & Sejnowski, T.J. 1996, 'A Framework for Mesencephalic Dopamine Systems based on Predictive Hebbian Learning', *Journal of Neuroscience*, vol. 16, pp. 1936-1947.
- Moon, J.A. 2004,, *A Handbook of Reflective and Experiential Learning: Theory and Practice*, RoutledgeFalmer, London & New York.
- More, W.S. 1974, *Emotions and Adult Learning*, Saxon-House, Farnborough.
- Morris, R. 2012, 'Imaginary Museums: what mainstream museums can learn from them', in S. MacLeod, L.H. Hanks & J. Hale (eds.), *Museum Making*, Routledge, London and New York, pp. 5-11.
- Moussouri, T. 1997, *Family Agendas and Family Learning in Hands-On Museums*, Unpublished PhD, University of Leicester, Leicester, England.
- Moustakas, C. 1994, *Phenomenological Research Methods*, Sage, Thousand Oaks, CA.
- Naceur, A. & Schiefele, U. 2005, 'Motivation and learning - The role of interest in construction of representation of text and long term retention: Inter-and intra-individual analyses', *European Journal of Psychology of Education*, vol. 20, no. 2, pp. 155-170.
- National Museum of Australia website <http://www.nma.gov.au/> [accessed July 2012]
- Neuman, T.P. 1996, *Critically reflective learning in a leadership development context*, Unpublished doctoral dissertation, University of Wisconsin, Madison, WA.
- Neville, B., Willis, P. & Edwards, M. (eds.) 1994, *Qualitative Research in Adult Education*, University of South Australia, Adelaide.
- Oatley, K. 1992, *Best laid schemes: The psychology of emotions*, Cambridge University Press, Cambridge, England.
- Oatley, K. & Johnson-Laird, P.N. 1987, 'Towards a Cognitive Theory of Emotions', *Cognition and Emotion*, vol. 1, pp. 29-50.
- Oatley, K. & Johnson-Laird, P.N. 1996, 'The communicative theory of emotions: Empirical tests, mental models, and implications for social

- interaction', in L.L. Martin & A. Tesser (eds.), *Striving and Feeling*, Erlbaum, Mahwah, NJ, pp. 363-393.
- Ortony, A. & Clore, G.L. 1989, 'Emotions, moods, and conscious awareness', *Cognition & Emotion*, vol. 3, pp. 125-137.
- Ortony, A., Clore, G.L. & Collins, A. 1988, *The Cognitive Structure of Emotions*, Cambridge University Press, Cambridge, UK.
- Osatuke, K., Glick, M.J., Gray, M.A., Reynolds, Jnr., D.J., Humphreys, C.L., Salvi, L.M. & Stiles, W.B. 2004, 'Assimilation and Narrative', in L.E. Angus & J. McLeod (eds.), *The Handbook of Narrative and Psychotherapy*, Sage Publications, Thousand Oaks, CA.
- Packer, J. & Ballantyne, R. 2002, 'Motivational Factors and the Visitor Experience: A Comparison of Three Sites', *Curator*, vol. 45, no. 2, pp. 183-198.
- Packer, J. & Ballantyne, R. 2004, 'Is educational leisure a contradiction in terms?: Exploring the synergy of education and entertainment', *Annals of Leisure Research*, vol. 7, no.1, pp. 50-65.
- Panksepp, J. 1994, 'The clearest physiological distinctions between emotions will be found among circuits in the brain', in P. Ekman & R.J. Davidson (eds.), *The Nature of Emotion: Fundamental Questions*, pp. 258-260, Oxford University Press, New York.
- Papadopoulou, M. & Birch, R. 2007, 'Being in the World: The event of learning', *Educational Philosophy and Theory*, vol. 41, no. 3, pp. 270-286.
- Paris, S.G. 1997a, 'Situated Motivation and Informal Learning', *Journal of Museum Education*, vol. 22, no. 2/3, pp. 22-27.
- Paris, S.G. 1997b, 'Understanding the Visitor Experience: Theory and Practice', *Journal of Museum Education*, Washington.
- Paris, S.G. (ed) 2002, *Perspectives on Object-Centred Learning in Museums*, Lawrence Erlbaum Associates, New Jersey.
- Parker, A. 2006, 'The Cognitive Neuroscience of Memory' in A. Parker, E.L. Wilding & T.J. Bussey (eds.), 2002, Psychology Press, New York.
- Parkinson, B., Briner, R.B., Reynolds, S. & Totterdell, P. 1995, 'Time frames for emotion: Relations between momentary and generalised ratings of affect', *Personality and Social Psychology Bulletin*, 21, 331-339.
- Parkinson, B. & Manstead, A.S.R. 1992, 'Appraisal as a cause of emotion', in M.S. Clark (ed.), *Emotion. Review of Personality and Social Psychology*, pp. 122-149, Sage, Newbury Park, CA.
- Patton, M.Q. 1980, *Qualitative Evaluation Methods*, Sage, Beverley Hills, CA.

- Patton, M.Q. 1990, *Qualitative Evaluation and Research Methods*, 2<sup>nd</sup> edition, Sage Publications, Newbury Park, CA.
- Patton, M.Q. 2002, *Qualitative Evaluation and Research Methods*, 3<sup>rd</sup> edition, Sage Publications, Thousand Oaks, CA.
- Pavlov, I.P. (1927), *Conditioned Reflexes*, Routledge, London.
- Pedretti, E. 2007, 'Challenging Convention and Communicating Controversy: Learning Through Issues-Based Museum Exhibitions' in J. Falk, L. Dierking and S. Foutz (eds.), *In Principle, In Practice*, AltaMira Press, Lanham, MD.
- Pekarik, A.J., Doering, Z.D., & Karns, D.A. 1999, 'Exploring satisfying experiences in museums', *Curator*, vol. 42, no. 2, pp. 152-173.
- Peillon, M. 1990, *The Concept of Interest in Social Theory*, vol. 9, The Edwin Mellen Press, Lewiston, NY.
- Piaget, J. 1951/1962, *Play, Dreams and Imitations in Childhood*, Norton, New York.
- Piaget, J. 1952, *Origins of Intelligence*, International Universities Press, New York.
- Piaget, J. & Inhelder, B. 1969, *The Psychology of the Child*, Basic Books, New York.
- Pine, B.J. & Gilmore, J.H. 1999a, 'The experience economy', *Museum News*, vol. 78, pp. 45-48.
- Pine, B.J. & Gilmore, J.H. 1999b, *The Experience Economy: Work Is Theatre and Every Business a Stage*, Harvard Business School Press, Boston, MA.
- Pintrich, P.R., Smith, D.A.F., Garcia, T., & McKeachie, W. 1991, *A Manual for the Use of the Motivated Strategies for Learning Questionnaire (MSLQ)*, National Center for Research to Improve Postsecondary Teaching and Learning, Michigan, WI.
- Plutchik, R. 1962, *The Emotions: Facts, Theories, and a New Model*, Random House, New York.
- Plutchik, R. & Kellerman, H. (eds.) 1980, *Emotion, Theory, Research, and Experience*, Academic Press, New York.
- Polt, R. 1999, *Heidegger, an Introduction*, UCL Press Limited, London, UK.
- Postle, D. 1993, 'Putting the heart back into learning', in D. Boud, R. Cohen & D. Walker (eds.), *Using Experience for Learning*, The Society for Research into Higher Education and Open University Press, Buckingham.

- Postman, N. 1992, *Technopoly*, Vintage Books, New York.
- Pratt, D. 1993, 'Andragogy after twenty-five years', in S. Merriam (ed.) *An Update on Adult Learning: New Directions in Adult and Continuing Education*, Jossey-Bass, San Francisco.
- Prenzel, M. 1992, 'The selective persistence of interest', in K.A. Renninger, S. Hidi & A. Krapp (eds.), *The Role of Interest in Learning and Development*, pp. 71-98, Erlbaum, Hillsdale, NJ.
- Prenzel, M., Krapp, A. & Schiefele, H. 1986, 'Main aspects of educational theory of interest', *Zeitschrift fuer Paedagogik* (Heft 2), vol. 32, pp. 163-174.
- Prosser, M. 1994, 'Some experiences of using phenomenographic research methodology in the context of research in teaching and learning', in J. Bowden & E. Walsh (eds.), *Phenomenographic Research: Variations in Method*, pp. 31-43, RMIT, Melbourne.
- Ratner, C. 2007, 'Qualitative Methodology and Cultural Psychology', in C. Willig & W. Rogers (eds.), *The handbook of qualitative methodology in psychology*, Sage, London.
- Reece, B.L. & Brandt, R. 1996, *Effective Human Relations in Organizations*, 6<sup>th</sup> edition, Houghton Mifflin Company, Boston.
- Reeve, J. 2009, *Understanding Motivation and Emotion*, 5<sup>th</sup> edition, John Wiley & Sons, New York.
- Reiman, E., Lane, R., Ahern, G., Schwartz, G. & Davidson, R. 1996, 'Positron emission tomography, emotion and consciousness', in S. Hameroff, A. Kaszniak & A. Scott (eds.), *Toward a Science of Consciousness: The first Tucson discussions and debates*, Massachusetts Institute of Technology Press, Cambridge.
- Rennie, L. & Johnston, D. 2004, 'The Nature of Learning and Its Implications for Research on Learning from Museums', *Science Education*, vol. 88 (supplement 1), S4-S16.
- Rennie, L.J. & Williams, G.F. 2002, 'Science centres and scientific literacy: Promoting a relationship with science', *Science Education*, vol. 86, pp. 706-726.
- Renninger, K.A. 1989, 'Individual differences in children's play interest', in L.T. Winegar (ed.), *Social Interaction and the Development of Children's Understanding*, pp. 147-172, Ablex, Norwood, NJ.
- Renninger, K.A. 1990, 'Children's play interests, representation, and activity', in R. Fivush & K. Hudson (eds.), *Knowing and Remembering in Young Children*, pp. 127-165, Cambridge University Press, New York.

- Renninger, K.A. 2000, 'Individual interest and its implications for understanding intrinsic emotion', in C. Sansone & J.M. Harackiewicz (eds.), *Intrinsic and Extrinsic Motivation: The search for optimal motivation and performance*, pp. 375-407, Academic Press, New York.
- Renninger, K.A. & Hidi, S. 2002, 'Student interest and achievement: Developmental issues raised by a case study', in A. Wigfield & J.S. Eccles (eds.), *Development of Achievement and Motivation*, pp.173-195, Academic, New York.
- Renninger, K.A., Hidi, S. & Krapp, A. (eds) 1992, *The Role of Interest in Learning and Development*, Erlbaum, Hillsdale, NJ.
- Riegel, K.F. 1973, 'Dialectical operations: the final period of cognitive development', *Human Development*, vol. 16, pp. 346-370.
- Roberts, L. 1997, *From Knowledge to Narrative: Educators and the Changing Museum*, Smithsonian Institution Press, Washington DC.
- Robinson, E.S. 1928, 'The Behaviour of the Museum Visitor', *American Association of Museums*, New Series, No.5, Washington, DC in G.E. Hein (1998), 'Learning in Museums', Routledge, London and New York.
- Robinson, M.D. & Clore, G.L. 2002, 'Belief and Feeling: Evidence for an Accessibility Model of Emotional Self-Report', *Psychological Bulletin*, vol. 128, no. 6, pp. 934-960.
- Rogers, C. 1951, *Client-centered therapy: It's current practice, implications and theory*, Houghton Mifflin, Boston.
- Roschelle, J. 1995, 'Learning in Interactive Environments: Prior Knowledge and New Experience', in J.H. Falk and L.D.Dierking (eds.) *Public Institutions for Personal Learning: Establishing a Research Agenda*, American Association of Museums, Washington DC, pp. 37-52.
- Rossmann, G.B. & Rallis, S.F. 2003, *Learning in the Field: An introduction to qualitative research*, 2<sup>nd</sup> edition, Sage, Thousand Oaks, CA.
- Rounds, J. 2004, 'Strategies for the Curiosity-Driven Museum Visitor', *Curator*, vol. 47, no. 4, pp. 389-412.
- Rounds, J. 2006, 'Doing Identity Work in Museums', *Curator*, vol. 49, no. 2, pp. 133-150.
- Russell, J.A. & Mehrabian, A. 1977, 'Evidence for a Three-Factor Theory of Emotions', *Journal of Research in Personality*, vol. 11, pp. 273-294.
- Russell, J.A. 2003, 'Core affect and the construction of emotion', *Psychological Review*, vol. 110, pp. 145-172.

- Ryan, R.M., Frederick, C.M., Lepes, D. Rubio, N. & Sheldon, K. 1997, 'Intrinsic motivation and exercise adherence', *International Journal of Sports Psychology*, vol. 28, pp. 335-354.
- Sampson, H. 2004, 'Navigating the waves: The usefulness of a pilot in qualitative research', *Qualitative Research*, vol. 4, no. 3, pp. 383-402.
- Sarbin, T.J. 1998, *Believed-In Imaginings*, American Psychological Association, Washington, DC.
- Sartre, J.P. 1939/1962, *Sketch for a Theory of the Emotions*, Methuen, London.
- Sartre, J.P. 1940, *The Psychology of the Imagination*, Routledge, London.
- Sartre, J.P. 1957, *Transcendence of the Ego*, Noon-day Press, New York.
- Schachter, S. & Singer, J. 1962, 'Cognitive, social and physiological determinants of emotional state', *Psychological Review*, vol. 63, pp. 379-399.
- Schatzman, L. & Strauss, A. 1973, *Field Research: Strategies for a natural sociology*, Prentice Hall, Englewood Cliffs, NJ.
- Scheff, T.J. 1997, *Emotion, the social bond and human reality*, Cambridge Press, Boston.
- Scherer, K.R., Wallbott, H.G. & Summerfield, A.B. 1986, *Experiencing Emotion: A crosscultural study*, Cambridge University Press, Cambridge, MA.
- Schiefele, U. 1999, 'Interest and learning from text', *Scientific Studies of Reading*, vol. 3, pp. 257-279.
- Schiefele, U., Krapp, A., & Winteler, A. 1992, 'Interest as a predictor of academic achievement: A meta-analysis of research' in K. A. Renninger, S. Hidi, & A. Krapp (eds.), *The role of interest in learning and development*, Erlbaum, Hillsdale, NJ, pp. 183-211.
- Schlenker, B.R. 1984, 'Identities, Identification, and Relationships', in V. Derlaga (ed.), *Communication, Intimacy and Close Relationships*, Academic Press, New York, pp. 71-104.
- Schutz, A. 1964, *Collected Papers, Vol. 2: Studies in social theory*, A. Brodersen (ed.), Martinus Nijhoff, The Hague.
- Schutz, A. 1973, *Collected Papers, Vol. 2: Studies in social theory*, Martinus Nijhoff, The Hague.
- Seager, W.E. 2002, 'Emotional Introspection', *Consciousness and Cognition*, vol. 11, no. 4, pp. 666-687.
- Seamon, D. 1982, 'The phenomenological contribution to environmental psychology', *Journal of Environmental Psychology*, vol. 2, pp. 119-140.

- Senge, P.M. 1992, *The Fifth Discipline: The Art and Practice of the Learning Organisation*, Random House Australia, Sydney.
- Sillince, J.A. 1993, 'There is more to emotion than goal attainment', *Genetic, Social, and General Psychology Monographs*, vol. 119, no. 4, pp. 491-513.
- Silverman, L.H. 1984, in S. Hein, *Public Art: Thinking Museums Differently*, 2006, Altamira Press, Lanham, MD.
- Silverman, L.H. 1995, 'Visitor meaning-making in museums for a new age', *Curator*, vol. 38, no. 3, pp. 161-170.
- Silverman, L.H. 2002, 'Taking a Wider View of Museum Outcomes and Experiences: Theory, Research and Magic', *Madeleine Mainstore Lecture*, JEM 23, pp. 1-8.
- Silverman, L.H. 2004, 'Making meaning together: Lessons from the field of American history', in G. Anderson (ed.), *Reinventing the Museum: Historical and Contemporary Perspectives on the paradigm shift*, AltaMira Press, Walnut Creek, CA, pp. 233-242.
- Silvia, P.J. 2005, 'What is Interesting? Exploring the Appraisal Structure of Interest' *Emotion*, vol.5, no.1, pp.89-102.
- Silvia, P.J. 2006, *Exploring the Psychology of Interest*, Oxford University Press, New York.
- Silvia, P.J. 2008, 'Appraisal components and emotion traits: Examining the appraisal basis of trait curiosity', *Cognition & Emotion*, vol. 22, pp. 94-113.
- Silvia, P.J and Turner, S.A. 2006, 'Must interesting things be pleasant? A test of competing appraisal structures', *Emotion*, vol. 6, issue 4, pp. 670-674.
- Simmons, A. 2006, *The Story Factor*, Basic Books, New York.
- Simons, D.J. & Chabris, C.F. 1999, 'Gorillas in our midst: Sustained inattention blindness for dynamic events', *Perception*, vol. 28, no. 9, pp. 1059-1074.
- Skolnick, L.H. 2012, 'Beyond Narrative: designing epiphanies', in S. MacLeod, L.H. Hanks & J. Hale (eds.), *Making Museums*, Routledge, London and New York, pp. 83-94.
- Sokolowski, R. 2000, *Introduction to Phenomenology*, Cambridge University Press, Cambridge.
- Solomon, R.C. 2003, *What is an Emotion? Classic and Contemporary Readings*, Oxford University Press Inc., New York.

- Sotto, E. 1994, *When Teaching Becomes Learning: A Theory and Practice of Teaching*, Cassell, London in Hooper-Greenhill, E. (2007). *Museums and Education: Purpose, Pedagogy, Performance*, Routledge, London.
- Sousa, D. 2001, *How the Brain Learns*, Corwin Press, Thousand Oaks, CA.
- Spence, D. 1982, *Narrative Truth and Historical Truth; Naming and Interpretation in Psychoanalysis*, Norton, New York.
- Spiegelberg, H. 1982, *The Phenomenological Movement*, Martinus Nijhoff, The Hague.
- Stanislavski, A.C. 1936, *An Actor Prepares*, NY Theatre Arts Inc., New York.
- Stayman, D.M. & Aaker, D.A. 1993, 'Continues Measurement of Self Report of Emotional Responses', *Psychology & Marketing*, vol. 10, no. 3, pp. 199-214.
- Sternthal, B. & Roedder, D. 1994, (eds.) 'Measuring Emotions in the Consumption Experience', *Journal of Consumer Research*, vol. 24.
- Strydom, I. 1999, 'Emotions and adulthood', in J.A. Athanasou (ed.), *Adult Educational Psychology*, Social Sciences Press, Sydney, pp. 129-158.
- Stryker, S. & Burke, P.J. 2000, 'The past, present, and future of an identity theory', *Social Psychology Quarterly*, vol. 63, pp. 284-297 in J. Falk 2009, *Identity and the Museum Visitor Experience*, Left Coast Press, Walnut Creek, CA.
- Talboys, G. 2005, *Museum Educator's Handbook*, Ashgate Publishing, London.
- Tan, E. S. 2008, 'Entertainment Is Emotion: The Functional Architecture of the Entertainment Experience', *Media Psychology*, vol. 11, pp. 28-51.
- Tangney, J. 2003, *Handbook of Self and Identity*, The Guilford Press, London.
- Teather, L. 1998, 'A Museum is a museum is a museum...Or is it? Exploring Museology and the Web', Paper presented at Museums and the Web: An International Conference (22-25 April), Toronto, Ontario, Canada. Online: [http://www.archimuse.com/mw98/papers/teather/teather\\_paper.html](http://www.archimuse.com/mw98/papers/teather/teather_paper.html) [Accessed: 22<sup>nd</sup> September, 2008]
- Tennant, M. 1988/1997, *Psychology and Adult Learning*, Routledge, London and New York.
- Thorndike, E.L. 1935, *Adult Interests*, Macmillan, New York.
- Tilden, F. 1957/1977, *Interpreting Our Heritage*, University of North Carolina Press, Chapel Hill.
- Tinsley, H.E., & Tinsley, D.J. 1986, 'A theory of the attributes, benefits and causes of leisure experiences', *Leisure Sciences*, vol. 8, pp. 1-45.



- Tomkins, S.S. 1962, *Affect, imagery, consciousness: The positive affects*, Springer-Verlag, New York.
- Tomkins, S. S. 1979, 'Script theory: Differential magnification of affects' in H. E. Howe, Jr., & R. A. Dienstbier (eds.) *Nebraska Symposium on Motivation*, University of Nebraska Press, Lincoln, vol. 26, 201-236.
- Tomkins, S.S. 1984, 'Affect theory', in K.R. Scherer & P. Ekman (eds.), *Approaches to Emotion*, Lawrence Erlbaum, Hillsdale, NJ, pp. 163-195.
- Turner, M. 2003, 'Double-scope Stories', in D. Herman (ed.), *Narrative Theory and the Cognitive Sciences*, CSLI Publications, CA.
- Usher, R. 1993, 'Experiential learning', in D. Boud, R. Cohen & D. Walker (eds.), *Using Experience for Learning*, The Society for Research into Higher Education and Open University Press, Bristol, PA.
- van Maanen, J. 1983, *Qualitative Methodology*, Sage, London
- van Manen, M. 1990/1997, *Researching Lived Experience*, State University of New York Press, London, Ontario.
- Vella, J.K. 2008, *On Teaching and Learning*, John Wiley & Sons, New York.
- Wagensberg, J. 2006, *Cosmocaixa: The total museum between architects and museologists*, Sacyr, Sau, Barcelona.
- Watts, M. 2001, *Heidegger: A beginner's guide*, Hodder & Stoughton, London.
- Webb, R.C. 1996, 'Recent advances in the neurosciences: implications for visitor studies', *Visitor Studies: Theory, Research and Practice: Annual Visitor Studies Conference*, vol. 9, pp. 276-287, Jacksonville, AL.
- Weil, S.W. & McGill, I. 1989a, *Making Sense of Experiential Learning*, The Society for Research into Higher Education and Open University Press, Bristol, PA.
- Weil, S.W. & McGill, I. 1989b, 'A framework for making sense of experiential learning', in S. Warner, S. Weil & I. McGill (eds.), *Making Sense of Experiential Learning: Diversity in Theory and Practice*, Open University Press, Buckingham.
- Whitmont, E.C. 1969, *The Symbolic Quest: Basic Concepts of Analytical Psychology*, Princeton University Press, Princeton.
- White, H. 1987, *The Content of the Form: Narrative Discourse and Historical Representation*, John Hopkins University Press, Baltimore.
- Wilson, T.D. 1999, 'Models in information behaviour research', *Journal of Documentation*, vol. 55, no. 3, pp. 249-270.

- Worts, D. 1990, 'In search of meaning: Reflective practice and museums', *Museum Quarterly*, vol. 18, no. 4, pp. 9-20.
- Worts, D. 1993a, *The Audience Research Consortium of Toronto*, Paper presented at the Pathways to Partnership, Melbourne.
- Worts, D. 1993b, *Making Meaning in Museums: There's a lot to learn*, Paper presented at the Pathways to Partnership, Melbourne.
- Worts, D. 1996, 'Visitors Make Their Own Meaning', in G. Durbin (ed.), *Developing Museum Exhibitions for Lifelong Learning*, pp. 123-130, The Stationary Office for the Group for Education in Museums, London.
- Zajonc, R.B. 1980, 'Feeling and thinking: preferences need no inferences', *American Psychologist*, vol. 35, no. 2, pp. 151-175.