# School of Marketing Curtin Business School

## Conceptualising Personal and Historical Nostalgia

Christopher A. Marchegiani

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Doctor of Philosophy
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#### **Abstract**

The purpose of this research was to extend the knowledge on two distinct types of nostalgia; Personal and Historical. Previous empirical research has studied nostalgia only as a unified concept. Two scales were developed and validated to measure these responses independently of each other. Hypotheses were developed based on extant literature which postulated significant changes in cognitive, emotional, attitudinal, and intention responses as a result of the response type. A model incorporating these consumer reactions was extended and tested. Finally, the effects of varying intensities of the two response types were explored independently of each other.

An experimental research design was used with a sound methodology developed though previous studies. A variety of statistical techniques deemed appropriate for each step of the analysis was used. These included both qualitative and quantitative techniques including structural equation modelling and multivariate analyses.

Results show significant differences in the consumer behaviour responses examined as a result of the type of nostalgic response being elicited. The examined responses of cognition, emotions, attitudes, and intention are of high significance to academics and managers alike. In terms of comparing Personal and Historical Nostalgia to one another, Personal Nostalgia had a tendency to be more beneficial in the majority of consumer reactions. A model of these reactions was successfully extended and shown to differ between the conditions illustrating the need to explore these reactions independently. Varying levels of intensity of each specific nostalgic response type were shown to have significant effects on the examined consumer behaviour responses also. As a very general statement of the findings, it was found to be worthwhile to raise the levels of Personal or Historical Nostalgia to as high a level as possible to significantly positively alter emotions, attitudes, and intention. However, although significant cognitive changes were seen between low and mid levels of each nostalgic reaction, moving to a high level was found to have no significant impact on cognitive reactions.

The most significant contributions of the research are the development of the two specific scales independently of each other through seven studies, and substantiating

the hypothesised differences between the two responses with empirical evidence. These findings bridge many important gaps in the literature. Personal and Historical Nostalgia had previously only been conceptually discussed, with little to no empirical data, despite evidence of both types in the market place. The varying costs and benefits of evoking the two nostalgic responses, or varying levels of either, were unknown until now. This research results in several conceptual, methodological, and managerial implications especially valuable to academics, strategists, and industry policy makers. It also provides a solid foundation for numerous future studies.

Key words: Affect, Attitude, Cognition, Emotions, Historical Nostalgia, Intentions, Nostalgia, Personal Nostalgia, Scale Development

## **Statement of Original Authorship**

Declaration
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To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material that has been accepted for the award of any other degree or diploma in any university.

Christopher Marchegiani

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## Chapter 1

#### - Introduction

## 1.1 Background of Nostalgia

Nostalgia is commonly described as "a preference (general liking, positive attitude, or favourable affect) toward objects (people, places, or things) that were more common (popular, fashionable, or widely circulated) when one was younger (in early adulthood, in adolescence, in childhood, or even before birth)" (pp. 330 Holbrook and Schindler 1991). It may affect any person, regardless of their age, gender, social class, ethnicity, or other social groupings (Sedikides, Wildschut and Baden 2004). Although originally rooted in psychology, nostalgia has also been developed through sociology and marketing into what has been identified as a highly effective and persuasive marketing and advertising tactic (Naughton and Vlasic 1998). From a marketing viewpoint, it has been implicated in a variety of behavioural research contexts, including; self-concept, brand loyalty, brand meaning, the human senses, consumption preferences, literary criticism, Collective Memory, and emotions (Muehling and Sprott 2004).

Nostalgia is generally described as an emotional process (e.g. Holak and Havlena 1998; Stern 1992) rather than a cognitive memory process (Belk 1990), although it has been shown to influence the respondent's thought type and order (e.g. Muehling and Sprott 2004). Thus, both theories on the cognitive and memory processes (i.e. thought processing and retrieval) (e.g. Tulving 1972, 1984) and emotions are important theoretical underpinnings for understanding the effects of nostalgia. As shown in Muehling and Sprott (2004), there is considerable support in the advertising literature for the relationship between ad-evoked emotional responses (feelings) and a consumer's (1) formation of an attitude towards the brand (see Edell and Burke 1987; Holbrook and O'Shaughnessy 1984; Mitchell, 1986; Ray and Batra 1983), and (2) formation of an attitude towards the advertisements / expression of likeability to the advert itself (see Aaker, Stayman, and Hagerty 1986; Batra and Ray 1986; Machleit and Wilson 1988; Stayman and Aaker 1988). Thus, theories examining

attitudinal response, such as the Dual Mediation Hypothesis (DMH) (MacKenzie, Lutz and Belch 1986), are also important underpinnings for studying nostalgia. The decision-making ability for brand managers, strategists, managers and advertisers alike will be greatly enhanced by further developing the knowledge of nostalgia.

## 1.2 Research Issue / Justification and Objectives

Past studies on nostalgia have approached the construct as a 'unified' concept, although extant literature reveals that nostalgia commonly exists as two separate types. These response types are separated by the fact that nostalgia may be generated from either a personally remembered past (Personal Nostalgia: 'the way I was'), or from a time in history even before one was born (historical / communal nostalgia: 'the way it was') (Havlena and Holak 1991; Stern 1992). The previous studies on the specific costs and benefits of using nostalgia only test the majority of consumer reactions resulting from nostalgia as a 'unified' concept. Some reactions to nostalgia explored include the influence it may have on thoughts and emotions, often leading to a change in attitude towards the advert and brand, which in turn may affect purchase intention (Bagozzi, Baumgartner and Yi 1989; Muehling and Sprott 2004). However, for a variety of reasons, which will be further explored in hypotheses development in Chapter 3, there is reason to believe that the two specific and distinct types of nostalgic response (Personal and Historical) will result in different reactions in consumers. This study will compare and contrast consumer behaviour reactions resulting from the different nostalgic appeals. This is the first basis for the research.

In addition to the comparison between Personal and Historical Nostalgia, the study will explore consumer reactions to each specific nostalgic response as the level of intensity increases. As empirical research has not been conducted exploring these reactions separately, this is another major objective and contribution for this study.

In relation to the issue of distinguishing between the types of nostalgia is the fact that past nostalgic scales (e.g. Baker and Kennedy 1994; Holbrook 1993; Pascal, Sprott and Muehling 2002) have not taken into account these varying types of nostalgia. For added rigour of future studies, establishment of separate nostalgic

scales that are able to measure the two specific types independently needs to be undertaken. This need provides another research issue / objective for this study.

Finally, an existing model incorporating key consumer behaviour responses (i.e. cognition, and attitudes, and purchase intention) that are expected to differ as a result of the type of nostalgic response experienced will be extended using Structural Equation Modelling. Comparison of the model between the two response conditions will be undertaken. This will provide a model for use in further studies as well as contributing to what is already know about the concepts.

In summary, the research will perform tests under two response conditions with advertising cues evoking either Personal or Historical Nostalgia reactions. The key research question for this study would be 'How do the specific types of nostalgic reactions (Personal and Historical) differ in their effect on Consumer Behaviour'. More specifically, the objectives for the study are:

- To undertake development and validation of two scales. One to test for /
  measure Personal Nostalgia and one for Historical Nostalgia. This will
  enable the reactions to be explored independently from each other.
- 2. To discover differences in the effect of the two types of nostalgic responses on **cognition**. This includes the respondent's number of (total thoughts, ratio of thought and similar), nature (positive or negative), and type (nostalgic, ad-related etc) of thoughts in each response group.
- 3. To examine and compare the **emotional reactions** of the respondents under the two types of nostalgic response.
- 4. To discover and compare the effect of each nostalgic response type on the viewer's attitude towards an advertisement (Aad), attitude towards brand (Ab), and intentions to purchase the brand (Ib).
- 5. To **extend the Dual Mediation Hypothesis model** of consumer responses under the two nostalgic response conditions. Within this, to examine the **relationships** (if any) **between the explored reactions** (e.g. pathway between Aad and Ab, and so on).

6. To compare the cognitive, emotional, attitudinal and intention reactions of respondents at **different levels of intensity** within the Personal and Historical Nostalgia reaction segments. This objective will be explored as a research question as the need to explore the two types of nostalgic responses internally as individual reactions need only occur if the two types are indeed shown to be different.

#### 1.3 Delimitations and Scope

In the interest of achieving a homogenous sample, subjects are limited to being aged between 18 and 26 years of age. Nostalgia is said to concern all people, regardless of their age, gender, social class, ethnicity, or other social groupings (Greenberg, Koole and Pyszczynski 2004), and this age group is seen to be targeted in the market place with both types of nostalgic appeals. Additionally, limiting respondents to the same 'life station' (being in this case students) may reduce any changes due to this factor rather than the type of nostalgic reaction. Student sampling has been proposed as being representative of general consumers (DelVecchio 2000) and the use of students in this study is beneficial as they provided a relatively homogenous sample for the experimental study. It has also been stated that "...students can serve as surrogates in modelling attitude-behaviour relationships, scale development and in cases where the relative ordering of attitude objects is the focal point of research" Yavas (1994, p. 41). Furthermore, there will be less chance of data being corrupted by other influences such as consumers past historical experiences and differences in brand / product recognition / familiarity and the sample is reflective of the target market of consumers that would be of interest to brand managers in products suited to both personal and historical nostalgic appeals (as per DelVecchio 2000). Students have also been used in past studies on nostalgia (Muehling and Sprott 2004). Respondents will be subject to only one advert containing either Personal or Historical nostalgic cues. No prior knowledge as to the purpose of the study will be allowed. Finally, the type and brand of product, in this case the camera company Kodak, will be consistent between conditions. Muehling and Sprott (2004) have successfully used Kodak in previous nostalgic studies. During the scale development stage (Chapter 4) there will be a change of brand to

assist in ensuring scale generalisability. Of course, this may limit the findings to product categories of similar levels of involvement and future research should further explore the findings of the study under different conditions (explored at length in Chapter 7).

## 1.4 Definitions and Key Underpinnings

#### 1.4.1 Definitions

For the purpose of this study, the following definitions are adopted.

**Nostalgia**: a "preference (general liking, positive attitude, or favourable affect) toward objects (people, places, or things) that were more common (popular, fashionable, or widely circulated) when one was younger (in early adulthood, in adolescence, in childhood, or even before birth)" (pp. 330 Holbrook and Schindler 1991). In a line, it is described as an individual's 'longing for the past, and yearning for yesterday' (Holbrook 1993).

**Personal Nostalgia**: reactions generated from a personally remembered past (Personal Nostalgia: 'the way I was') (Havlena and Holak 1991; Stern 1992).

**Historical Nostalgia**: reactions generated from a time in history that the respondent did not experience directly, even a time before they were born (historical / communal nostalgia: 'the way it was'). (Havlena and Holak 1991; Stern 1992).

Cognition: in this study, thoughts will be provided in written format directly from the respondents. The expected nature of a 'nostalgic thought' is generally considered to be positive, however, negative nostalgia has also been shown to exist, as feelings of nostalgia are often described a 'bittersweet' emotion (Baker and Kennedy 1994; Havlena and Holak 1991; Hirsch 1992; Holak and Havlena 1992). As such, both positive and negative thoughts are utilised. Thoughts will be identified as belonging to one of five exclusive categories, identified by two judges via a thought coding process (e.g. Baumgartner, Sujan and Bettman 1992; Muehling and Sprott 2004; Sujan, Bettman and Baumgartner 1993). This technique is discussed at length later at Section 5.5.1.

Emotions: according to Kleinginna and Kleinginna (1981, p. 355) emotions are "...a complex set of interactions among subjective and objective factors, mediated by neural / hormonal systems, which can: (a) give rise to affective experiences such as feelings of arousal, pleasure / displeasure; (b) generate cognitive processes such as emotionally relevant perceptual effects, appraisals, labeling processes; (c) activate widespread physiological adjustments to the arousing conditions; and (d) lead to behavior that is often, but not always, expressive, goal directed, and adaptive". A more succinct definition is provided by Richins (1997) of an emotion being a 'valenced affective reaction to perceptions of situations'. The process for capturing these emotions is discussed at Section 5.5.2.

Attitude: is defined as 'the psychological tendency of a person to respond, or behave, in a consistently positive or negative manner with respect to a stimulus as a result of their attitude towards the stimulus' (Page and Luding 2003). As referred to previously, the affective responses of the emotional responses generated by adverts (such as would be the case with nostalgic cues) have a relation to (1) the formation of an attitude towards the brand (see Edell and Burke 1987; Holbrook and O'Shaughnessy 1984; Mitchell 1986; Ray and Batra 1983), and (2) the formation of an attitude towards the advertisements / expression of likeability to the advert itself (see Aaker, Stayman, and Hagerty 1986; Batra and Ray 1986; Machleit and Wilson 1988; Stayman and Aaker 1988). This is further discussed at Section 5.5.3.

**Purchase Intention**: Schlosser (2003) defines purchase intentions as people's 'predictions about their own behaviour'. Anderson (1983) proposes that people's expectation about their own behavior depends partially on their ability to imagine themselves performing the behavior. Schlosser (2003, p. 187) also discusses how "...the easier and more vividly individuals can envision a scenario, the higher their likelihood estimates that the scenario will occur (Bone and Ellen 1992; Kahneman and Tversky 1982; Sherman et al. 1985)." This research measures purchase intention on commonly used scales (discussed at Section 5.5.4).

#### 1.4.2 Key Underpinnings

#### 1.4.2.1 Autobiographical and Collective Memory

The major underpinnings in the hypothesised differences between the two types of nostalgia are as a result of the expected cognitive reactions in respondents. The work on Memory Systems (Tulving 1972, 1984) is of importance, especially the theory of Autobiographical Memory (Brewer 1986; Neisser 1988), and Collective Memory (Halbwachs 1950, 1992).

Autobiographical Memory is, in a most basic definition, memory for events and issues relating to 'the self' (Rubin 1986). They are considered to be highly complex in nature (Conway and Pleydell-Pearce 2000), and although they are accompanied by the strong belief of the respondent that they are veridical, this is not always accurate (Rubin 1986; Sheen, Kemp, and Rubin 2001). Conway and Pleydell-Pearce (2000) discuss how Autobiographical Memory has been explored by a variety of researchers including neuropsychologists (e.g. Conway and Fthenaki 2000), personality theorists (e.g. Bakermans-Kranenburg and Ijzendoorn 1993; Woike 1995), development psychologists (e.g. Fivush 1993; Howe and Courage 1997), and cognitive psychologists (e.g. Conway and Rubin 1993; Rubin, Rahhal, and Poon 1998). Autobiographical Memory's connection to emotions (e.g. Levine, Stein, and Liwang 1999), and culture and memory (e.g. Han, Leichtman, and Wang 1998) has been explored, as stated by Conway and Pleydell-Pearce (2000).

Autobiographical Memory has been likened to personal (Brewer and Pani 1983) or episodic (Tulving 1972, 1984) memory, and often occurs when the memory is in 'retrieval mode' (Moscovitch 1995; Schacter, Norman, and Koustall 1998; Tulving 1983) or in terms of 'recollection or reliving' (Rubin, Schrauf, and Greenberg 2003). This 'mode' is of importance in this research as Personal Nostalgia, one of the two nostalgic types explored in the studies, is expected to draw upon Autobiographical Memory as it endeavours to encourage respondents to associate the cues to their own past. Although it is noted that nostalgia is not considered always 'accurate' autobiographical in nature as nostalgia is often filtered of negative thoughts (Belk 1990; Davis 1979; Stern 1992). Tulving's (1972) 'Multiple Memory System'

consists of procedural memory (how to do something), episodic memory (such as personally remembered of experienced events), and semantic memory (world-knowledge or non-episodic memory). Autobiographical Memory has been discussed as a 'subset' of episodic memory or in fact a memory system of its own accord (Thompson, Skowronski, Larsen, and Betz 1996) and within itself has been further defined into areas such as 'flashbulb memories' (Brown and Kulik 1977), and personal memories (Rubin 1986). It has also been divided into 'Lifetime Periods, General Events, and Even-specific Knowledge' (Conway and Pleydell-Pearce 2000).

As briefly discussed, Personal Nostalgia and Autobiographical Memory are expected to be closely associated, while Historical Nostalgia will not draw upon this same memory mode. Instead a more 'semantic' memory mode or 'Collective Memory' (e.g. Halbwachs 1950, 1992) reaction will be experienced.

Collective Memory is explained as being shared, passed on, and even constructed by the group, or modern society. Collective Memory has also received attention by social scientists as way of measurement or comprehension of cultural, political, and historical events, and can provide a 'backdrop' or context of people's identity (e.g. Baumeister 1986; Kahana and Kahana 2006; Nord 1998; Pennebaker, Paez, and Rime 1997). They can also assist in creating common values among citizens (Oisel 1999) in the guise of a 'collective consciousness' (Durkheim, 1964). More recently, Collective Memory's place in journalism has been explored (Zelizer 2008). Pennebaker, Paez, and Rime (1997) discuss Collective Memory in two ways. Firstly they are discussed as 'historic memories' that might be experienced by all members of a group (and are thus real) such as a natural disaster, birth, or a death. Alternatively, they say that shared memories may be 'not memories at all', but are rather presumed or concocted memories of history, for example, "...in the United State's, citizens 'remember' how they single-handedly defeated the Germans in World War II" and that it is not surprising that other nation will remember it differently (p. vii). Collective memories are often discussed as 'landmarks' for time estimation, even in connection to a personal memory (Thompson, Skowronski, Larsen, and Betz 1996).

An important note of collective memories is that the respondent could in fact experience the time under question. However, in terms of this research, which is concerned with Historical Nostalgia, the key issue of Collective Memory of importance is it's ability to exist without direct experience by the respondent; that is, that is could be passed on by others or constructed by the respondent using the various bits of information they have gathered about a period. Collective Memory can persist for generations beyond those that had any direct experience to the occurrence (Pennebaker, Paez, and Rime 1997). This is the expected reaction of those consumers experiencing Historical Nostalgia, as opposed to Personal. While Personal Nostalgic responses use the previously discussed 'autobiographical' reaction, Historical Nostalgic responses will not. As such, the hypothesised differences between the two nostalgic types is not just that Historical Nostalgia may draw on Collective Memory, but that they certainly wont draw up on autobiographical to the same extent as Personal Nostalgia response consumers do.

These theories explain the expected differences in consumer behaviour as a result of the type of nostalgic reactions being experienced and are explored in greater detail as they relate to the hypotheses and objective of this study at Section 3.2.

#### 1.4.2.2 Scale Development and Validation

The key literature and theories explored in the development and validation of the two nostalgic scales are the work by Churchill (1979), DeVellis (1991, 2003), Li, Edwards and Lee (2002), Nunnally (1978), Oh (2005), Spector (1992), and, Wells, Leavitt and McConville (1971). These studies guide the scale process and are discussed in more detail in Chapter 4 on scale development.

#### 1.4.2.3 Dual Mediation Hypothesis

The major theoretical underpinning for the **model** in this study is the **Dual Mediation Hypothesis** (DMH) (MacKenzie, Lutz and Belch 1986). This model illustrates the relationship from initial exposure leading to cognition, through to attitudes and purchase intentions. Edell and Burke's (1987) 'conceptual model of the role of feelings in advertising', helps to also illustrate this. The underpinnings for the

study are explained in further detail in the subsequent chapters on hypothesis development and underpinnings.

#### 1.4.2.4 Other Underpinnings

Other underpinnings include Multiattribute Attitude models (e.g. Mitchell and Olson 1981), Elaboration Likelihood Model and Central and Peripheral Processing (Petty and Cacioppo 1981), and the Theory of Reasoned Action (Fishbein and Ajzen 1975).

#### 1.5 Methodology

As per previous studies (e.g. Holbrook 1993; Muehling and Sprott 2004; Pascal, Sprott and Muehling 2002) data is captured using self administered surveys consisting of thought elicitation collection, a scale on emotions, scales measuring attitudes and intentions, a manipulation check, and simple demographic questions. The research will be undertaken in two phases. Phase One develops and validates two scales to measure the existence and intensity of either Personal or Historical nostalgia as separate types of nostalgia. These scales will be used as a manipulation check item in Phase Two of the study. Phase Two is an empirical study with respondents exposed to one of two nostalgic conditions, and then completing the developed survey instruments collecting their cognitive, emotional, attitudinal, and intention reactions. In addition they will perform the manipulation check (developed in Phase One) and provide demographic information. With the exception of the scales developed in Phase One of this research, survey items will be derived from past studies (e.g. Baker and Kennedy 1994; Holbrook 1993; 1994, Holbrook and Schindler 1994; Muehling and Sprott 2004; Pascal, Sprott and Muehling 2002). Structural Equation Modelling (SEM) will be used for model analysis with use of ANOVA's, T-tests, and exploratory and confirmatory factor analysis being the key statistical techniques utilized in the study. The method and support for the chosen instruments is discussed at length in Chapter 5.

## 1.6 Expected Results

As discussed, an empirical research void exists in the lack of knowledge in comparing the two types of nostalgia (as opposed to its 'unified' form). The surrounding issues and implications of this are identified as deficient areas of the advertising literature (Muehling and Sprott 2004; Stern 1992). A sound research methodology, a number of relevant scales / measures and appropriate research techniques will be adopted and developed to test the hypotheses and research questions. Findings of both theoretical and practical significance are expected to be uncovered. Phase One will develop and validate the 'Personal Nostalgia Scale' and the 'Historical Nostalgia Scale' through seven studies. Phase Two: Test One results expect to show that respondents experience significant differences in cognitive, emotional, attitudinal, and intention reactions dependent on the type of nostalgia being elicited by the advertisement. Results from Phase Two: Test Two and Three are expected to show that there are significant changes in these consumer behaviour reactions dependent on the level of each specific nostalgic response experienced.

## 1.7 Significance of Study

The key research question of the work is to examine how the two identified types of nostalgia differ in their effects on consumer behaviour. As an overview, success in showing the significant differing effects of these two nostalgic response types will indicate the need for a shift in the paradigm of nostalgic research and use in the market place. This research will have conceptual, methodological, and managerial significance in the following ways.

Phase One of the study will develop two scales; the Personal Nostalgia Scale and the Historical Nostalgia Scale. Successful development and validation of these scales alone will prove to be significant in a number of ways. Firstly, the method in which the scales are constructed will follow and confirm existing procedures of scale development under a nostalgic appeal context. Achieving discriminant validity of the two scales will in itself assist in showing ability to differentiate between the two types of nostalgic response. This conceptual contribution will provide additional support for the hypothesised differences between the two nostalgic types. These

scales will also be of significance, as no other scales currently exists that are able to distinguish or measure the existence or levels of Personal or Historical Nostalgia independently of each other.

Availability of these scales will be of assistance in a number of ways. For example, these scales will act as a manipulation check in future studies of nostalgia which intended to examine the differing effects of the reactions in a number of consumer behaviour contexts. Phase Two of this study, for example, will utilise the scales in order to develop two nostalgic groups indicated as experiencing either Personal or Historical Nostalgia to allow comparison in other consumer behaviour reactions to take place. These scales will thus also provide conceptual assistance as future studies may utilize them in order to discover a range of reactions that are altered as a result of the type of nostalgic response felt by consumers. In terms of direct managerial significance, these scale will provide marketing manager with the tools needed to quickly and accurately test which form of nostalgia (if any) is being experienced by respondents to their advert or brand. This, along with the information obtained through the second half (Phase Two) of this research, will ensure significantly more accurate forecasts of consumer response.

Phase Two will examine Personal and Historical Nostalgic responses affect both comparatively and individually in a number of ways. Respondent's nostalgic reaction type due to nostalgic cue laden advertisements will be examined by the scale developed in Phase One, along with their cognitive, emotional, attitudinal, and purchase intent reactions. Conceptually, the two types of nostalgic responses have not been empirically comparatively explored before. This research will provide knowledge on the differences between the two nostalgic types as they affect these highly important consumer behaviour responses. These responses are of significant importance due to their consequence on various practical implications. Nostalgic response is a commonly used advertising appeal that can be, to some degree, influenced or controlled by the various identified nostalgic cues. By understanding how the two types of nostalgia influence these responses, again the ability to anticipate consumer response, and perhaps capacity to persuade consumers, is greatly increase by this research. Successful comparison of the two nostalgic types also has

methodological significance, as the research will provide measures, structures, and procedures for future research to further the understanding of nostalgia.

This conceptual and methodological significance is achieved not only though comparison of cognitive, emotional, attitudinal, and intent reactions, but also though the extension of the Dual Mediation Hypothesis model using Structural Equation Modelling. Finally, the research is also significant through not only the comparative analysis of the nostalgic types, but also as it will explore different levels of intensity of each nostalgic response independently of each other. Again, as no previous research has empirically dimensionalised the two nostalgic types, this was not previously possible to truly achieve. These results will provide knowledge of the need (or lack thereof) to reach various levels of each nostalgic response type as indicated by the significant (or non-significant) effect on various cognitive reactions, types of emotions, attitudinal reactions and purchase intentions. This is of benefit to those in the market place, as well as future researchers wishing to further the knowledge of nostalgia in a range of disciplines.

The research process undertaken to achieve these objectives and significant contributions is best realised by viewing Figure 1-1. This shows the process and related chapters for the research undertaken.

**Literature Review** ► Chpt 2 Chpt 3 Phase 1 Phase 2 Study 1 Study 2 **Main Study Development** Study 3 of scales to Development of a measure Study 4 **Conceptual Model** Personal and Historical Study 5 Nostalgia **Development of** Study 6 **Hypotheses** Study 7 Method and study Chpt 5 ◀ -Personal Y Chpt 4 development Manipulation -Historical Checks **Data Collection** (Developed in Observation/Survey Phase One) **Data Analysis and Discussion** Chpt 6 Conclusion: Chpt 7 ◀ Implications, limitations and future directions

Figure 1-1: A Schematic Overview of the Research Process

## 1.8 Conclusion of Chapter One

This work will suggest a move away from the 'unified' view and study of previous nostalgic work if rigour is desired. As seen in Figure 1-1, the dissertation is structured as follows; Chapter 2 contains the literature review exploring nostalgia and its use in marketing. Next, the theoretical framework and development of the hypotheses for this study is explained in Chapter 3. Chapter 4 deals with the scale development process undertaken (Phase One of the research). Methodology of the main study (Phase Two) follows in Chapter 5. Chapter 6 contains Phase Two's indepth results of the data analysis and discussion. Finally, Chapter 7 concludes the study with implications, discussion on the findings, limitation and suggestions for future research.

## **Chapter 2**

#### - Literature Review

This chapter first examines nostalgia, including the types and variables that can affect the concept. It then moves to nostalgia's place in advertising and examines 'how advertising works', from the initial exposure to cues, through to consumer behaviour / response. Reviews of past studies as related to the variables that will be tested in the study are included. This supplies a framework and understanding for the paper. Nostalgia is examined within this advertising framework and the scope of the review is narrowed to nostalgia in advertising and its affect on consumer behaviour. Gaps in the literature are identified throughout the review process, although the chapter concludes with key gaps, including those relating directly to this study.

#### 2.1 Nostalgia

#### 2.1.1 Defining Nostalgia

Nostalgia can be traced back to the mid-seventeenth century (i.e. Hofer's "Medical Dissertation on Nostalgia" a psychological explanation for "homesickness", 1688). Nostalgia's roots are in psychology, as it deals with the thoughts and emotions generated by specific stimuli. Since this time, it has been developed though psychology, sociology and marketing into the tool, which this chapter reviews.

At present, it is commonly described as an individual's 'longing for the past, and yearning for yesterday' (Holbrook 1993). Psychologists Greenberg, Koole, and Pyszczynski, (2004) believe that nostalgia concerns all persons, 'regardless of age, gender, social class, ethnicity, or other social groupings'. Consumer behaviour research focuses on nostalgia as a 'consumer response' (Havlena and Holak 1991; Holbrook and Schindler 1989) as much of consumer behaviour is predicted upon prior research in psychology (Havlena and Holbrook 1991) and sociology (Davis 1979). The definition of nostalgia has been extended also to include two specific types: Personal and Historical.

#### 2.1.2 Personal and Historical Nostalgia

A number of academics have discussed the existence of different 'types' of nostalgia, most commonly in the forms of 'Personal' or 'Historical' nostalgia (e.g. Baker and Kennedy 1994; Batcho 1995; Havlena and Holak 1991; Hirsch 1992; Holak and Havlena 1992; Stern 1992). 'Personal Nostalgia' is commonly referenced as responses generated from a personally remembered past ('the way *I* was'), while 'Historical Nostalgia' are responses generated from a time in history that the respondent did not experience directly, even a time before they were born ('the way *it* was') (Havlena and Holak 1991; Stern 1992).

Despite the two types of nostalgia being identified, no in-depth empirical studies have examined these types comparatively to each other. The common definition of nostalgia as being from a time 'when one was younger (in early adulthood, in adolescence, in childhood, or even before birth)' (Holbrook and Schindler 1991) is a good example of the 'unified' view of nostalgia with no distinction made between personal and non-personal times (i.e. 'before birth') that is most commonly utilized in studies. This definition is accurate in terms of this unified view, but evidence suggests that marketers may wish to be wary of testing nostalgic appeals in this way. Stern's (1992) work draws some conclusions as to the differences in the two nostalgic types in providing differences in the types of characters, values, settings and similar in each nostalgic type. Some specific cues for evoking the two different types are also examined, such as Personal Nostalgia being elicited from cues such as familiarity, lifelike incidents and ordinary people, while Historical Nostalgia uses historical incidents, romance, aspirational / idealised characters, and sometimes exaggerated tones. In comparing these nostalgic types, Personal Nostalgia is expected to use 'autobiographical / real' memories (Brewer 1986; Neisser 1988) while Historical Nostalgia will use more 'collective / imaginary' (Halbwachs 1950; 1992) memory processes. This change in cognitive responses and associated emotional reactions are expected to result in a change in other consumer behaviour responses such as attitudes, intentions, and more. This issue is discussed at length in Section 3.2 in the hypotheses development chapter (3).

#### 2.1.3 Identifying Nostalgia – Scales

If personal and Historical Nostalgia are to be subject to research independently or comparatively to each other, it must be clear when consumers are not only being exposed to cues of either a personal or historical nature, but also that they are actually experiencing the intended form of nostalgia. In order to do this, scales that measure each of these specific responses independently of each other is needed. Scales of this nature would also provide existence and measurement of the intensity of these specific reactions, allowing those experiencing Low Personal Nostalgia (for example) to be compared with those experiencing High Personal Nostalgia, or Mid levels of Historical Nostalgia, and so on. This would allow for a more robust understanding and better prediction of consumer behaviour reactions in consumers.

This is currently a gap in the knowledge as to date no scales that measure the two types of nostalgia independently exist. Instead, only scales that treat nostalgia as a 'unified' concept or that measure issues associated with nostalgia have been developed. For example, scales such as the 8-item 'Nostalgic proneness scale' (Holbrook 1993) is related to both Personal and Historical Nostalgia in the sense that it was developed as a measure of nostalgic proneness rather than nostalgic existence and has been also used in reference to 'attitude towards the past' (ATP) (Holbrook and Schindler, 1994). The 12-item 'Experience Scale' (Taylor and Konrad 1980) has also been used to measure ATP. Likewise Baker and Kennedy's (1994) 'NostScale' is designed to establish the distinction between nostalgic feelings associated with an advertisement and positive affect for an advertisement, and Pascal, Sprott and Muehling's (2002) 10-item scale of 'evoked nostalgia' seems to contain both personal and historical related items, indicating its appropriateness for measuring nostalgia, but as with others, inability to distinguish between the two specific nostalgic reactions. These scales are all well suited and reliable for measuring their intended reaction / response, although for the purpose of dividing the nostalgic appeal, are not functional. As such, reliable, validated scales designed for measuring Personal and Historical Nostalgia independently of each other is a worthwhile future research direction to pursue if we intend to better understand these advertising appeals.

#### 2.1.4 Variables Affecting Nostalgia

There seems to be a lack of conclusive information on how nostalgic reactions may differ between consumers, as nostalgia can affect people in different ways depending on a range of variables. It has been found that some individuals may be more prone to nostalgic impulses, depending on a number of variables (Holbrook 1993). Regarding previous studies on nostalgia it should be noted that, as with virtually any study of consumer behaviour, generalisability is a concerning limitation as different results may be obtained with different products, different respondents from a varying socioeconomic strata, different cultures and so on (Holbrook and Schindler 1994). The following information reviews the literature on variables affecting nostalgia. These include; age, gender, country of origin, 'life station / proneness, products types, prior brand familiarity and experience, and 'attitude towards past'. It is recommend that the often unavoidable, and seemingly consistent, limitation of generalisability should be taken into account when interpreting the following information.

#### 2.1.4.1 Age

Regarding the variable of age, research by Holbrook and Schindler (1989, 1991, 1994, 1996) suggest that further research is still needed on its moderating effects. Muehling and Sprott (2004) claim that their follow-up analyses regarding the potential moderating effects of age and gender on individuals' brand and ad attitudes (when exposed to nostalgic print advertisements) yielded no significant interaction results. However, it should be taken into account that the age sample of their one hundred fifty-nine subjects ranged in age from 18 to 35, with a mean of 21.4, not a broad age group to measure nostalgia. In light of this and the consecutive studies further research is still warranted with a broader range of ages sampled to test whether nostalgia is a relative concept that varies depending on the age of research participants, as discussed by previous academics (e.g. Muehling and Sprott 2004).

In further support of this, it has been shown that consumers prefer products that existed at the time when they were in their early to mid-twenties (Holbrook and Schindler 1989, 1991, 1994, 1996). Holak and Havlena (1992) and Holbrook (1993)

supported this but added that 'Nostalgia-proneness' is believed to peak as people begin to move into middle age and again as they reach "retirement age". Thus, marketers should consider this when using the results of such studies. This is especially the case when performing comparative studies, as the age of the consumer may dramatically change the reaction even in relation to the products depicted in the advertisements, creating bias results. It has been suggested that knowledge about specific age groups should prove beneficial for marketers in targeting segments of similarly aged consumers by referring to items / events these consumers personally experienced when they were at the more nostalgic prone stage (Muehling and Sprott 2004).

#### 2.1.4.2 Gender

Concerning the gender of the consumers as a variable effecting nostalgia, research by Havlena and Holak (1991) suggested that men are more prone to nostalgia. However, in direct conflict with this finding is Holbrook's paper (1993) finding women are marginally more nostalgic prone (but not significantly). And again, more recent research have found that men, but not women, show evidence of nostalgic attachment to the styles experienced in their youth (that is, their preferences peaked for products that were popular when they were young) (Schindler and Holbrook 2003). In terms of specific products we would also expect to see some changes dependent on gender (for example, a man's connection to his first car may be expected to be inherently more nostalgic than a women's). It is not surprising that studies (e.g. Muehling and Sprott 2004) still recommend that further research be conducted into the affect (if any) that the gender of the consumer plays in relation to nostalgic thoughts and / or emotions. The implications in closing this gap for marketers would include whether or not nostalgic based campaigns are used for items targeting specific genders.

#### 2.1.4.3 'Country of origin' / place of residence

Although it has been stated that nostalgia concerns all persons, regardless of ethnicity (Greenberg, Koole and Pyszczynski 2004), it has been noted that there may be cross-cultural differences in the intensity and nature of nostalgic experiences

(Holbrook 1994). Further research into the effect (if any) of the subject/consumers country of origin is also warranted to examine any changes in nostalgic based thoughts, emotions or actions, to test if the current and future findings on nostalgia are relevant across cultural boundaries.

Future studies may also wish to examine the gap in the knowledge in regards to if any bias exists when the subject is away from his / her 'home' (be it out of a country or even just away from their home town). For example, nostalgic thoughts may be significantly heightened in someone who has not been to their home country / town in 'x' number of years. Knowledge of this should allow researchers to take any of this possible bias into account in consecutive studies. This information may also assist marketers who are targeting particular markets (such as beer companies may do to Australian 'ex-pats' in England) in the benefits / costs of nostalgic advertisements and has an application to using nostalgic advertisements in the 'global market place' (Holak and Havlena 1998). Using nostalgic influence to assist travel agencies to target certain ethnic groups to travel tours to their 'Homeland' has also been suggested (Holbrook and Schindler 2003).

#### 2.1.4.4 Life stations and nostalgia proneness

Davis's (1979) contends that nostalgia is especially salient as one passes through various stations in life. It should be noted that these 'stations' are not necessarily in relations to one's age, but rather the perception on 'where they're at in life' such as school or retirement. This issue raises the question of the limitations in information derived from many past studies that only used a sample at a particular station in life (for example, only undergraduate students) in regards to generalisability. If the 'station' variable is particularly manipulative, previous findings may be limited to only that particular station and can affect consecutive studies that have been implemented since that time. The significance for marketers is that as consumers may have significantly heightened nostalgic effects depending on the 'station' of their life (leading to various costs or benefits) they may be more susceptible to nostalgic 'persuasion'. As this is the case, marketers may wish to target these 'stationed' people directly with nostalgic based advertisements to achieve the

transferred effects (these 'transferred effects' discussed in detail in a subsequent chapter). The issue of people more susceptible to nostalgic has been termed 'nostalgic proneness' (Holbrook 1993) and is related to consumer involvement (Muehling, Laczniak, and Andrews 1993). 'Nostalgia-proneness' is believed to peak as people begin to move into middle age and again as they reach "retirement age" (Holak and Havlena 1992; Holbrook 1993). Muehling and Sprott (2004) wrote that increased research is warranted on the processes by which these items moderate nostalgia influences, consumer brand perceptions, and behaviours.

# 2.1.4.5 Product type

The use of nostalgia may also work differently with varying products. According to Stern (1992), Personal Nostalgia appeals are best for products that are socially inconspicuous, but provide the benefit of comfort (associated with "cocooning" or "nesting") such as candy or hot drinks. Personal Nostalgia appeals also tend to be towards realistic portrayals and the actors represent ordinary people. Historical Nostalgia appeals however, are most suitable for socially visible products that can communicate the owner's social self-concept (e.g. cars, clothes and jewellery). Knowledge of this may affect marketer's choice in using nostalgia for particular products.

Also with regards to products, some are said to have 'inherent nostalgic components' and academics have recommended that future research may wish to replicate the past studies using different product contexts (i.e. using products with / without an inherent nostalgic component) (Muehling and Sprott 2004). Finally in this area, whether or not the product is of high or low involvement is also believed to have an affect on nostalgia (Park and Young 1984). Again, this knowledge would be significant as it may affect marketer's decisions to use nostalgia appeals for their particular product.

#### 2.1.4.6 'Prior brand evaluation' and familiarity

Prior brand evaluation refers to the existing attitudes / views / perceptions of the product or brand that may affect the nostalgic reactions to the advertisement.

Research demonstrates that consumers can form their preferences on the basis of elements such as liking, feelings, and emotions induced by the advertisement, or familiarity triggered by mere exposure to the advert (see Batra and Ray 1986; Gardner 1985; Zajonc 1980). Cacioppo and Petty (1979) found that a primary determinant of the evaluation directionality of information processing is the individual's prior evaluation of the attitude object. Prior brand evaluation as a moderating effect on consumer response when exposed to humorous adverts (a feeling not unlike nostalgia due to its positive appeal) has been discovered a past study (Chattopadhyay and Basu 1990). This issue also is discussed later in this chapter as the 'experience' dimension on the advertising framework in Figure 2-1.

Also in relation to the particular brands used in nostalgic advertising, brand familiarity has been found to moderate the relationships between the 'effects of attitude towards the advertisement' and brand attitude after advertisement exposure (Machleit and Wilson 1988). Muchling and Sprott (2004) have recommended that future research may wish to perform studies with a fictitious (as opposed to existing) brand to assist in discovering more about this issue. The effects on nostalgia are yet to be conclusive (thus a gap in the literature) and this knowledge, if obtained, will be useful to marketers in deciding if the use of nostalgia will be acceptable for their campaigns.

#### 2.1.4.7 Attitude towards the past

Holbrook and Schindler (1994) explored how a consumer's 'attitude towards the past' (ATP) exerted a moderating effect on the age-related preference peak (referring to the past age of the consumer that he / she prefers products / images / music, and so on, from). The moderating effect of ATP on other aspects of nostalgia could also be explored. This would allow marketers to better understand the effect of ATP and thus make better-informed decisions when deciding if to use nostalgia.

From the knowledge of what nostalgia entails, this review now will begin to establish nostalgia's place in the advertising framework.

## 2.2 Nostalgia in Advertising

## 2.2.1 Advertising Defined

Advertising is defined as 'paid, non-personal communication from an identified sponsor using mass media to persuade or influence an audience' (Wells, et al. 2003). A number of different 'vehicles' or channels can be for advertisements. These include print ads (magazines and newspapers), television, out-door / transit, radio / broadcast and Internet advertising. Despite companies having their own unique goals, three basic functions of advertising are identified by Wells, et al. (2003) being 1) to provide product and brand information, 2) provide incentive to take action, and 3) provide reminders and reinforcement. The overall aim of advertising as discussed by these authors is for consumers to (after viewing of the advertisement) experience learning (cognitive), persuasion (emotion), and / or behaviour (action). The 'action', such as making a sale, is commonly accepted as the ultimate goal. To reach this goal there first must be an understanding of 'how advertising works'.

## 2.2.2 Nostalgia and How Advertising Works

Previous studies have developed a framework for studying 'how advertising works' (Vakratsas and Ambler 1999). Their study reviewed the knowledge of academics in a review of over 250 journal articles and books. The model developed (Figure 2-1) shows a 4-step framework of the various elements involved in the process.

Advertising Input:
Message content, media scheduling, repetition

Filters:
Motivation, ability (involvement)

Consumer

Cognition

Affect

Experience

Consumer Behaviour:
Choice, consumption, loyalty, habit, and so forth

Figure 2-1: A Framework for Studying How Advertising Works

(Adapted from Vakratsas and Ambler 1999)

The framework illustrates the advertising inputs (cues), travelling through the filters, cognition, and affect (emotion), finally effecting consumer behaviour, and thereby fulfilling the purpose of advertisings initial implementation. Each element of the framework is explored subsequently.

## 2.2.3 Step 1: Advertising Inputs (Appeals and Cues)

Advertising input exists in a variety of forms. Appeals exist to attract attention and are ultimately used to influence the consumer's feelings and thoughts towards the product / service. A number of appeals may be used appealing to either the logical / rational aspect of the consumer (often cognition) or in an attempt to evoke an emotion (affect) in the attempt to construct an effective advertisement (Belch and Belch 2004). These are often termed either rational (appealing to logic and sense) or emotive (such as fear, humour, love, and loyalty for example) advertising appeals (Albers-Miller and Stafford 1999; Frosch et al. 2007; Ghauri and Usunier 2003; Lipkus et al. 2000). Combining the practical and emotional appeals to the consumer

can be very effective. In the development of an advert, other elements must be considered. These can include; the headlines, body copy of the advertisement, visual elements / pictures, the choice of colours used, special effects, sounds, icons and more. Other components of 'advertising inputs' include scheduling of the media, message content, and repetition (Singh and Cole 1993). Regarding the cues in the advert, more 'obvious' elements include message content, visual cues, and music. However, subtle elements also exist, such as particular colours that trigger a specific psychological response such as arousal, preference, or behavioural change (Moore, et al. 2005; Strugnell 2002). Often choice of the different cues will be employed as a result of conjunction with the different appeals intended for use.

#### 2.2.3.1 Nostalgic cues

Nostalgia has been identified as a highly effective and persuasive marketing / advertising tactic (Naughton and Vlasic 1998) and as an underlying theme of many marketing and advertising strategies of today (Cosgrove and Sheridan 2002; Ironson 1999; Lundegaard 2002; Poniewozik 2002; White 2002). There has been a noted rise of nostalgia's use in popular culture, and the attention of marketing researchers has been focused on defining, categorizing, and / or measuring the concept in an effort to better understand its influences on consumer behaviour (e.g. Baker and Kennedy 1994; Havlena and Holak 1991; Muehling and Sprott 2004; Pascal, Sprott and Muehling 2002; Rindfleisch and Sprott 2000). As previously discussed, there are a great number of different cues used in advertising. However, researchers have begun to narrow this range of those particularly of concern to using nostalgia in advertising.

Nostalgia may be caused by a number of elements, including music, photographs, movies, events (often 'special' or 'momentous'), settings, odors, advertisements, clothing, people's appearance, heritage, retailing, furniture, gifts, 'close others' (family members, friends, partners), political imagery, threatening stimulus, and as a deliberate response to an uncomfortable psychological state, to name a few (Allen, Atkinson, and Montgomery 1995; Areni, Kiecker and Palan, 1998; Goulding 2001; Greenberg, Koole and Pyszczynski 2004; Havlena and Holak 1991; Hirsch 1995; Holak and Havlena 1992; Howell 1991; Lowenthal 1981; Norman 1990; Schindler

and Holbrook 1993; Tannock 1995; Wildschut, Sedikides, Arndt and Routledge 2006; Witkowski 1998). In terms of nostalgic cues used in advertisements, an empirical student of the content analysis of television advertisements (1031 ads appearing on network TV) by Unger, McConocha and Faier (1991) identified six elements in advertising that have nostalgia-evoking qualities. 'Period-oriented symbols' (used 30% of the time) and 'Period-oriented music' (28%) were indicated as the most prevalent with the other elements being references to past family experiences, the olden days, old brands, and patriotic references.

Knowledge of these elements is significant to marketers as if they choose to employ nostalgia in their campaign, as they must be aware of how it can be evoked. Different cues have also been shown to typically evoke different types of nostalgia, namely either historical or Personal Nostalgia (Stern 1992), as discussed in more detail at Section 3.2. It is through manipulation of these cues and appeals that the variation and effectiveness of an advertisement can be produced. From these cues and 'advertising inputs' we move down the framework of advertising (Figure 2-1) to the filter stage.

#### **2.2.4 Step 2: Filters**

Studies show that responses to the advertisement can be mediated by factors such as motivation and ability to process information (Cacioppo and Petty 1985) and attitude towards the ad (MacKenzie, Lutz et al. 1986). According to Vakratsas and Ambler (1999) these are examples of elements that may act as filters of the initial advertising input. It would be expected that certain forms of appeal might have their own filters (such as nostalgic appeal cues being filtered by 'nostalgic proneness' before cognition and emotion). From the filter stage, consumer's experience what has been termed an 'intermediate' response before the final consumer behaviour act. This research is specifically concerned with two filter responses, namely attitude towards the advert and attitude towards the brand. Both of these have been shown in the past to be effected by nostalgia (Muehling and Sprott 2004; Pascal, Sprott, and Muehling 2002).

Although Vakratsas and Ambler (1999) discuss attitude as an aspect of the filter stage before cognition and affect, they themselves make reference to individual responses being mediated by attitude and site MacKenzie, Lutz and Belch (1986). This could imply attitude towards the advert and brand as occurring after cognitive and affect response. In fact, theories such as the Dual Mediation Hypothesis (DMH) from the MacKenzie, Lutz, and Belch (1986) paper the mentioned, amongst others (Edell and Burke 1987; Muehling and Sprott 2004; Pascal, Sprott, and Muehling 2002), clearly show this. The DMH is discussed in more detail later in the chapter and is used as an underpinning in this research model.

Based on this, although Vakratsas and Ambler's (1999) use of a 'filter' is sound in showing that these type of responses are related to understanding how advertising works, the order of flow between the attitudes mentioned in their paper are commonly held to occur after cognition and affect (emotions). In fact, Millar and Millar (1990) go further and classify subjects as possessing either affect-based or cognition-based attitudes. In reality, it is possible that thought and emotions would lead to developing attitudes that would lead to more emotions and thoughts that again effect attitudes and so on... additionally, consumer behaviour (the last stage in their research) is often discussed in terms of attitude change. Basically, by viewing other evidence we will explore the attitude towards the advert and brand this research as a consumer behaviour response to cognition and affect, rather than a role in the filter stage.

## 2.2.5 Step 3.1: Consumer Responses (Cognition and Affect)

Under the banner of consumer responses, two varying dimensions are shown; Cognition and Affect. As discussed in Homer and Yoon (1992) the distinction between affective and cognitive responses to advertisements has been well established (e.g. Burke and Edell 1989; Mackenzie, Lutz and Belch 1986; Park and Young 1986). Each of these responses can be explored in depth. Firstly, however, the issue of inclusion of these two constructs as they related to this research may begin to be explored.

This study is concerned with exploring these constructs as items in an attitudinal model. Many attitudinal models have not included affect as a separate construct from cognition in the effect on attitudes (Erevelles 1998; Wilkie and Pessemier 1973). Allen et al. (2005) discuss this issue in depth in their paper, stating that the criticism of attitude models for slighting emotive considerations is certainly not a new issue (e.g. Desai and Mahajan 1998; Holbrook and Hirschman 1982; Zajonc and Markus 1982), but despite this, these models are applied today much as they were in the early seventies, with predictable outcomes. For example, Fishbein and Ajzen's (1975) attitude model is the coined in the paper as the 'quintessential unidimensional model'. Allen et al. (2005 p. 495) goes on to say that concern has been expressed that the highly logical framework of Fishbein's model "...seems too narrow in its suggestion that evaluative responses are based primarily (if not entirely) on what we would call utilitarian beliefs... (Zanna and Rempel 1988)", and has led researchers to ignore emotional considerations (e.g. Abelson et al., 1982; Schwarz, 1997; Zanna and Rempel 1988). This is supported by Erevelles (1998) who says that the growth in exploring emotions in advertising is in part due to the realisation that 'cognitive models have been inadequate in explaining many purchase decisions and other marketing phenomena'. Allen et al.'s (2005) paper ends by saying how, under the particular conditions, "...emotional reports can be reliable predictors of attitude, and that there are plausible qualifying conditions (like experience with the behavior) that will moderate their relationship with attitudes" (pp. 499). From the justification for exploring both responses, the literature review can move to exploring each dimension specifically.

#### 2.2.5.1 a) Cognition

Cognition refers to the thoughts of the consumer. The thoughts may consciously and unconsciously. It is unavoidable and logical that consumers will experience some cognitive effect before exposure affects behaviour, even if they are unaware of it themselves. These include (but are not limited to) awareness, memory and attitude towards the brand and advertisement (Vakratsas and Ambler 1999).

## 2.2.5.2 Nostalgia's effect on Cognition

As discussed, cognitive effects deal with the alteration of a viewer's 'thoughts' after exposure to stimulus. Exposure to nostalgic cues has been shown to affect the viewers thought process (Muehling and Sprott 2004). Any exposure to any element will entail some cognitive reaction, but empirical studies have shown that exposure to nostalgia may result in some effects significant to marketers. This includes generation of a greater number of nostalgic thoughts; fewer brand related messages, and a more positively valenced set of nostalgic thoughts (Muehling and Sprott 2004).

The thoughts generated by nostalgic advertisements can also vary in complexity, ranging from simple references to the past (e.g. the "good old days") to more elaborate and detailed nostalgic references (as per the complex emotional (feeling) responses found in Baker and Kennedy 1994; Belk 1991; Davis 1979; Holak and Havlena 1998; Holbrook and Schindler 1991) to people, places, and/or experiences from the past (e.g. "I remember my own friends from the neighbourhood...") (Muehling and Sprott 2004). The nature of these thoughts is generally considered to be "a preference (general liking, positive attitude, or favourable affect) toward objects (people, places, or things) that were more common (popular, fashionable, or widely circulated) when one was younger (in early adulthood, in adolescence, in childhood, or even before birth)" (pp. 330 Holbrook and Schindler 1991). There is evidence also that these positive thoughts (which, as later discussed, results in similar feeling / emotions) tend to be selective and often filtered through "rose-colored glasses" (Belk 1990, 1991; Havlena and Holak 1991; Holak and Havlena 1992; Stern 1992) revealing that a consumers memory process generally filters out any thoughts that are unpleasant in nostalgic memory (Davis 1979). These thoughts are thus said to be distinct from autobiographical memories (memories about the self and events in one's life) as they are filtered of negative thoughts (Belk 1990; Davis 1979; Stern 1992). Although this is generally speaking, as nostalgia can also elicited a sense of sadness and loss as consumers desire to return to their past, but realise that this cannot occur (Muehling and Sprott 2004). Also in regards to Autobiographical Memory, the existence of 'Historical Nostalgia' (discussed previously) by its own definition could not be contained in autobiographical memories. Autobiographical

Memory has also been referred to as episodic or personal memory (Baumgartner, Sujan and Bettman 1992). Despite this separation, nostalgia is still closely linked to this form of memory due to its 'self-referencing' nature.

From the literature, we can see that progress has been made in understanding the cognitive reactions nostalgia evokes, but gaps still exist in this area. This is especially the case when taking into account the range of variables previously discussed, such as age and life station. As with all of the reactions to nostalgia, the affect that many of the variables may have remains largely untested. Reaction to nostalgia is not limited to the cognitive effects however.

## 2.2.5.3 b) Affect (Emotions)

The concept that consumers may have affective reactions to commercial stimulus is well ingrained in the literature. Affect denotes the emotion or feeling reactions of the consumer. The term 'affect' may be used to encompass all emotions, moods, feelings and drivers (Batra and Ray 1986; Taylor 2000). The terms 'emotions' and 'feelings' are also used synonymously in literature (Burke and Edell 1989; Homer and Yoon 1992) although 'emotions' are often used to denote reactions more 'extreme' or 'intense' than feelings (Aaker and Myers 1987; Aaker, Stayman, and Vezina 1988). Silk and Vavara (1974) summarized literature on the significant roles of pleasant or unpleasant emotions evoked by advertisements from as far back as 1929 (MacKenzie, Lutz, and Belch 1986). Empirical evidence indicating that advertising can create feeling states that ultimately influence attitudes and purchase behaviour already exists (Holbrook and Batra 1987a). Edell and Burke (1987) reported on how the 'feelings' of consumers have an affect on a consumer's attitude towards the advertisement (Aad), and through the following sections, it will be shown to in turn affect attitude towards the brand, purchase intentions, advertisement recall and more. Dube et al. (2003) supports this sentiment. It is also worthwhile to note that as shown in Brown, Homer and Inman (1998), ad-evoked feeling influence brand attitudes independently of attribute beliefs (e.g. Batra and Ray 1986, Burke and Edell 1989, Mitchell and Olson 1981; Stayman and Aaker 1988). Burke and Edell (1989) successfully show upbeat, warm and negative emotions as affecting a

range of responses. These emotions are likely to feature in emotional responses to nostalgic advertising. A depiction of how exposure may lead to attitude, adapted from Edell and Burke (1987), is shown at Figure 2-2.

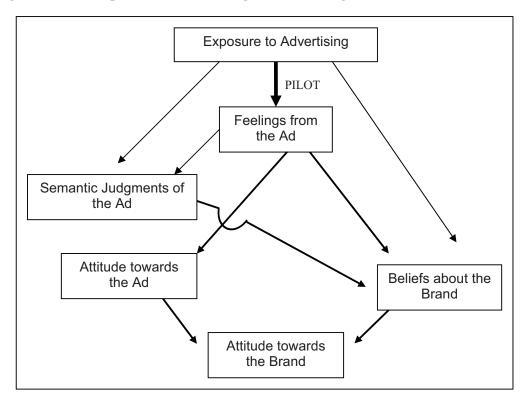


Figure 2-2: Conceptual model of feelings in advertising

(Adapted from Edell and Burke 1987)

Like cognition, emotions occur consciously and unconsciously. In order to measure emotions a variety of techniques have been developed. Laros and Steenkamp (2005) explore the use of emotions in consumer behaviour (the focus of this doctoral thesis and hence the focus of the review). They supply an overview of consumer research that uses emotions as a main variable. This table is included below (Table 2-1). Huang (2001) notes many marketers that borrow significantly from psychology in their efforts to investigate the role of emotions in marketing (e.g. Havlena and Holbrook 1986; Havlena, Holbrook and Lehmann 1989; Holbrook and Westwood 1989; Mano and Oliver 1993; Oliver 1992, 1993, 1994; Oliver, Rust and Varki 1997; Westbrook 1987; Westbrook and Oliver 1991). The three typologies of emotion that marketers most often borrow from psychology (as sited in Machleit and

Eroglu 2000) are Izard's (1977) 10 fundamental emotions from his Differential Emotions Theory, Mehrabian and Russel's (1974) Pleasure, Arousal, and Dominance (PAD) dimensions, and Plutchik's (1980) eight basic emotion categories.

Table 2-1: Summary of Relevant Studies on Emotions

Reference	Emotion measure used	Resulting structure
Edell and Burke (1987)	Edell and Burke (1987)	Upbeat, negative, and warm
Holbrook and Batra (1987)	Holbrook and Batra (1987)	Pleasure, arousal, and dominance
Westbrook (1987)	Izard (1977)	Positive and negative affect
Olney et al. (1991)	Mehrabian and Russell (1974)	Pleasure and arousal
Holbrook and Gardner (1993)	Russell et al. (1989)	Pleasure and arousal
Mano and Oliver (1993)	Watson et al. (1988); Mano (1991)	Upbeat, negative, and warm Positive and negative
Oliver (1993)	Izard (1977)	Positive and negative affect
Derbaix (1995)	Derbaix (1995)	Positive and negative affect
Steenkamp et al. (1996)	Mehrabian and Russell (1974)	Arousal
Nyer (1997)	Shaver et al. (1987)	Anger, joy/satisfaction, and sadness
Richins (1997)	Richins (1997)	Anger, discontent, worry, sadness, fear, shame, envy, loneliness, romantic love, love, peacefulness, contentment, optimism, joy, excitement, and surprise
Dube and Morgan (1998)	Watson et al. (1988)	Positive and negative affect
Phillips and Baumgartner (2002)	Edell and Burke (1987)	Positive and negative affect
Ruth et al. (2002)	Shaver et al. (1987)	Love, happiness, pride, gratitude, fear, anger, sadness, guilt, uneasiness, and embarrassment
Smith and Bolton (2002)	Smith and Bolton (2002)	Anger, discontent, disappointment, self-pity, and anxiety

(Adapted from Laros and Steenkamp (2005) pp. 1438)

In addition to the scales mentioned above, the Standardised Emotion Profile (SEP) scale discussed by Holbrook and Batra (1987b) is worth reviewing. This is due the fact that these items have been utilised in studying the emotional components of nostalgia in its unified form in later studies (Holak and Havlena 1998). The relationship between emotions and nostalgia are discussed in more detail in the following section (2.2.5.4).

## 2.2.5.4 Nostalgia's effect on Affect (Emotions)

The 'emotional' and similar effect nostalgic appeals may have on consumers is also significant to marketers. The emotional and cognitive effects are likely to have some relation, thus they are important for marketers to understand in order to achieve the desired end goal of consumer behaviour. Baker and Kennedy (1994) performed an exploratory study on college students with a nostalgia-themed print ad and found that feelings of nostalgia evoked by the ad (measured by Likert-scaled items) could be separated from general positive affects toward the ad. So from this, and consecutive studies, we know that nostalgia related feelings can be identified and separated. A review of the literature shows that a variety of emotional responses, including warmth, joy, gratitude, affection, and innocence, have been attributed to being elicited by nostalgic thoughts and feelings (Holak and Havlena 1998). Holak and Havlena (1998) also make the connection of these 'positive' emotions being linked to sadness and desire to produce an affective response. The concept of 'negative nostalgia' is also discussed in previous studies (Muehling and Sprott 2004). This corresponds with the research (Baker and Kennedy 1994; Havlena and Holak 1991; Hirsch 1992; Holak and Havlena 1992) in which researchers have identified nostalgia as a 'bittersweet emotion' such as 'sadness and a sense of loss' (Holak and Havlena 1998; Johnson-Laird and Oatley 1989). This view supports Larsen, McGraw and Cacioppo (2001) view of 'happy and sad' emotions as 'bivariate' rather then bipolar reactions. This information is significant to marketers because consumers may begin to associate the advertised product with negative thoughts. However, a negative reaction / affect response is created by an advertisement, but a way to remedy the feeling in question is offered (that is by soothing the sense of loss etc. via purchase or similar) then another avenue for the use of nostalgia in advertising is revealed.

Holak and Havlena (1998) also found that use of the Pleasure, Arousal,
Dominance (PAD) scale, a commonly used scale for testing emotional reaction, was
not greatly useful in nostalgia studies as simply characterising an experience as
pleasant, arousing or dominant (and their opposites) did not capture the richness
revealed in the range of discrete emotions found in nostalgic experiences. The view

of nostalgic emotions as complex and requiring a high degree of cognitive appraisal is support by other studies (e.g. Johnson-Laird and Oatley 1989; Sedikides, Wildschut and Baden 2004). Instead a more complex discrete emotion approach is needed due to the intensity and richness of the discrete emotions revealed under nostalgic experiences. Using items from the Standardised Emotion Profile (SEP) (Holbrook and Batra 1987b), Holak and Havlena (1998) also identified emotion factors of Tenderness, Irritation, Elation, Loss, Fear and Serenity in examining nostalgic experiences. However, no studies have empirically explored emotions as they exist under the different types of nostalgia appeals independently of each other.

## 2.2.6 Step 3.2: Experience

The third element in the framework, labelled 'experience', refers to the conscious or unconscious memories or the product as a result of previous dealings. This dimension is 'prior experience' that could influence the final consumer behaviour act. As discussed in Section 2.1.4.6, familiarity may affect nostalgia. This means that any product/s used in the research testing nostalgia may need to be approached with caution and pre-test to ensure any contamination of results is measured and ay effects of brand choice is taken into consideration when analysing results. As per the figure under discussion, leading on from these responses we see lastly, but perhaps most importantly in the framework, the act of 'consumer behaviour'.

#### 2.2.7 Step 4: Consumer Behaviour

Consumer behaviour is the '...process and activities people engage in when searching for, selecting, purchasing, using, evaluating, and disposing of products and services so as to satisfy their needs and desires' (Belch and Belch 2004, pp. 105). These actions include, but are not limited to, purchase or consumption of the advertised item, loyalty, greater awareness, development of preference or any range of 'calls to action'. Understanding how to utilise advertising and marketing in order to influence the behaviour of the consumer could be considered the ultimate aim of marketing / advertising practitioners. In discovering consumer's response to various stimuli, marketers begin to understand how to induce specific cognitive or emotional reactions, with specific final consumer behaviour actions being the end goal.

This concludes the review at the overall framework of advertising explored in this research. As reviewed earlier in this chapter (Figure 2-1), advertising cues can lead to responses that may be classified under either 'cognitive' (such as number of thoughts) or 'affect' (emotions / feelings). These responses in conjunction with experience will then lead to a consumer behaviour reaction, including attitude modification or development, and intention to purchase the brand / product. Due to the variety of consumer responses and importance of these reactions a new section dedicated to the consumer behaviour responses related to nostalgia is started at Section 2.2.8.

#### 2.2.8 Nostalgia's affect on Consumer Behaviour

In conjunction with the rise in the use of nostalgia in popular culture marketing, attention from marketing researchers has been focused on defining, categorizing, and / or measuring nostalgia. This has occurred in an attempt to better understand how it influences consumer behaviour (e.g. Baker and Kennedy 1994; Havlena and Holak 1991; Pascal, Sprott, and Muehling 2002; Rindfleisch and Sprott 2000). Following are reviews on the various key consumer behaviours show to be affected by nostalgia.

#### 2.2.8.1 Behavioural research contexts

As reported in Muehling and Sprott (2004), nostalgia has been implicated in a variety of behavioural research contexts, including; self-concept (Belk 1990, 1991; Davis 1979), brand loyalty (Olsen 1995), brand meaning (Brown, Kozinets, and Sherry 2003), the human senses (Hirsch 1992), consumption preferences (Holbrook 1993; Holbrook and Schindler 1991, 1994, 1996), literary criticism (Stern 1992), Collective Memory (Meyers 2001), and emotions (Holak and Havlena 1992, 1998). It has also been implicated as a psychological resource that can 'protect and foster mental health' (Zhou, Sedikides, Wildschut, and Gao 2008). Other areas in psychology and marketing of which specific types of nostalgia may be implicated (either as a cause or result) or compared include possible connection to perceptions of age (e.g. Barak, Mathur, Lee, and Zhang 2001) or particular items (Nobel and Walker 1997), how consumer's 'loneliness' (e.g. Kim, Kang, and Kim 2005) effect's

nostalgia, how issues of perceived manipulative persuasion and skepticism (e.g. Hibbert, Smith, Davies, and Ireland 2007) relates to each type of nostalgia, cognitive dissonance (e.g. Sweeney, Hausknecht, and Soutar 2000) after buying goods motivated by nostalgic appeals, how this motivation mediates the effects between emotions and attitudes (e.g. Batra and Stephens 1994) and how historical nostalgic motivated purchases may fit in with consumer's need for social assimilation (e.g. Ruvio 2008), just to name a few. To review nostalgia in detail concerning all of these concepts is currently outside the scope of the future intended research leading from this review. However, some of the key concepts are reviewed and this list does illustrate the range of uses nostalgia may have and thus the importance of increasing our knowledge base regarding this appeal.

## 2.2.8.2 Consumer receptivity

Unger, McConocha and Faier (1991) suggested that consumers' receptivity to an advertisement might be enhanced by the emotional response that a nostalgia invoking advertisement may create. Clearly, the benefit for marketers is enhanced consumers receptivity. However, Muehling and Sprott's (2004) findings suggest that if the advertisement's primary objective were to have consumers ponder the benefits of using an advertised product (e.g. critically evaluating the central message of the ad), nostalgic cues would appear to provide little if any additional value in this regard. Therefore, advertisers that intend to create higher message-response involvement (Batra and Ray 1983) by simply introducing a nostalgic theme in the advertisements may run into difficultly.

## 2.2.8.3 Recall of the advertisement

Findings by Neeb, Faier, and Unger (1989) on the communication effectiveness of nostalgic and non-nostalgic radio commercials provided some support for the notion that nostalgic-themed ads may produce greater recall for the advertisement. However, knowledge of whether this recall is actually for the 'concept' of the advertisement only, or the brand, or the ad information, would make for a constructive future study.

# 2.2.8.4 Consumer brand perceptions and behaviours

Muehling and Sprott (2004) wrote that increased research is warranted on the processes by which nostalgia influences consumer brand perceptions and behaviours, and that use of moderators such as nostalgia proneness (Holbrook 1993) and involvement (Muehling, Laczniak, and Andrews 1993) may be worthy starting points. The significance for marketers is clearly knowledge on the effects nostalgia may have on these reactions.

## 2.2.8.5 Use of negative nostalgia for marketers

This area represents a potentially harmful gap in the knowledge of this topic. As revealed earlier, nostalgic thoughts may be positive, or negative, or even a mixture of each. Muehling and Sprott's (2004) study suggested that negatively valenced nostalgic thoughts appear to have no damaging affect on attitudinal responses to the advertisement, although this finding is not conclusive due to the limitations of generalisability in this study. For example, psychological reactance (Clee and Wicklund 1980; Festinger and Maccoby 1964) may be one undesirable outcome experienced by consumers resulting when someone feels sufficiently restricted from "reliving" his or her past. It has also been suggested that there might be certain advantages for advertisers to consider the possible benefits of tapping into negative aspects of nostalgia. For example, by transferring their unfulfilled desire to return to the past to a desire for the product, consumers may have a more favourable response to the product if it's is marketed as reminding consumers that the nostalgic situation represented in the advertisement is not completely attainable (Holak and Havlena 1998; Muehling and Sprott 2004).

There has been a limited amount of research conducted looking into the negative aspects of nostalgia and their cause and effect. This knowledge may prove to be a useful concept to explore in future research in order to provide marketers with informed decisions and a possible new method of persuasion using nostalgia.

#### 2.2.8.6 Affect on attitude towards the advert and brand

Previous studies support the notion that those individuals exposed to a nostalgic advert and who experienced nostalgic thoughts held more favourable attitudes towards the advert and brand, than did individuals exposed to the non-nostalgic ad (Muehling and Sprott 2004; Pascal, Sprott, and Muehling 2002). This 'transfer affect' has significant implication for marketers as it provides them with another tool in manipulating consumer behaviour. However, it should be noted that there might be limitations of generalisability in this study (as there was only consistent life station, no data on culture and other variables).

#### 2.2.8.7 Affect on purchase intentions

A positive relationship between ad-evoked nostalgia (measured by a 10-item Likert scale) and attitudes toward the ad, brand attitudes, and purchase intentions was identified when individuals' responses to nostalgic print ads was examined (Pascal, Sprott, and Muehling 2002). However, this study, as others, is limited to nostalgia as a 'unified' concept with no distinction between Personal and Historical Nostalgia. MacKenzie, Lutz and Belch (1986) have also shown us how purchase intentions can be affected by nostalgia. This leaves the issue of how consumers may react dependent on the specific type of nostalgia being felt open to questions and interpretation. More thorough information on nostalgia's affect on purchase intention is a gap in the literature that deserves future research.

The previous information has provided a broad review of nostalgia and its place and use in advertising. From this literature a number of gaps and deficiencies are evident. This research focuses on a number of specific gaps as discussed in the following section.

# 2.3 Gaps in the Literature

This chapter has provided a review of the broad concept of advertising and has then identified nostalgia's place in the discipline. It has also highlighted deficiencies as related to the content. The current gaps may have significant consequences from both a conceptual and practical viewpoint.

Perhaps the most obvious gap the possible differences in consumer responses when experiencing varying types (i.e. Personal and Historical) of nostalgic responses, primarily due to the change in Autobiographical to Collective Memory reactions and emotions experienced by respondents as a result of the specific type of nostalgia experienced. Based on the literature it can be seen that nostalgia has been implicated in a range of responses including, but not limited to, cognitive reactions, emotional response, attitudinal responses, and purchase intentions. These are perhaps the most common and possible important reactions that could be effected.

Other possible reactions effected by the type of nostalgic response (as discussed in Section 2.2.8.1) includes self-concept, brand loyalty, brand meaning, the human senses, literary criticism, psychological reactions and metal health, perceptions of age or particular items, consumer's 'loneliness', issues of perceived manipulative persuasion and skepticism, cognitive dissonance after buying goods motivated by nostalgic appeals, how each nostalgic type mediates the effects between emotions and attitudes, and how historical nostalgic motivated purchases may fit in with consumer's need for social assimilation, just to name a few.

Following on from this issue, especially should the two types be found to be significantly different, there is a need for the development of models that could explain the affects and connections between a many of these responses. The fact that nostalgia could be implicated in such as variety of important reactions and that, dependent of the specific type of nostalgic response, these reactions could change in a number of significant ways, indicates that this gap in the knowledge is an important area to satisfy.

On the bases of the two nostalgic types existing and being significantly different from each other, a range of gaps exist in the affect of respondent's age, life station, culture, gender, country of original, current emotional state, nostalgic proneness and more, in regards to the two nostalgic response types. Additionally in this case, a gap also exists in the knowledge as to what affect varying level of each type of specific nostalgic intensity has on consumer response. As the two types have not been empirically confirmed or tested, this knowledge has so far been deficient.

Finally, the current nostalgia scales that have been developed previously are deficient for the use of comparing the nostalgic types independently or comparatively to each other as the scale were not design with this in mind. As such, this gap is an important one to satisfy as developed and validated scales needed to test the range of aspects implicated in nostalgic reactions with the necessary rigour.

## 2.4 Conclusion of Chapter Two

The hypotheses and objectives of this research mirror a number of the key gaps and concerns discussed in this chapter. Chapter 3 explores the underpinnings, methodology, and analysis techniques that will examine these deficiencies.

# **Chapter 3**

# - Theoretical Framework and Hypothesis Development

This chapter will examine the hypotheses for the study and their underpinning theories. As discussed previously, there has been very little theoretical and no empirical research to date regarding many of the possible differing consequences of using the two types of nostalgia (Personal and Historical). The two types could have a significant affect on a number of consumer behaviour responses that marketing practitioners need to be aware of in order to utilise the appeal effectively. Section 2.2.8 discusses the literature related to this point at length. The purpose of this research is to develop knowledge and findings in relation to these gaps. The focus of this study, which compares Personal Nostalgia in comparison to Historical Nostalgia reactions to advertisements, revolves around acquiring knowledge on six main issues (as discussed in Section 1.2) as attained and influenced by the gaps identified in the literature review. These are:

- To undertake development and validation of two scales. One to test for /
  measure Personal Nostalgia and one for Historical Nostalgia. This will
  enable the reactions to be explored independently from each other.
- 2. To discover differences in the effect of the two types of nostalgic responses on **cognition**. This includes the respondent's number of (total thoughts, ratio of thought and similar), nature (positive or negative), and type (nostalgic, ad-related etc) of thoughts in each response group.
- 3. To examine and compare the **emotional reactions** of the respondents under the two types of nostalgic response.
- 4. To discover and compare the effect of each nostalgic response type on the viewer's attitude towards an advertisement (Aad), attitude towards brand (Ab), and intentions to purchase the brand (Ib).
- To extend the Dual Mediation Hypothesis model of consumer responses under the two nostalgic response conditions. Within this, to

- examine the **relationships** (if any) **between the explored reactions** (e.g. pathway between Aad and Ab, and so on).
- 6. To compare the cognitive, emotional, attitudinal and intention reactions of respondents at **different levels of intensity** within the Personal and Historical Nostalgia reaction segments. This objective will be explored as a research question as the need to explore the two types of nostalgic responses internally as individual reactions need only occur if the two types are indeed shown to be different.

The following sections reveal the hypotheses for this study. These hypotheses are designed to achieve the discussed objectives. Underpinnings are also discussed.

# 3.1 An Introduction to the Hypotheses

The following section (3.2) examines the literature concerning the two types of nostalgia and justification as to why they should be explored independently and comparatively to each other. The need for scales to better test existence, levels, and differences in Personal and Historical Nostalgia reactions follows. Next the hypotheses based on cognition, emotions, attitudes, and intentions are explored, and a hypothesis based on extending a model that incorporates these reactions is revealed. Finally, an expected research question on the effects of the intensity of each nostalgic response independently of each other is explored.

# 3.2 <u>Dimensionalising Nostalgia: Autobiographical vs. Collective</u> Memory

The concept of different types of nostalgia (often referred to as 'personal' and 'historical') is discussed by a number of academics (e.g. Baker and Kennedy 1994; Batcho 1995; Havlena and Holak 1991; Hirsch 1992; Holak and Havlena 1992; Stern 1992). In exploring Personal and Historical Nostalgia separately, we look to Stern (1992) and Havlena and Holak (1991) who explain that 'Personal Nostalgia' are responses generated from a personally remembered past ('the way *I* was'), while 'Historical Nostalgia' are responses generated from a time in history that the respondent did not experience directly, even a time before they were born ('the way

it was'). While this distinction of nostalgic appeals is made, empirical studies do not explore these types independently of each other.

Holbrook and Schindler's (1991) previously discussed definition of nostalgia as being from a time 'when one was younger (in early adulthood, in adolescence, in childhood, or even before birth)' is a useful example of the 'unified' view of nostalgia that is often used in empirical studies, with no distinction made between personal and non-personal times (i.e. 'before birth'). Although of course Holbrook and Schindler's (1991) definition is correct in explaining nostalgia as the unified concept they no doubt intended, evidence suggests that marketers may wish to be wary of testing nostalgic appeals in this way. In terms of previous work, Stern (1992) encapsulates well the two appeals in suggesting as to what types of characters, values, settings and similar (in terms of literature) are best suited to which form of nostalgia, and much of this can be applied to a marketing setting. Stern also examines some products that may be better suited under the each type of nostalgia. However, the comparable 'effects' of each appeal as a promotion / marketing tool on various consumers behaviour reactions is not determined or empirically measured.

Stern (1992) also identifies some specific cues for evoking the two different responses. Personal Nostalgia cues included familiarity, home and hearth, lifelike incidents, ordinary people, love, nurturance, and identification. These use memory as the perceiver's 'mental process'. Historical cues included; romance, role models, historical incidents, aspirational / idealised characters, long ago settings, and sometimes exaggerated tones. Baker and Kennedy (1994) as discuss people's tendency to embellish a reconstructed past when faced with this form of nostalgia. The mental process in this case is more fantasy / imaginary. Although the behaviour response was in a proposed form (thus not containing empirical research of suggested effects), the cues suggested do align with the 'real / autobiographical' vs. 'imaginary / idealised' issue of cognition types that is explored next.

As discussed, this research intends to postulate that advertisers should be exploring nostalgia as two separate appeals due to variation in consumer behaviour as a result of the appeal used. The reason why these differences are expected to occur is based in the basic premise that Personal Nostalgia, by definition, deals with ones

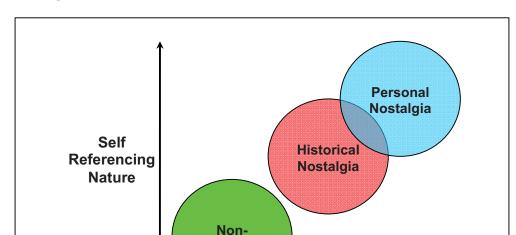
own past, while Historical Nostalgia does not. Research suggests that this will have varying effects on consumers. Theories to support this suggestion include the studies on Memory Systems (Tulving 1972, 1984), and the theory of Autobiographical Memory (Brewer 1986; Neisser 1988), which has also been liken to personal (Brewer and Pani 1983) or episodic (Tulving 1972, 1984) memory. Section 1.4.2.1 provides detailed discussion of these underpinnings outside of the nostalgic context.

Autobiographical Memory clearly has implications for Personal Nostalgia as previous research (e.g. Muehling and Sprott 2004) has shown that this form of memory is stimulated by nostalgia. Although it is often considered a modified form of Autobiographical Memory as it is often somewhat filtered of negative thoughts (through "rose-colored glasses") (Belk 1990, 1991; Davis 1979; Havlena and Holak 1991; Holak and Havlena 1992; Stern 1992), it still makes 'personal connections' (Krugman 1967). Nostalgic thoughts are said to be self-referencing in nature due to their connection or association with an individual's real or idealized past (Belk 1990; Holak and Havlena 1992), which is in line with the definition of Personal Nostalgia only with its connection to Autobiographical Memory. This is of importance as there is a connection between thoughts of an increasing autobiographical / self-referencing nature and a corresponding increase in the salience of the thoughts (Greenwald 1968; Nelson 1993). This suggested relationship between salience and self-referencing thoughts is portrayed graphically at Figure 3-1. The before mentioned increase in salient thoughts is seen in Muehling and Sprott's (2004) study on nostalgia when the most salient thoughts of respondents exposed to a nostalgia evoking advertisement were those that made a connection (often personal) to something from the past.

Historical Nostalgia however, cannot share these personal connections or autobiographical traits in earnest as although some personal connections may be made, the response by definition is generated from a time in history that the respondent did not experience directly, even a time before they were born ('the way it was'). Baker and Kennedy (1994, p.171) also supported this in discussing 'simulated nostalgia' in saying that someone 'can feel nostalgic or attach a symbolic meaning to an object when, in fact, the person has never experienced the event which the object represents'. Instead, Historical Nostalgia deals more with the theory of

Collective Memory (Halbwachs 1950; 1992). Basically, 'Collective Memory' is explained as being shared, passed on, and even constructed by the group, or modern society. This has also been discussed as a nostalgic equivalent of 'virtual reality' (Holak, Matveey, and Havlena 2008). This supports Stern's (1992) discussion of Historical Nostalgia as more 'imaginary', and Ross and Conway's (1986) finding of people as inaccurate historians of their own personal information. By gaining knowledge of a time period and its associated objects, individuals may come to feel they have an understanding of what it was like to have been a part of them (Belk 1990). This clearly shows that differences in cognitive reactions at least should take place in respondents as a result of what type of nostalgia is being drawn out. This is supported by Baker and Kennedy's (1994, p. 172) proposition that 'the more direct the experience, the more vivid the memories'. These changes in cognition are expected to affect other responses such as emotions, attitudes, and intentions (MacKenzie, Lutz and Belch 1986; Petty and Cacioppo 1986; Vakratsas and Ambler 1999). In fact, nostalgic appeals / reactions have been specifically implicated in altering all of these reactions in previous studies (e.g. Belk 1990; Davis 1979; Holak and Havlena 1998; Muehling and Sprott 2004; Pascal, Sprott and Muehling 2002; Sierra and McQuitty 2007; Stern 1992). However, no comparison between the two distinct types of nostalgia that respondents may experience was undertaken.

Simply stated, as the current knowledge generated about nostalgia's use in advertising has been generally limited to testing nostalgia as a 'unified concept', or at best individual types of the appeal without comparison, marketers are unaware of many of the specific differing effects or responses (if any) they may encounter when using specific types of nostalgic appeals in their advertising. This deficiency has been highlighted by previous academics (Holak and Havlena 1998). Some of these expected significant differences in consumer reactions that may be altered, depending on exposure to the varying types, are that of the consumer's (a) cognition and emotions, and (b) variation of their attitude towards the advertisement and brand, possibly resulting in purchase intention changing. This section is referenced in part as discussion of the theoretical underpinnings in Chapter 3 on why we need to explore these types of nostalgia independently and comparatively of each other.



**Nostalgic** 

**Salience** 

Figure 3-1: Conceptual Relationship of Self-referencing Thoughts & Salience in Nostalgia

# 3.3 The Need for Scales

In order to test the hypotheses, it must be clear that consumers are not only being exposed to cues of either a Personal or Historical nature, but also that they are actually experiencing the intended nostalgic reaction. In order to do this, scales that measure each of these specific responses independently of each other is needed. Scales would also provide a measure of intensity allowing those experiencing Low Personal Nostalgia to be compared with those experiencing High Personal Nostalgia (for example). This will allow for more robust understanding and better prediction of consumer behaviour reactions. This is an issue however, as to date no scales that measure the two types of nostalgia independently exist. Instead, only scales that treat nostalgia as a 'unified' concept have been developed. This means that the ability to measure which specific type or intensity using scales is currently not available. As such, scales need to be developed to solve this important gap. This study undertakes this challenge with Chapter 4 revealing the scale development process. A review of the literature pertaining to this issue exists in Section 2.1.3.

# 3.4 H<sub>1</sub>: Effect on Cognition

Before attitudinal and intentions are processed by consumers thoughts must first be retrieved / generated by the consumer by means of their memory / thought process. Memory and thought retrieval has its roots in psychology, thus marketers have adapted the 'theories' related to memory to explain the marketing outcomes. Firstly, concerning memory, literature on memory accessibility suggests that salient thoughts should be more easily retrieved and produced in greater quantity than would less salient thoughts (Bettman 1979; Craik and Lockhart 1972; Wright 1980). Research in this area also shows that salient thoughts are often self-referencing thoughts (or "personal connections," Krugman 1967), and thus may influence mental-processing activity when attitudes are formed or retrieved (e.g. Greenwald 1968). This finding is significant in underlying nostalgia research as per the following rational:

Havlena and Holak (1991) suggest that using ad executional elements (music, jingles, visual images etc.), advertisers may be capable of explicitly encouraging 'nostalgic reflection' (i.e. retrieval of memories of past times). While nostalgic thoughts differ from autobiographical memories (Muehling and Sprott 2004), as they generally provide a 'filtered' version of the past (Belk 1990; Davis 1979; Stern 1992), nostalgic thoughts are by nature still self-referencing thoughts, or 'personal connections', (Krugman 1967) due to their connection or association with an individual's real or idealized past (Belk 1990; Holak and Havlena 1992). Sujan, Bettman, and Baumgartner (1993) found that advertisements that encourage retrieval of autobiographical memories evoke more thoughts about those experiences and higher levels of net positive affect than advertisements not encouraging such memory retrieval. These autobiographical memories by definition are 'self-referencing'. According to studies by Muehling and Sprott (2004) the most salient thoughts of consumers exposed to nostalgic evoking print advertisements, were those that made a connection (often a personal connection) to something from the past (among those thoughts elicited by respondents exposed to a nostalgic ad) thus nostalgic cues should be capable of evoking a more salient group of responses. Therefore, through the original concept of memory retrieval and accessibility, a consumer subjected to a

nostalgic cue laden advertisement should show experience the following: that nostalgic thoughts are more easily retrieved and produced at a greater proportion to total thoughts (Muehling and Sprott 2004).

In regards to total thoughts when exposed to either a nostalgic or a non-nostalgic print advert, Muehling and Sprott (2004) found participants produced approximately the same number of thoughts. This suggests hat nostalgic ads may prompt a certain type of thought production, as opposed to simply prompting more thoughts in general to be produced, which is contrary to the hypothesis and literature that proclaims salient thoughts should be produced in greater quantity than less salient thoughts (Bettman 1979; Craik and Lockhart 1972; Wright 1980). However, this study tested nostalgia as a uniform concept, not taking into account the existence of Personal and Historical Nostalgia.

Nostalgia is associated with emotional (feeling) responses (Baker and Kennedy 1994; Belk 1991; Davis 1979; Holak and Havlena 1998; Holbrook and Schindler 1991), and literature shows that assumption may be made that nostalgic thoughts are generally positive (filtering out thoughts that are unpleasant) (Belk 1990; Davis 1979; Stern 1992). Muehling and Sprott (2004) found that a more positively valenced set of nostalgic thoughts was produced when exposing their sample to nostalgic (as compared to non-nostalgic) print advertisements, but again, this did not test the comparison in Personal and Historical Nostalgia.

Finally, Sujan, Bettman, and Baumgartner (1993) and Williams and Faber (1999) caution that using advertisements that encouraging the retrieval of autobiographical memories may act as a distracter by evoking fewer thoughts about the advertised product's features than advertisements not encouraging such form of memory retrieval. Thus, advertisers may inadvertently cause product-related thoughts to be less accessible. The concept of testing the number of brand / message-related thoughts when exposed to nostalgic adverts was empirically tested by Muehling and Sprott (2004) where they found that the number of brand / message-related (product) thoughts generated during ad exposure is not significantly different between treatment groups. Although this is regarding simply the number of brand / message-related (product) thoughts, as opposed to the feature recall and brand evaluation

tested by Sujan, Bettman and Baumgartner (1993) which found when autobiographical memories (self referencing, as per nostalgic thoughts) were encouraged it resulted in reduced analysis of, and memory for, product information in consumers. This study, however, also tested nostalgia only as a unified type. As can be seen, this aspect requires further attention.

It should also be noted that previous studies (see Muehling and Sprott 2004) have hypothesised nostalgia's affect as eliciting a greater number of nostalgic thoughts, as well as a greater proportion of nostalgic thoughts to total thoughts, as one hypothesis. This researcher believes that these two findings should be separated, as although consumers may have a 'greater number of nostalgic thoughts' when exposed to the advertisement, they may not have greater proportion of nostalgic thoughts to total thoughts. The significance, if any, of this occurrence will be tested.

The key focus of this study is to fill the gap in the literature on the uses / implications of Personal and Historical Nostalgia, as recommended by previous academics (see Muehling and Sprott 2004). As previously stated, it has been suggested that salient thoughts should be more easily retrieved and produced in greater quantity than would less salient thoughts (Bettman 1979; Craik and Lockhart 1972; Wright 1980). Havlena and Holak (1991) and Stern (1992) found that nostalgic thoughts may be generated from either a personally remembered past (Personal Nostalgia) or from a time in history before one was born (historical / communal nostalgia). As the Personal Nostalgia is more self-referencing by definition and thus salient (as in line with the previous revealed evidence on Autobiographical Memory), a marketer may choose to use Personal Nostalgia in place of Historical (due to the self-referencing nature). The prior discussed nature of nostalgic thoughts may also indicate Personal Nostalgia will evoke a more positively valenced set of these thoughts. But as Personal Nostalgia by definition is more 'self-referencing', with reference to the knowledge that this may act as a distracter of brand/-advertisement thoughts (Sujan, Bettman, and Baumgartner 1993; Williams and Faber 1999), marketers may find Personal Nostalgia will result in even fewer brand / messagerelated thoughts generated at the time of ad exposure (as compared to historic nostalgia).

As discussed, many previous studies look at nostalgia as a unified concept, although there has been clear indication that Personal and Historical evoked nostalgia may produce different results. Thus from this, the first set of hypothesis is formed:

H<sub>1</sub>: Compared to respondents experiencing a Historical Nostalgic reaction, respondents experiencing a Personal Nostalgic reaction will significantly experience:

- a) a greater number of personal nostalgic thoughts
- b) a smaller number of historical nostalgic thoughts
- c) a greater proportion of personal nostalgic thoughts to total thoughts
- d) a smaller proportion of historical nostalgic thoughts to total thoughts
- e) an increase in positively valenced personal nostalgic thoughts
- f) a decrease in positively valenced historical nostalgic thoughts
- g) a greater number of total thoughts
- h) a more positively valenced set of thoughts
- i) fewer brand / message-related thoughts
- j) no change in ad-execution related thoughts

# 3.5 H<sub>2</sub>: Effect on Emotions

As previously stated, a variety of reactions (including warmth, joy, gratitude, affection, and innocence) have been attributed to being elicited by nostalgic thoughts as well as negative feelings such as 'homesickness', and 'bittersweet' feelings of sadness and loss (Holak and Havlena 1998). A nostalgic cues ('exposure') ability to result in a particular nostalgic reaction (Personal or Historical nostalgia) that induces particular feelings ('feelings from the ad') is a significant tool for marketers, thus emphasis on developing our knowledge in this field is worthwhile. Pascal, Sprott and Muehling (2002) posed the question of whether or not consumers actually "think" about the idealized past when they are exposed to nostalgic ads, resulting in attitude

and purchase intentions, or if this same outcome is actually a result of the evoked positive nostalgic "feelings". They suggested further investigation of this issue might assist in providing a better understanding of how nostalgic ads are processed.

Previous studies on emotions in nostalgia in its 'unified' form have proven challenging with Holak and Havlena (1998) discussing how nostalgic emotions are often too complex for common measures that divide emotions into just two (e.g. positive and negative) or three (e.g. pleasure, arousal, dominance) factors. Studying the role of emotions under the two nostalgic conditions poses an even more significant challenge, as any differences in emotions under the specific nostalgic reactions are unknown. As such, there are two options for this research.

The first option is to explore the emotional reactions using both the Personal and Historical nostalgic group as one pool. From this point exploratory factor analysis can be conducted revealing the emotion items that make up the factors common to both Personal and Historical Nostalgia. The mean scores of these reactions can then be compared, with an expectation based on the literature that the personal nostalgic group will experience a higher intensity of each emotion compared to the historical group. This is based on the extensive previous discussions on Personal Nostalgia leading to autobiographical responses that are more salient and are of a higher intensity than Historical Nostalgia's less self-referencing responses.

The second option is to explore the data on emotions experienced by respondents under each response category, thus possibly revealing that those experiencing Personal Nostalgia have some different emotional factors all together from their historical counterparts. For example, should Personal Nostalgia have items that reference a 'sense of loss' or 'desire to return', we could possible see the historical group not experiencing these reactions due to the difference in processing as a result of the nostalgic type. By that same token, historical nostalgic groups may experience a sense of 'uninvolvement' as an emotion due to the non-personal feelings or lack of direct interaction with the period being considered, which may not exist under the personal condition. Even simple emotions such as happiness, warmth, and irritation may be common among the groups, but may be constructed of different items. This could signify that the factors, though similar, could actually be specific to Personal or

Historical Nostalgic groups. This process and outcome would support the main research question of this study, as it would show that Personal and Historical Nostalgia are indeed significantly different and should be treated as such. However, this poses problems in any attempt to statistically compare the emotions in each nostalgic group. As such, the first option of finding common emotions will be completed and hypothesis 2 will be tested based on each of the emotions revealed.

As the two types of nostalgia have not been independently tested previous to this research, it is unknown what emotional constructs will be revealed that are common between the two groups. As such, a specific hypothesis as related to individual emotional responses is difficult to construct. However, there is some aspect of emotion responses that can be draw from the literature. It is expected that those experiencing Personal Nostalgia would be expected to have a higher intensity of emotions than the Historical Nostalgia group due to the cognitive processing taking place and the connection to their own past.

However, in the name of rigour, we will also undertake the second option exploring the data on emotions experienced by respondents under each response category as Phase Two: Test Two and Three in order to provide some comparison and contrast between and differences in emotions between groups, should there be any. This is undertaken as a research question and is discussed later in this chapter. However, in terms of direct comparison, based on the literature Hypothesis 2 is as follows:

H<sub>2</sub>: Compared to respondents experiencing a Historical Nostalgia reaction, respondents experiencing a Personal Nostalgia reaction will experience at the time of ad exposure a higher intensity of emotions.

# 3.6 H<sub>3</sub>: Effect on Attitudes

Fishbein (1963, 1967; Fishbein and Ajzen 1975) was hailed as presenting possibly the clearest theoretical explanation of the causal basis of attitudes at the time (Mitchell and Olson 1981). Fishbein's work on attitude theory set out the attitude-belief relationship, which had a basic theoretical proposition that beliefs cause attitude, and as such, because attitude is determined by a set of salient beliefs, changes in attitude must be mediated by changes in those beliefs. Thus, modification of the salient beliefs about the concept is the way in which to change the person's attitude towards the concept (Fishbein and Ajzen 1975; Mitchell and Olson 1981). It was also proposed that the equation set out by Fishbein held for specific behaviour, such as buying a product. Although this belief has continued to be, at least in part, true, subsequent researchers have further developed on this theory to incorporate other relationships and mediating factors.

To better explain the development of the next hypothesis, it should be recapped that it has been shown that the nature of nostalgia is generally positive (Holbrook and Schindler 1991) and filtered of negative thoughts (Belk 1990; Davis 1979; Stern 1992). There has been previous support by Neeb, Faier, and Unger (1989) for the notion that no talgic-themed ads may produce a greater preference for the advertisement, also shown by Pascal, Sprott, and Muehling (2002) when they examined individuals' responses to nostalgic print ads and observed a positive relationship between ad-evoked nostalgia and attitudes toward the ad. In reference to the literature on feelings in advertising, the Dual Mediation Hypothesis (DMH) model and the memory process as related to nostalgia, marketers can expect that nostalgic advertisement (Historical or Personal) will generate more favourable cognitions and feelings (as nostalgia is generally positive) to be transferred toward the advertisement and to the advertised brand. This can result in other forms of consumer behaviour such as purchase intention and recall (Muehling and Sprott 2004). This transfer affect is an underpinning theory for the entourage of concepts and theories that nostalgia has been implicated in and we can see why the previous information on cognition, for example the creation of more nostalgic thoughts (Muehling and Sprott 2004), is significant for marketers. In regards to further

evidence relating specifically to feelings, Edell and Burke (1987) reported on how the 'feelings' of consumers have an affect on a consumer's attitude towards the advertisement (Aad), and through the following sections, it will be shown to in turn affect attitude towards the brand, purchase intentions, advertisement recall and more. A depiction of how exposure leads to attitude is shown in Chapter 2 at Figure 2-2. As nostalgia is often discussed as a feeling the changes in nostalgic responses will change emotions experienced. With the autobiographical thoughts being more salient and personally relevant we would expect emotions to follow in suit (with more personal thoughts leading to higher intensity of emotions and changes in type) and this will in turn affect attitudes.

Hypotheses can be developed from this rational in addition to the knowledge discussed previously regarding the existence of both Personal and Historical Nostalgia. This includes the finding that Personal Nostalgia is concerned with ones' self while Historical Nostalgia is in relation to one was born (Havlena and Holak 1991; Stern 1992) and that self-referencing thoughts are more salient (Bettman 1979; Craik and Lockhart 1972; Wright 1980). A similar hypothesis with nostalgia as a unified concept has been tested by Muehling and Sprott (2004), but it has not been tested with taking into account the possible differing effects of Personal and Historical Nostalgia, (this is noted as a recommendation for future research in Muehling and Sprott 2004) and from this information the hypothesis is formed:

H<sub>3</sub>: Compared to respondents experiencing a Historical Nostalgia reaction, respondents experiencing a Personal Nostalgia reaction will experience at the time of ad exposure:

- a) more favourable attitudes toward the advert
- b) more favourable attitudes toward the advertised brand

# 3.7 H<sub>4</sub>: Effect on Purchase Intentions

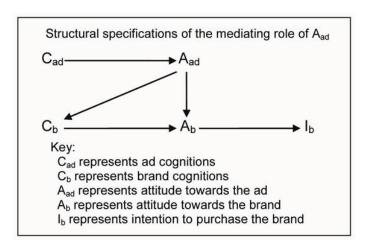
Similar to the case on attitudes, thoughts, and feeling being significantly affected as the change in nostalgic response type occurs, intentions to purchase the brand (Ib) are also expected to be affected. Again, nostalgia has already been implicated in effecting Ib in previous studies (Pascal, Sprott and Muehling 2002). But again, knowledge on how the two variations of nostalgia may differ in their effect on Ib is unknown. In conjunction with the previous discussion on the nature of Personal and Historical Nostalgia it is hypothesised that:

H<sub>4</sub>: Compared to respondents experiencing a Historical Nostalgia reaction, respondents experiencing a Personal Nostalgia reaction will experience at the time of ad exposure an increase in intention to purchase the brand.

# 3.8 H<sub>5</sub>: Model and Mediation

The various connections between cognition, emotion, attitudes and intent have been extensively explored in previous research. Some connections between these responses under nostalgic influence have also been explored. However, as discussed at length through this research, knowledge of any changes in direction or strength of these connections under the two distinct nostalgic reactions is unknown. This hypothesis uses the previously defined Dual Mediation Hypothesis (DMH) model that presents these associations as a base to examine these connections under the two nostalgic contexts. An extension to the model is proposed, and any change in pathways and / or mediation is noted. The DMH is shown at Figure 3-2. The purpose of this hypothesis is to expand the model by the inclusion of an additional cognitive response unique to the nostalgic reaction conditions and to, as conducted throughout the research, re-confirm the need to explore the two types of nostalgia independently to each other. This hypothesis is limited to these objectives and notes that it is only the 'tip of the iceberg' in the need to further examine these responses (and others) under the two nostalgic response conditions using structural equation modeling.

Figure 3-2: Dual Mediation Hypothesis model



(Adapted from MacKenzie, Lutz and Belch 1986)

## 3.8.1 Dual Mediation Hypothesis

The Dual Mediation Hypothesis (DMH) is an important underpinning for this research. MacKenzie, Lutz, and Belch (1986) examined this model along with three other alternative models and suggested the DMH as being '...superior to the three competing specification of the causal mediating role of Aad' (p. 140). This model has achieved mixed success in the literature but has, as discussed by Geuens and De Pelsmacker (1998), received the most support (at the time) as a means of '...representing the interrelationships between Aad, brand and ad cognitions, Ab and PI [purchase intent] (MacKenzie, Lutz, and Belch 1986, Brown and Stayman 1992, Homer 1990, Homer and Yoon 1992)..." (p. 1). Although they do discuss that this model does not specifically take into account the role of feelings.

The justifications for the connections made in the DMH are discussed at length by MacKenzie, Lutz, and Belch (1986). As an overview, however, some are discussed. For instance the ad-related cognitions (Cad) are seen as determining Aad, a relationship demonstrated in previous studies (Lutz, MacKenzie, and Belch 1983; MacKenzie and Lutz 1983). This logic is also based on the multiattribute attitude models (e.g. Mitchell and Olson 1981) and cognitive response (e.g. Wright 1973). Likewise, brand-related cognitions (Cb), stimulated by ad exposure, are put forward as causal antecedents of attitude towards brand (Ab) consistently, and are based on

the same logic. MacKenzie, Lutz, and Belch (1986) also state how the direct casual relationship from Ab and brand purchase intention (Ib) (Ab  $\rightarrow$  Ib) has considerable evidence of support under the 'extended' Fishbein model (see Ryan and Bonfield 1975). Thus the initial support for the linkages of Cad  $\rightarrow$  Aad, Cb  $\rightarrow$  Ab, and Ab  $\rightarrow$ Ib, is revealed. The Aad → Cb linkage, as explained in MacKenzie, Lutz, and Belch (1986), is developed from a cognitive structure / cognitive response model of communication effects (Lutz and Swasy 1977). They go on to say that this linkage represents the "...notion of ad affect as one of a general class of persuasion 'cues' (Fishbein and Ajzen 1975) that can either enhance or diminish the acceptance of message content" (pp. 132). However, it should be mentioned that this was the case under a low-involvement condition. It should also be noted that the Cb  $\rightarrow$  Ab relationship was not supported in MacKenzie, Lutz, and Belch (1986), a finding they suggest was possibly due to the measure of Cb, or due to a more 'peripheral processing' (e.g. Petty and Cacioppo 1981) situation being evoked. The DMH in original form actually suggests that the "...central and peripheral processes are 'intertwined' rather than substitutes for one another" (MacKenzie, Lutz, and Belch 1986, p. 132).

In regards to the Aad → Ab link, Mitchell and Olson (1981) found using covariance analysis that Aad explained significant variance in Ab beyond that contributed by measures of brand beliefs and evaluations. The Aad → Ab linkage is shown in the study to be consistent with prior research (e.g. Gardener 1985; Mitchell and Olson 1981; Park and Young 1984; Shimp 1981). Park and Young (1984) reported that Aad dominated both cognitive response and expectancy-time-value measures in the prediction of Ab under low involvement and "affective involvement" conditions (however no significance was found in high involvement... researchers may wish to test this under different circumstances). In addition, the Aad → Ab link in the model can be viewed as representing the peripheral route to persuasion in Petty and Cacioppo's (1981) elaboration likelihood model (ELM) (MacKenzie, Lutz, and Belch 1986). The ELM falls under the heading of 'Persuasive Hierarchy Models (CA)' (Vakratsas and Ambler 1999). The discussed pathways are expected to be

reconfirmed under the nostalgic conditions and as such the first part of hypothesis five is presented:

H<sub>5</sub>a: The following pathways will be significant under the nostalgic condition.

- i. 'Thoughts about the advert' will significantly affect 'Attitude towards the advert'
- ii. 'Attitude towards the advert' will significantly affect 'Attitude towards the brand'
- iii. 'Attitude towards the advert' will significantly affect 'Thoughts about the brand'
- iv. 'Thoughts about the brand' will significantly affect 'Attitude towards the brand'
- v. 'Attitude towards the brand' will significantly affect 'Intention to purchase the brand'
- vi. 'Attitude towards the advert' mediates between 'Thoughts about the advert' and 'Attitude towards the brand'
- vii. 'Attitude towards the advert' mediates between 'Thoughts about the advert' and 'Thoughts about the brand'
- viii. 'Thoughts about the brand' partially mediates between 'Attitude towards the advert' and 'Attitude towards the brand'
  - ix. 'Attitude towards the brand' mediates between 'Thoughts about the brand' and 'Intention to purchase the brand'
  - x. 'Attitude towards the brand' mediates between 'Attitude towards the advert' and 'Intention to purchase the brand'

As discussed, the model used in this research will use the DMH as a base, but will include additional cognitive measures of 'nostalgic thoughts' (notarised as Cn). These nostalgic thoughts will exist in both 'personal' and 'historical' form (CnP and

CnH respectively). The 'unified' view of nostalgia that is generally undertaken would not include these two reactions independently of each other. It would instead suggest the CnP and CnH are factors that make up a 'Cn' component. As this research intends to show that these two responses are significantly different from each other, they will be explored independently. Inclusion of these reactions is intended to show the clear difference between Personal and Historical Nostalgia as their significance is expected to alter between the two conditions. Based on the literature we expect the CnP and CnH measures to have a direct effect on Aad as both of these responses are expected to be highly emotional and will utilised a more peripheral process in respondents. If there is a significant change in the pathways leading from the two nostalgic thought measures between the two conditions, then this difference in nostalgia will be confirmed. As such hypothesis five is continued:

H<sub>5</sub>b: The following pathways will be significant under the nostalgic condition

- i. 'Personal nostalgic thoughts' will significantly affect 'Attitude towards the advert'
- ii. 'Historical nostalgic thoughts' will significantly affect 'Attitude towards the advert'
- iii. 'Attitude towards the advert' will mediate between 'Personal nostalgic thoughts' and 'Attitude towards the brand'
- iv. 'Attitude towards the advert' will mediate between 'Personal nostalgic thoughts' and 'Thoughts about the brand'
- v. 'Attitude towards the advert' will mediate between 'Historical nostalgic thoughts' and 'Attitude towards the brand'
- vi. 'Attitude towards the advert' will mediate between 'Historical nostalgic thoughts' and 'Thoughts about the brand'

As such the following extended conceptual model is proposed (Figure 3-3).

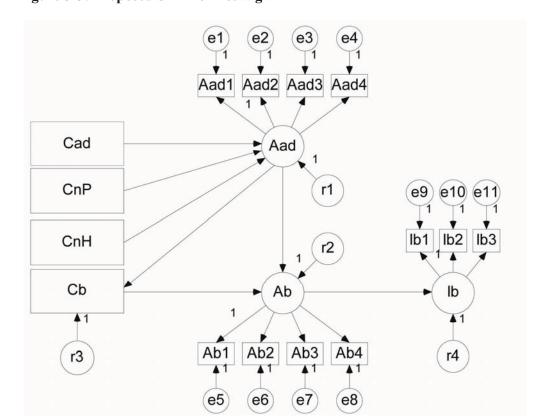


Figure 3-3: Proposed SEM for nostalgia

## 3.9 Potential Research Questions

As the two types of nostalgia have not been empirically tested previously, dependent on results, it is only possible at this point to hypothesise that there will be any change in reactions as a result of the difference in specific nostalgia response. Should this change be evident by exploring Hypotheses 1 - 5, it would be therefore be worthwhile to explore the two types of nostalgia independently of each other to better understand how a rise in each specific type of nostalgia response affects various consumer behaviour responses. As such, we examine these results in an exploratory nature resulting in research questions that follow the line of thought and literature explored previously. These studies will explore what affect changes in the level of Personal or Historical nostalgia experienced by respondents has on Cognition (RQ1), Emotions (RQ2), Attitudes (RQ3), and Intentions (RQ4). As the

two responses are explored independently of each other these questions will be explored as (a) the personal condition and (b) the historical. Table 3-1 clarifies the structure.

Table 3-1: Structure of Research Question

Response	Effect on Cognition	Effect on Emotions	Effect on Attitudes	Effect on Intentions
Personal	RQ1(a)	RQ2(a)	RQ3(a)	RQ4(a)
Historical	RQ1(b)	RQ2(b)	RQ3(b)	RQ4(b)

# 3.10 Conclusions of Chapter 3

As evidenced by the preceding sections of this chapter, there are still a large number of gaps that need to be filled. This research goes a way in providing knowledge that will fill some of the most important questions about Personal and Historical Nostalgia. However, as discussed in 3.3, there is a need for scales to be developed before accurate and rigorous study into the two concepts can be performed. As such, this research develops two such scales as 'Phase One' of the study. The procedure and results of this phase is provided next in Chapter 4. From this point the following chapters (5 and 6) discuss 'Phase Two' of the research, including methodology, analysis results and discussion. Phase Two is concerned with the discussed hypotheses in Chapter 3.

## **Chapter 4**

# - Phase One: Scale Development

The purpose of this chapter is to show the process undertaken to develop two scales used as a manipulation check in future parts of the research. One scale to measure each form of nostalgic response (Personal and Historical) was required. A more in-depth review of previous scales and the need for scales takes place at Sections 2.1.3 (literature review) and 3.3 (development). This challenge was faced by undertaking a total of seven studies. Although the scales were developed independently of each other, often the purpose and process undertaken were the same. As such, this chapter is divided into four stages; with a number of studies occurring under each stage related to either the personal or historical scale development. This structure will assist in decreasing the amount of repetition in the chapter. A quick guide to the structure of this chapter and process appears in Table 4-1. A more complete overview of the studies, their purpose and results appears at the end of this chapter (Table 4-5 for the Personal Nostalgia Scale and Table 4-6 for the Historical Nostalgia Scale).

**Table 4-1: Structure of Scale Development Chapter** 

STAGE	Personal Scale Studies	Historical Scale Studies		
1	Study 1			
2	Study 2	Study 3		
3	Study 4	Study 5		
4	Study 6	Study 7		

Firstly, to recap, the following definitions have been adopted for nostalgia and its various types.

**Nostalgia** is a "preference (general liking, positive attitude, or favourable affect) toward objects (people, places, or things) that were more common (popular, fashionable, or widely circulated) when one was younger (in early adulthood, in adolescence, in childhood, or even before birth)" (pp. 330 Holbrook and Schindler 1991). In a line, it is described as an individual's 'longing for the past, and yearning for yesterday' (Holbrook 1993).

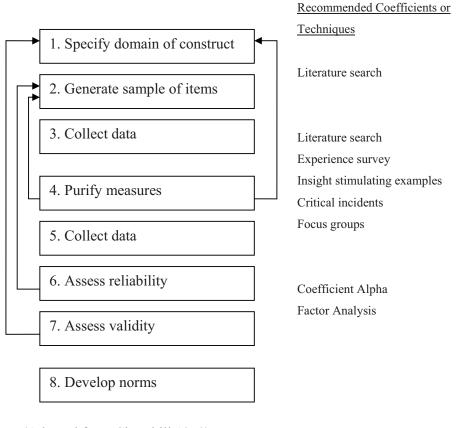
Muehling and Sprott (2004) explain how academics (e.g. Havlena and Holak 1991; Stern 1992) have clarified nostalgia by proposing that nostalgic thoughts may be generated from either a personally remembered past (Personal Nostalgia) or from a time in history before one was born (historical / communal nostalgia). Stern (1992) described the two types as 'the way I was' (personal) and 'the way it was' (historical). Although these definitions of nostalgia described the reaction as that of cognitive event, nostalgia is commonly termed as an emotional reaction (Holak and Havlena 1998). Thus the term of 'emotion' has been added to the definition for clarity.

**Personal Nostalgia**: reactions generated from a personally remembered past (Personal Nostalgia: 'the way I was') (Havlena and Holak 1991; Stern 1992).

**Historical Nostalgia**: reactions generated from a time in history that the respondent did not experience directly, even a time before they were born (historical / communal nostalgia: 'the way it was') (Havlena and Holak 1991; Stern 1992).

The following process of scale development encompasses a number of studies, books and articles, however, in regards to the process undertaken, those of particular importance are Churchill (1979), DeVellis (1991, 2003), Li, Edwards and Lee (2002), Nunnally (1978), Oh (2005), Spector (1992), and, Wells, Leavitt and McConville (1971). The suggested procedure for 'developing better measures', as set out by Churchill (1979) is included at Figure 4-1 to assist in clarifying the procedures and techniques undertaken.

Figure 4-1: Suggested procedure for developing better measures



(Adapted from Churchill 1979)

# 4.1 Stage One: Developing the Scale Items

### 4.1.1 Study One

# 4.1.2 What are we trying to achieve?

Using the preceding explanations of nostalgia, the study (as per Li, Edwards and Lee 2002) uses three methods to generate a set of potential scale items: literature reviews (Churchill 1979), thesaurus searches (Wells, Leavitt and McConville 1971), and experience surveys (Chen and Wells 1999; Churchill 1979). Additionally, it follows the steps for scale development set out by DeVellis (2003).

#### 4.1.3 What is it we want to measure?

It is suggested that the theory surrounding the concepts we are exploring should first be consulted to aid clarity (DeVellis 2003). Mowen and Voss (2008) identify construct definition as a recognized weakness with some scale development practices, and as such, care was taken to ensure this stage was completed with rigour. Much of the required theory for this part of the process appears in the literature review chapter on nostalgia, although specific attention was given to the literature of Havlena and Holak (1991), Holak and Havlena (1998) and Stern (1992). DeVellis (2003) says that scale developers need to ask themselves if the construct they are measuring is distinctly different from others. In regards to this case, while the two types of nostalgia have distinctly different characteristics, there is a real risk of 'cross over' into each other. For example, with reference to an item from a previously established nostalgic scale, "Reminds me of the past" (Pascal, Sprott and Muehling 2002) could easily load on both factors; although considering the purpose they originally design the item for, this was appropriate. Additionally, historical nostalgic reactions to historical appeals may also provoke Personal Nostalgia. Thus, at this stage it was clear that the scale needed to include items that were very distinctly related to one form of nostalgia or the other. This would require using terms or words that help to narrow the scope of the item. An appropriate way to do this would be to ensure self referencing terms were added such as 'reminds me of MY past' for the expected Personal Nostalgia set, or phrases like 'before I was born' for Historical.

### 4.1.4 Generate an item pool.

Firstly a large set of pool items was developed. This included drawing on the first two scale development techniques (i.e. Li, Edwards and Lee 2002) mentioned earlier.

#### 4.1.4.1 Literature reviews

To begin with, previous studies on the use of nostalgia were explored. It should be noted that there are few scales specifically designed for use in nostalgia, and those that do exist measure the construct as a 'unified' concept only. Previous nostalgic scales and associated literature were the key items for the review. It was clear that

both cognitive and emotional reactions to nostalgia are indicated by scale questions (e.g. Baker and Kennedy 1994; Pascal, Sprott and Muehling 2002). Therefore, it is clear that the items to be included in the initial set for the scale could reference thoughts or emotions of the respondent. In addition, the items in previous scales refer to both the respondent's own thoughts and feelings (e.g. 'Makes me think about when I was younger'), and the past in general (e.g. 'This ad does not make me have any feelings about the past').

Regarding the feelings / thoughts generated by nostalgia, the nature of response has been shown to be 'warmth, joy, gratitude, affection, and innocence' (Holak and Havlena 1998). In support of this, the items in past scales make reference to mainly positive experiences. However, often more negative emotions such as 'bittersweet' or "sadness and a sense of loss" thoughts and feelings are also included as per the nature of nostalgia (Holak and Havlena 1998). As such, this would be taken into account in developing the items. In relation to the terms used to describe nostalgia, (warmth, positive thoughts such as joy, and negative thoughts such as loss) they are reminiscent of Edell and Burke's (1987) three dimension feeling scale, which consisted of 'upbeat, negative and warm'. Emotions from each of these dimensions would also be explored for possible use in the nostalgic scale items.

Other characteristics of the current scales include the items referring to how the advertisement made the respondent feel in an attitudinal direction, not general statements about the past or feelings about the past (e.g. things were better in the past). These types of questions are more suited to 'nostalgic proneness' or 'attitude towards the past' scales, like those developed by Holbrook (1993) and Holbrook and Schindler (1994) respectively. Scales on related areas such as the Antiquarianism Scale (McKechnie 1974, 1977) and Experience scale (Taylor and Konrad 1980) were also consulted to provide a more rigorous understanding, especially for the potential Historical Nostalgia scale items. As mentioned, although the scales developed previously are concerned with nostalgia as a 'unified' concept, by examining the context in which the empirical studies were undertaken, we see that many items could be expected to be suited to the dimension of 'Personal Nostalgia'. Thus they will be included with slight variation to better reflect this response.

#### 4.1.4.2 Thesaurus searches

The items expected to reflect nostalgia can also be constructed with thesaurus terms such as 'homesickness, reminiscence wistfulness, longing, and melancholy'. A broader search using these terms revealed items such as 'memories, recollection, looking back, desire, wish, yearning, ache, pining, sad, depressed, downhearted, unhappy, and sorrow'. The thesaurus use in addition to the literature review provides a solid starting point for the scale. As no scales specifically for Historical Nostalgia were found in the review, adaptation of other scales in line with the definitions of Historical Nostalgia provided by academics such as Baker and Kennedy (1994), Havlena and Holak (1991) and Stern (1992), were used as partial justification of items as related to this form. In addition, the thesaurus revealed terms that were related to history such as 'the past, long-ago, earlier period, what went before, ancient times, times of yore, bygone, preceding, elapsed, forgotten days, gone by, [and] yesteryear'. Appropriate terms among these synonyms were utilised in developing the initial pool of items.

## 4.1.4.3 Experience surveys

Finally, a panel of eight people with both academic and industry experience were consulted regarding the words derived from the thesaurus search and a list of adjectives was developed. Relevance of items, clarity and conciseness, and ways of tapping into the phenomenon that were not yet included were discussed. As a case in point, the initial survey form included items with wording such as 'Makes me think about an earlier period / time', 'Reminds me of good times in my past', and 'Reminds me of when I was young'. The panel felt the 'wordiness' of these items, in conjunction to the indication that some words brought about (such as 'remind' forcing the item into a personal factor despite the following terms), needed attention. Thus the final survey for this phase asked respondents to "Rate how strongly you agree with the following statements / descriptions in terms of your feelings and / or thoughts in response to the advertisement you have just seen" which was followed by simpler items such as 'An earlier time', 'All about my past' and 'When I was young'. From this point writing of the initial pool of items for study was conducted. Using

DeVellis' (2003) process again, items were developed from an initial paraphrase of the constructs that the study was trying to measure, and extended to additional statements of the same ideas and replacement of phrases. Items were then looked at critically for any appearance of ambiguity, exceptional length, double-barrelled items, and multiple negatives.

### 4.1.5 Determine format of measurement

Past nostalgic scales (e.g. Pascal, Sprott and Muehling 2002) have successfully used 7-point Likert style scales, and this instrument would hope to continue this process and style. The scale would be only anchored the extreme ends of the 1-7 point indicators with 'strongly disagree' and 'strongly agree' respectively.

## 4.1.6 Have the initial item pool reviewed by experts

The pool of item were then reviewed by the group of experts to help generate the most appropriate pool and to assist in maximising the content validity of the scale. The panel was first supplied with working definitions of the constructs and asked to rate how relevant they felt each item was to what the study intended to measure. They were also asked to indicate which items correspond to each construct. Comments on individual items were invited. They were again asked to indicate any clarity and conciseness issues, as well as to point out any other ways they felt might be useful to tap into the constructs. This process is as suggested by DeVellis (2003).

#### 4.1.7 Consideration of inclusion of validation items

DeVellis (2003) suggests that scale developers may wish to include items in questionaries that detect flaws or problems. This is discussed in relation to other motivations influencing responses (e.g. social desirability). There was not concern of social desirability or similar issues in development of this scale given the nature of the questions and anonymousness. The second suggestion was to include items to assist in measuring construct validity. It was felt that additional items in the initial pool would deteriorate the accuracy of findings and thus this was not undertaken in a true extent as there was concern over the already large number of items (72).

#### 4.1.8 Administer items to a development sample

In order to begin to dimensionalise between the types of nostalgia and develop the two scales, the pool of items needed to first be tested under conditions that evoked the various nostalgic feelings. Two broadcast style adverts were utilised promoting either Personal or Historical Nostalgia related effects. An in-depth discussion of the development of these adverts is included in Section 5.2. Still shots of the adverts can be seen at Appendix A and Appendix B. Needless to say, the adverts were pre-tested to ensure the intended nostalgic reaction was being experienced and every care was made to ensure that adverts did not deviate in anything other than the nostalgic cues being included (that is length, quality, sound, and so forth remained constant between the adverts).

The scale was next administered to a sample size of 238 respondents. The scale can be seen at Appendix C. The demographics and characteristics of the respondents were representative to that of the expected future samples. Students were used as they have been indicated as being able to serve as surrogates in scale development (Yavas 1994). For a more homogenous sample respondents not aged between the aged in the boundaries of 18 and 26 years old were removed, which took the sample size down to 235 valid responses received (117 for the personal condition and 118 for the historical).

Out of the 16920 responses to the possible nostalgic items, there were only 21 missing values (.001%). As such we excluded cases list-wise where missing values occurred. The exercise was undertaken in a classroom setting at a large Australian university. Further evaluation of the sample characteristics found respondents had a mean age of 21.12. In order to ensure no bias between the groups, descriptive comparative analysis using T-tests was undertaken to compare means score of respondent's age. No significant difference was found (personal group M = 21.07, SD = 1.63; historical group M = 21.16, SD = 1.88; t(227.56) = -.41, p = .683).

#### 4.1.9 Evaluate the items

Our previous research suggested that we would see two factors derive from the pool of items. We began purification of our scale with Exploratory Factor Analysis (EFA) (DeVellis 1991, Spector 1992, Sweeney, Hausknecht and Soutar 2000) to examine dimensionality of the items and to allow a reduction of the items. Although the coefficient alpha is often calculated first, it is conceded that performing exploratory factor analysis initially is satisfactory during the early stages of research on a construct (Churchill 1979). However, the EFA (Principle Component Analysis, Varimax with Kaiser Normalization) actually showed three clear factors emerging. Two factors were clearly related to Personal and Historical Nostalgia upon examining the items, although the third emerged to be related to a 'preference for the past' or 'discontent with the present'. This initial factor analysis of all 72 items appears at Appendix D. The items in this unexpected factor were observed to be related to other scales examine in the early stages of developing the initial pool.

However, as the study intended to develop scales suitable for measuring Personal or Historical nostalgia, only the two nostalgia related factors were of concern. This is discussed as a possible future research direction in Section 7.3. After subsequent factor analysis, including removing those items that loaded on different factors or cross loaded, and those in the third factor, 11 items remained in both the suspected personal and historical factors respectively. This is shown at Table 4-2. From this factor analysis the co-efficient alphas (Nunnally 1978; Peterson 1994) were calculated so that inconsistent items could be removed. The initial Cronbach's alphas for both factors were considerably high (>.90), suggesting that the initial scales could be unnecessarily long. With this initial analysis completed the next stage of optimising the scale length and purifying the data could begin.

#### 4.1.10 Optimise scale length

The initial move of this step was to first examine the coefficient alphas. As mentioned, they were all considerably high (>.90). With this reliability to spare, items that overlapped in their aim were removed (e.g. the items 'Memories of good times from my past' and 'Memories of good times in my past' were determined

much too similar). Removal of selected redundant items did not lower the alpha to any great extent (alpha was lowered by just .002). This brought the personal factor items to nine. The items other scores (as discussed following) were also positive. After calculating co-efficient alpha again, it was intended to remove items with squared multiple correlations (which provides an estimate for the items 'communality') of less than 0.30 and corrected item-to-total correlations of less than 0.50, as this would indicate that they shared little common variance with the other items (as per DeVellis 1991, pp. 82-83). In fact, no remaining items for either factor fell below these cut-offs. A 'double-check' of the items through their mean scores (as suggested by DeVellis 2003) showed no extreme means either way (between 4.03 and 5.03). The lengths of the scales were also deemed appropriate at this early stage of development. This left a Personal Nostalgia Scale of 9 items ( $\alpha = .946$ ), and a Historical Nostalgia Scale of 11 items ( $\alpha = .912$ ). An additional EFA was then conducted with the 20 items, where a two-factor solution emerged explaining 62 percent of the total variance. This final factor analysis including additional results for test one can be seen at Table 4-2.

Finally, when splitting the file between those exposed to either the previously established personal or historical adverts, a T-Test conducted using the mean score of the currently proposed personal or historical scale showed positive results. The mean score of the personal items of those exposed to the personal nostalgic advert (M = 5.26, SD = 1.00) was significantly greater than then mean score of the personal items of those exposed to the historical nostalgic advert (M = 4.03, SD = 1.55) (t(197.17) = 7.16, p = .000). Likewise, the mean score of the historical items of those exposed to the historical nostalgic advert (M = 5.15, SD = .86) was significantly greater than mean score of the historical items of those exposed to the personal nostalgic advert (M = 3.85, SD = 1.07) (t(216.66) = -10.18, p = .000). This helps to demonstrate that, assuming the scales are valid, they are able to measure the nostalgic response created by the adverts (which are previously established). It also helps to show the distinction between the two types of nostalgia, as previous nostalgic scales would be expected to perform equally as well regardless of the type of nostalgia being elicited as they were not designed to distinguish between the two conditions / responses.

Table 4-2: Rotated Component Matrix for Scale Development Test 1

	Component	
	1	2
16.Good times from my past	.886	
13.Memories of good times from my past	.857	
14.When I was young	.856	
46.A pleasant reminder of my past	.838	
70.Happy memories from my past	.834	
11.Memories of being a kid	.825	
8.My childhood days	.819	
32.Experiences from my past	.806	
65.About when I was young	.798	
56.The good old days, before I was born		.815
24.A time before I was born		.800
58.Makes me imagine what previous generations were like		.765
33.About past eras		.735
71.Reminisce about a time before I was born		.731
25.About olden times		.727
35.Positive feelings about a time before I was born		.725
21.Previous generations		.716
29.About what went before		.684
53. Things I have not experienced directly		.655
72.A pleasant reminder of a past era		.642
Cronbach's α	.946	.912
Eigenvalues (% of Variance)	34.5	27.3
KMO	.918	
Bartlett	Approx. Chi-squared = 3035.505 Df.= 190, Sig.= .000	

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Factor loadings < .03 suppressed. For unsuppressed EFA matrix see Appendix E.

# 4.1.11 Study One / Stage One Conclusion

It is clear even from these early results that there is a distinction between Personal and Historical Nostalgia. From this point, Stage Two of the scale development can begin. This includes the collection of new data sets for validation of the unidimensionality of the item sets.

a Rotation converged in 3 iterations.

## 4.2 Stage Two: Purifying the Measure / CFA

### 4.2.1 What are we trying to achieve?

This stage was performed to examine the unidimensionality of the scales developed in Study One and, if necessary, to further purify items. From this point development of the two scales would be completed independently from each other. The content validity of the scales would also be examined by comparing the remaining items with the working definition of the nostalgic constructs. As the study intends to develop two independent scales, the sections will discuss results and implications separately where appropriate.

## 4.2.2 Setting up the measures

Two new surveys were produced consisting of the 9 Personal Nostalgia items or the 11 historical nostalgic items, as well as the demographics collected in Study One. This can be seen at Appendix F. A pre-test was conducted to ensure no errors or difficulties existed in understanding and application of the survey, although in reality the surveys were basically smaller versions of the surveys utilised in the Study One.

#### 4.2.3 Intended analysis

Confirmatory factor analysis (CFA) will be used to test for unidimensionality (Pedhazur and Schmelkin 1991), which is considered by some as a superior technique over EFA for this task (O'Leary-Kelly and Vokurka 1998). Additionally, CFA has been shown as a means of scale reduction by showing what items may be trimmed from the scale, in addition to confirming the scale's final form (Floyd and Widaman 1995; Netemeyer, Bearden and Sharma 2003). Confirmatory Factor Analysis (CFA) would be undertaken using the AMOS 6.0 programme. The content validity of the scale could also be examined by comparing the remaining items with the working definition of the nostalgic constructs. From this point we deal with each scale separately during this stage.

### 4.2.4 Study Two – Personal Nostalgia

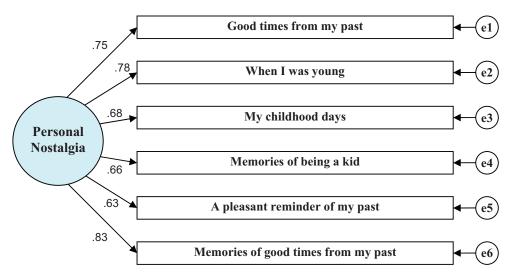
#### 4.2.4.1 Data Collection

New data was collected for this study. Respondents were exposed to only the advert containing the personal nostalgic cues. As per the conditions set out in Study One, only respondents aged between 18 and 26 years of age were used and they were briefed on anonymousness of their responses and rights to not answer questions. Again, this was conducted in a classroom style setting with respondents similar to those used previously. Useable respondents for this study were n = 211.

## 4.2.4.2 Analysis and Results

CFA further refined the scales resulting in six items for Personal Nostalgia with acceptable measures (Hu and Bentler 1999) (Chi-square = 10.992, Degrees of freedom = 9, Probability level = .276, GFI = .983, AGFI = .960, TLI = .994, SRMR = .024, RMSEA = .032,  $\alpha$  = .87). Mowen and Voss (2008) recommend that the number of items in a unidimensional scale should range from four to eight. The CFA is presented in Figure 4-2, which also reveals the six items that emerged through the procedure. The remaining items continue to suit the definition of the construct the scale is intended to measure (content / face validity).

Figure 4-2: Confirmatory Factor Analysis for Personal Nostalgia Scale



### 4.2.5 Study Two Conclusion

Using CFA the initial nine items in the Personal Nostalgia Scale have been refined down to the six remaining items. These items are also show to have acceptable unidimensionality. From this point further tests on reliability and validity can be conducted.

#### 4.2.6 Study Three – Historical Nostalgia

### 4.2.6.1 Data Collection

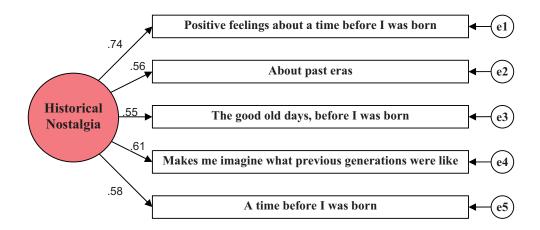
New data was collected for this study. Respondents were exposed to only the advert containing the historical nostalgic cues. As per the conditions set out in Study One, only respondents aged between 18 and 26 years of age were used and they were briefed on anonymousness of their responses and rights to not answer questions. Again, this was conducted in a classroom style setting with respondents similar to those used previously. Useable respondents for this study were n = 235.

### 4.2.6.2 Analysis and Results

CFA further refined the scale resulting in five items for Historical Nostalgia reaching acceptable results (Hu and Bentler 1999) (Chi-square = 3.949, df. = 5, Probability level = .557, GFI = .993, AGFI = .980, TLI = 1.00, SRMR = .022, RMSEA = .000,  $\alpha$  = .74). On face value the scale also still encompassed the character of the definition (content validity).

The CFA is presented in Figure 4-3, which also reveals the five items that emerged through the procedure. The remaining items, again, continue to suit the definition of the construct the scale is intended to measure (content / face validity). Once again, the number of items falls within the recommendation of Mowen and Voss (2008) that the number of items in unidimensional scales should range from four to eight.

Figure 4-3: Confirmatory Factor Analysis for Historical Nostalgia Scale



# 4.2.7 Study Three Conclusion

Using CFA the initial eleven items in the Historical Nostalgia Scale have been refined down to the five remaining items. These items are also show to have acceptable unidimensionality. From this point further tests on reliability and validity can be conducted.

#### 4.2.8 Discussion of Stage Two

In summary of this stage of the scale development process, we were left with six Personal Nostalgia items and five Historical Nostalgia items that showed unidimensionality under the conditions. From this point we can move forward to further validating the scales in Stage Three.

# 4.3 Stage Three: Validation

#### 4.3.1 What are we trying to achieve?

This step aimed to establish the scale's criterion validity (predictive) and construct / trait validity (nomological, discriminant and convergent). Studies by Campbell and Fiske (1959); Churchill (1979) and Oh (2005) were followed as guides for this stage. For this to be achieved, new survey forms and collection of new data was required. This is explored in the following section.

### 4.3.2 Setting up the measures

#### 4.3.2.1 Criterion (predictive) and Construct (nomological) validity

This validity "...concerns the ability of the scale to predict something that should theoretically be related or ability to predict" (Oh 2005, pp. 301). Eastman, Goldsmith and Flynn (1999, pp. 44) discuss this as "...the extent to which a measure is related to actual behaviours or other real life outcomes (Anastasi 1986, Nunnally 1978)". Following Oh's (2005) example, the inclusion of attitude towards the advertisement and attitude towards the brand instruments were included in this step of the study, as previous studies have demonstrated that nostalgic reactions are expected to have a significant effect on attitudes (Muehling and Sprott 2004; Pascal, Sprott and Muehling 2002). Each of these instruments appears as a semantic differential scale (7-point) and is made up of 4-items, with Cronbach's alpha equal to or greater than .90 in previous studies (Muehling and Sprott 2004; Pascal, Sprott and Muehling 2002). The item statements for the 'Attitude Towards the Advert' and 'Attitude Towards the Brand' scales follow respectively; Bad / Good, Unfavourable / Favourable, Negative / Positive, Unpleasant / Pleasant; [and] Bad / Good, Dislike very much / Like very much, Unfavourable / Favourable, Worthless / Valuable.

Results obtained using these attitude scales in conjunction with the developing nostalgic scales could also go towards establishing 'Nomological validity'. Initially proposed by Cronbach and Meehl's (1955) discussion of the 'nomological network', nomological validity (a form of construct validity) taking this validity into account has been suggested. An instrument is said to have nomological validity if it "behaves as expected with respect to some other construct to which it is theoretically related" (Churchill 1995, pp. 538). This means that the correlation between the measure and other related constructs should behave as expected in theory (Cadogan, Diamantopoulos, de Mortanges 1999). The link between this form of construct validity and the criterion (predictive) validity being measured can be seen in Dröge's (1997) explanation of nomological validity as "...the degree to which the construct as measured by a set of indicators predicts other constructs that past theoretical and empirical work says it should predict". It differs from trait validity (i.e., convergent

and discriminant validity) as it involves the empirical relationship between measures of different constructs (Peter 1981). As discussed extensively in the literature review leading to this chapter, nostalgia's place in the marketing / advertising context is related to theories on the modification of attitudes towards adverts and brands, and purchase intentions, dependent on the advertising appeal used. Studies by Pascal, Sprott and Muehling (2002) and Muehling and Sprott (2004) perhaps highlight this best. This is in addition to theories on nostalgia (specifically Personal Nostalgia) being a form of filtered Autobiographical Memory retrieval (e.g. Belk 1990; Davis 1979; Sujan, Bettman, and Baumgartner 1993), while Historical Nostalgia which can deal with a time that one did not experience directly, or even before he / she was born (Stern 1992), does not share this trait. As such, and as hypothesised in later parts of this study, we expect the positive relationship between nostalgic reactions and attitude towards the advert, attitude towards the brand, and purchase intentions to correlate stronger under those most affected by nostalgic appeals. Median split will be used to help indicate this occurrence. As such, this will support the nomological validity of the scale by identifying its correlation with theoretically accepted behaviours. The use of the correlation of behavioural or attitudinal reactions with scale items have been used in past studies (Netemeyer, Durvasula, and Lichtenstein 1991, Shimp and Sharma 1987).

#### 4.3.2.2 Trait Validity (Discriminant and Convergent)

Trait validity is conducted with the intent to "examine the amount of systematic variance in a measure's scores and determine whether this systematic variance results in high correlations with other measures of the construct and low correlations with measures of other phenomena with which the construct should not be associated" (Peter 1981, pp. 135). This can be undertaken with discriminant and convergent validity tests (Campbell and Fiske 1959). Oh (2005, pp. 295) states that "convergent validity concerns the degree of agreement in measures of the same construct, whereas discriminant validity concerns the degree to which measures of conceptually distinct constructs differ (Campbell and Fiske 1959; Churchill 1979)". DeVellis (2003, pp. 88) discusses how that "...if theory asserts that the phenomenon you are setting out to measure relates to other constructs, then the performance of the scale

vis-à-vis measures of those other constructs can serve as evidence of its validity". Intercorrelations among established related measures may be used to determine these measures of validity. Inclusion of such measures in a survey synchronically with the developed scales provides results that can be presented in a Multitrait-Multimethod Matrix (MTMM) as suggested by Churchill (1979) (originally by Campbell and Fiske 1959).

The Multitrait-Multimethod Matrix (MTMM) has been discussed as being capable of showing convergent and discriminant validity (Campbell and Fiske 1959; Churchill 1979; Kenny and Kashy 1992; Trochim 2006). The MTMM requires the inclusion of additional measures theoretically and conceptually related to the intended to be developed scale. Included measures measure similar or related traits (hence 'multitrait') and be conducted in either the same or an alternative method other than that of the developing scale (hence 'multimethod'). Further discussion to clarify the procedure undertaken to operationalise this method is next discussed.

### 4.3.2.2.1 Discriminant validity

In line with Churchill's (1979) belief that a fundamental principle in science is that a particular construct or trait should be measured against different methods and traits, the inclusion of two existing instruments to measure 'Attitude Towards the Past' were included in the survey. The 'Nostalgic proneness scale' was developed by Holbrook (1993) and consists of 8-items. The scale's method was modified to a bipolar statement form (5-point) to assist in the development of the MTMM. This scale is related to both Personal and Historical Nostalgia in the sense that it was developed as a measure of nostalgic proneness, and later used by its developer in reference to 'attitude towards the past' (ATP) (Holbrook and Schindler 1994). The 12-item, likert-type 'Experience Scale' (Taylor and Konrad 1980) has also been used to measure ATP alongside the 'nostalgic proneness' scale in Holbrook and Schindler's (2003) study. It is expected that these scales will, however, not measure the same traits as the intended scale, although will weakly correlate due to their theoretical and conceptual connection, suggesting discriminant validity of the developing scale. The items in these scales are shown in entirety at Appendix G.

### 4.3.2.2.2 Convergent validity

Baker and Kennedy (1994) devised the NostScale; a 6-item likert scale (5-point) designed to establish the distinction between nostalgic feelings associated with an advertisement and positive affect for an advertisement. These items are expected to relate closely to the Personal Nostalgic items in the developing scale. Pascal, Sprott and Muehling (2002) developed their 10-item likert-type scale (7-point) of 'evoked nostalgia' as a test of nostalgic reaction for use as a manipulation check for their studies on nostalgia. These items are better suited to being related to the items in the Historical Nostalgia Scale being developed. Both these scales are shown in their entirety at Appendix G. These scales have been manipulated into 5-point bi-polar statement scales for use in the MTMM. The process of developing the two distinct nostalgic scales is somewhat unique as the scales being developed are expected to split nostalgic reactions (for which scales already exist) into two dimensions. Therefore, a close correlation is expected between scales that measure nostalgia in its 'unified' form and the intended scales.

One of the fears in the validation process of scale development is that if said intended scales are very closely related to those that already exist, it draws into question the need for said scale. In this case, there are expectations that this may initially be seen as the case due to the scale in development being somewhat of a sub-set of uniform nostalgic reactions (measured by the established scales), however, literature, theory, and our exploratory factor analysis indicates that two distinct dimensions do exist and separate analysis is required. It is expected that while the established 'unified' nostalgic scale items could measure both Personal and Historical Nostalgia, they could not do so as effectively as scales tailored to test for the specific types of nostalgia as can not indicate the type of reaction being elicited. This results in a significant decrease of rigour. This being the case, as discussed, a strong correlation between the scales being developed and the existing scales in measuring the traits of nostalgia are expected. However, it is still expected that the rules governing the MTMM will be met, thus showing convergent validity.

### 4.3.3 Intended Analysis

This analysis style and support are consistent in the study developing the Personal and Historical Nostalgia scales. As such, to avoid repetition the initial part of this stage is discussed as one.

## 4.3.3.1 Criterion (predictive) and Construct (nomological) Validity

Previous studies have demonstrated that nostalgic reactions have substantial effects on attitude toward the advert and brand (Pascal, Sprott and Muehling 2002; Muehling and Sprott 2004). As performed in Oh (2005), the current stage will measure attitude towards the advert, in addition to a measure of attitude towards the brand, to test criterion validity. As discussed, these instruments will be administered as semantic differential scales (7-point) of 4-items each. Justification of these instruments has been discussed previously in this chapter.

The data for each individual condition will be divided using median split into a 'High' or 'Low' group as judged by either the personal or historical scale. As discussed, theory and previous studies reveal that, as the level of nostalgic increases so should the positive attitudes of the corresponding respondent. Thus, if the scales being developed are measuring what they are intended to measure, there should be a significant increase in attitude for those indicated by our scales as experiencing higher levels of nostalgia. In terms of nomological validity, this indicates that the constructs the developing scales are measuring are shown as being related empirically to different constructs.

#### 4.3.3.2 Discriminant and Convergent Validity

As discussed in detail previously, use of a Multitrait-multimethod (MTMM) Matrix will be used to analysis discriminant and convergent validity. The 'rules' of a MTMM matrix showing successful validity is discussed under each study as follows.

### 4.3.4 Study Four – Personal Nostalgia

#### 4.3.4.1 Data Collection

A new survey was pre-tested using respondents like that of the intended sample. After completion of the survey a focus group like scenario was conducted to attain feedback regarding any possible issues regarding the survey (e.g. readability, comprehension of instructions, and so on). This test showed the survey to be appropriate for further use. This survey can be seen at Appendix L. The main data collection using the new survey now commenced. This was conducted on a new set of respondents not previously exposed to any of the nostalgia scale development procedures mentioned prior. After removing those that fell outside our delimitation of age and respondents with an extreme number of missing values, 101 valid respondents remained. No pattern was shown regarding any missing data. SPSS' 'Missing Value Analysis' and the Expectation Maximization (EM) approach (SPSS 14.0) was utilised to deal with any missing data (Dempster et al. 1977).

EM is a general method of estimating the features of a given data set, when the data are incomplete or have missing values (Bilmes 1998). The EM method is a maximum likelihood (ML) estimation approach, which is an approach considered to have 'unbiased parameter estimates with both MCAR and MAR data' (Enders and Bandalos 2001) and with this data it can yield acceptable statistical results (Gold and Bentler 2000; Kim and Timm 2007; Yuan and Bentler 2000). The EM method "...should yield more efficient estimates than listwise and pairwise deletion under MCAR" (Enders and Bandalos 2001, p. 433). Musil et al. (2002, p. 819) state "EM approach is considered superior to listwise, pairwise, and mean substitution methods and is assumed to produce unbiased parameter estimates for MCAR...". EM method is also said to give 'consistent and unbiased estimates of correlations and covariances' and that "If data are missing completely at random (called MCAR by Little and Rubin), complete cases, pairwise, EM, and regression methods give consistent and unbiased estimates of correlations and covariances" Hill (1997, p. 42). The EM approach was shown as a viable response as portrayed by 'Little's MCAR' test providing an insignificant value (sig = .115).

### 4.3.4.2 Analysis and Results

#### 4.3.4.2.1 Criterion (predictive) and Construct (nomological) validity – analysis

Under the personal condition, the attitude towards the advert and brand measures received positive Cronbach's alpha scores (respectively  $\alpha = .88$ , and  $\alpha = .90$ ). The criterion (predicative) validity of the scale was supported as under the personal condition, those experiencing High Personal Nostalgia (measured by the scale in development) had a significantly higher mean score of attitude towards the ad (M = 7.45, SD = 1.04) than those with lower personal nostalgic reaction (M = 6.25, SD = 1.26) (t(99) = -5.23, p = .000). Likewise, they also had a significantly greater attitude towards the brand (M = 7.08, SD = 1.22) than their lower nostalgic counterparts (M = 5.71, SD = 1.06) (t(99) = -5.99, p = .000).

As discussed previously, using the correlation of behavioural or attitudinal reactions with scale items have been used in past studies (Netemeyer, Durvasula, and Lichtenstein 1991, Shimp and Sharma 1987). As discussed in Netemeyer, Durvasula, and Lichtenstein (1991, pp. 325), "In examining the nomological validity of a measure, it is important to concentrate on a pattern of results between criterion and predictors and not just significance of results (Cronbach and Meehl 1955)." This being the case, although nomological validity is indicated, further research would be need before robustly justifying the scales as having strong nomological validity as patters need to be shown. However, at this stage and with the support of the previous results, the scales are continuing their line of positive results towards validation.

## 4.3.4.2.2 Discriminant and convergent validity – analysis

As discussed, a MTMM was intended to show discriminant and convergent validity. The MTMM result for the Personal Nostalgia Scale is shown at Table 4-3. Discussion of the table follows. The five principles or 'rules' discussed have been listed verbatim of Trochim (2006), although the following discussion / analysis of the principles are in original form:

Table 4-3: Personal Scale Multitrait-Multimethod Matrix Results

		Likert style		Bi-polar	
		Personal Nostalgia (Personal)	Attitude towards past (Experience)	Personal Nostalgia (Nostalgia Scale)	Attitude towards past (Nostalgic Proneness)
style	Personal Nostalgia (Personal)	0.855 <sup>a</sup>			
Likert	Attitude towards past (Experience)	.349 <sup>b</sup>	0.608 <sup>a</sup>		
Bi-polar	Personal Nostalgia (Nostalgia Scale)	.491°	.269 <sup>d</sup>	0.702 <sup>a</sup>	
	Attitude towards past (Nostalgic Proneness)	.023 <sup>d</sup>	.462°	.031 <sup>b</sup>	0.517 <sup>a</sup>

aReliability diagonal (Cronbach's  $\alpha$ ). bHeterotrait-monomethod block (correlations of the different constructs measured by the same methods). cMonotrait-hetromethod block (validity diagonals) (correlations of the same constructs measured by different methods). dHeterotrait-hetromethod block (correlations of the different constructs measured by different methods).

The following points show the analysis of the basic principles of a valid MTMM:

- 1. 'Coefficients in the reliability diagonal should consistently be the highest in the matrix': This is explored as a trait should be more highly correlated with itself than any other scale. This is uniformly true in this MTMM as can be seen by the numbers indicated with an 'a' (.86, .61, .70 and .52).
- 2. 'Coefficients in the validity diagonals should be significantly different from zero and high enough to warrant further investigation': This is in order to test for convergent validity. The validity diagonals are those that belong to the monotrait-hetromethod block (in this matrix indicated by 'c' and valued as .49 and .46) and in this case all of the correlations in meet this criterion at the .01 level, seen using a bivariate correlation test (Appendix I).
- 3. 'A validity coefficient should be higher than values lying in its column and row in the same heteromethod block': This is the case in this matrix as the first validity coefficient (.49) is higher than .27 and .02, with the remaining validity coefficient (.46) with a likewise result. This is showing that scales that should correlate do so at a stronger level than scales that simply share a method.

- 4. 'Validity coefficient should be higher than all coefficients in the heterotrait-monomethod triangles': This explains that correlations between traits measured by different methods should be stronger than correlations between traits with the same method. It can be seen that the trait coefficients (.49 and .46) are higher than the correlations that appear between traits that share a method (.35 and .03). This signifies the likely absence of any methods factor, although the figure of .35 is questionable. This is discussed in the subsequent rule.
- 5. 'The same pattern of trait interrelationship should be seen in all triangles':
  The MTMM results would usually be expected to reveal correlations of the heterotrait-hetromethod measures (d) being uniformly lowest in the matrix. However, this has not occurred completely in this study. The correlation between the 'experience scale' and the 'nostalgia scale' is seen to be higher than the correlation between the 'Personal Nostalgia Scale' and 'nostalgic proneness'. While this suggests that the 'experience scale' is closely related to the 'Personal Nostalgia', the validity diagonal (c) of the 'experience scale' still outweighs this figure, as does the figure's reliability diagonal (a). All this shows is that the experience scale has a stronger element of Personal Nostalgia than first thought, however, is still better related to both itself and the other attitude towards the past scale being employed. This is again supported by the heterotrait-monomethod correlation of the 'Personal Nostalgia Scale' being higher than one would normally expect, although still within the previously discussed rules. In fact, this in itself portrays an existing reliable pattern between the scales.

## 4.3.5 Study Four Conclusion

From this study we can see that the proposed Personal Nostalgia Scale performed successfully in the predictive, nomological, convergent and discriminant validity tests.

# 4.3.6 Study Five – Historical Nostalgia

#### 4.3.6.1 Data Collection

A new survey was pre-tested using respondents like that of the intended sample. After completion of the survey a focus group like scenario was conducted to attain feedback regarding any possible issues regarding the survey (e.g. readability, comprehension of instructions, and so on). This test showed the survey to be appropriate for further use. This survey can be seen at Appendix L.

The main data collection using the new survey now commenced. This was conducted on a new set of respondents not previously exposed to any of the nostalgia scale development procedures mentioned prior. After removing those that fell outside our delimitation of age and respondents with an extreme number of missing values, 125 valid respondents remained. No pattern was shown regarding any missing data. As discussed at Section 4.3.4.1, SPSS' 'Missing Value Analysis' and the Expectation Maximization (EM) approach (SPSS 14.0) was utilised to deal with any missing data. The EM approach was shown as a viable response as portrayed by 'Little's MCAR' test providing an insignificant value (sig = .143).

#### 4.3.6.2 Analysis and Results

#### 4.3.6.2.1 Criterion (predictive) and Construct (nomological) validity – analysis

Under the historical condition, the attitude towards the advert and brand measures received positive Cronbach's alpha scores (respectively  $\alpha$  = .90, and  $\alpha$  = .91). The criterion (predicative) validity of the scale was supported as under the historical condition, as those experiencing High Historical Nostalgia (measured by the scale in development) had a significantly higher mean score of attitude towards the ad (M = 7.47, SD = 1.1) than those with lower historical nostalgic reaction (M = 6.9, SD = 1.45) (t(123) = -2.47, p = .015). However, the attitude towards the brand although still higher in the High historical nostalgic group than the Low, was not significant (t(123) = -0.51, p = .615). With reference to the results in Study Four, this begins to show the potentially greater effect that evoking Personal Nostalgia has in comparison to Historical.

As discussed previously, using the correlation of behavioural or attitudinal reactions with scale items have been used in past studies (Netemeyer, Durvasula, and Lichtenstein 1991, Shimp and Sharma 1987). As discussed in Netemeyer, Durvasula, and Lichtenstein (1991, pp. 325), "In examining the nomological validity of a measure, it is important to concentrate on a pattern of results between criterion and predictors and not just significance of results (Cronbach and Meehl 1955)." This being the case, although nomological validity is indicated, further research would be need before robustly justifying the scales as having strong nomological validity as patters need to be shown. However, at this stage and with the support of the previous results, the scales are continuing their form of positive results suggesting their validity.

#### 4.3.6.2.2 Discriminant and convergent validity – analysis

The MTMM result of the historical scale is shown at Table 4-4. Discussion of the table follows, which explains how the basic principles of a MTMM showing validity are met. The principles or 'rules' discussed have, again, been listed verbatim of Trochim (2006) but with the following discussion / analysis after each rule in original form.

**Table 4-4: Historical Scale Multitrait-Multimethod Matrix Results** 

		Likert style		Bi-polar	
		Historical Nostalgia (Historical)	Attitude towards past (Experience)	Historical Nostalgia (Evoked Nostalgia)	Attitude towards past (Nostalgic Proneness)
Likert style	Historical Nostalgia (Historical)	0.662 <sup>a</sup>			
Likert	Attitude towards past (Experience)	.318 <sup>b</sup>	0.598 <sup>a</sup>		
Bi-polar	Historical Nostalgia (Evoked Nostalgia)	.440°	.154 <sup>d</sup>	0.844 <sup>a</sup>	
	Attitude towards past (Nostalgic Proneness)	.115 <sup>d</sup>	.398°	.219 <sup>b</sup>	0.518 <sup>a</sup>

aReliabilty diagonal (Cronbach's  $\alpha$ ). bHeterotrait-monomethod block (correlations of the different constructs measured by the same methods). cMonotrait-hetromethod block (validity diagonals) (correlations of the same constructs measured by different methods). dHeterotrait-hetromethod block (correlations of the different constructs measured by different methods).

The following points show the analysis of the basic principles of a valid MTMM:

- 1. 'Coefficients in the reliability diagonal should consistently be the highest in the matrix': This is explored as a trait should be more highly correlated with itself than any other scale. This is uniformly true in this MTMM (indicated by 'a' and with values of .66, .60, .84, and .52).
- 2. 'Coefficients in the validity diagonals should be significantly different from zero and high enough to warrant further investigation': This is in order to test for convergent validity. The validity diagonals are those that belong to the Monotraithetromethod block (in this matrix indicated by 'c') and in this case all of the correlations meet this criterion at the .01 level using bivariate correlation tests, which can be seen at Appendix I.
- 3. 'A validity coefficient should be higher than values lying in its column and row in the same heteromethod block': True in this matrix, as the first validity coefficient (.44) is higher than .32 and .12, with the remaining validity coefficient (.40) sharing this pattern.

- 4. 'Validity coefficient should be higher than all coefficients in the heterotrait-monomethod triangles': This explains that correlations between similar traits measured by different methods should be stronger than correlations between different traits with the same method of measurement. We can see that the trait coefficients (.44 and .40) are higher than the correlations that appear between traits that share only a method (.32, .22). This should signify the absence of any methods factor.
- 5. 'The same pattern of trait interrelationship should be seen in all triangles': These patterns between traits also occur in our MTMM. This can be noted by the correlations of the Heterotrait-hetromethod measures (d) being uniformly lowest in the matrix. This is as would be as expected, as the scales share neither methods nor traits. Likewise, the Heterotrait-monomethod scores (b) are higher than these due to the shared method, but as discussed in rule three, not higher than those that share a trait (c).

By examining the evidence in the MTMM, the Historical Nostalgia Scale being developed fulfils these tests of convergent and discriminant validity.

### 4.3.7 Study Five Conclusion

From this study we can see that the proposed Historical Nostalgia Scale performed successfully in the predictive, nomological, convergent and discriminant validity tests.

#### 4.3.8 Discussion of Stage Three

This stage of the scale development process has successfully shown that both scales have discriminant, convergent, predictive, and nomological validity as compared and contrasted to existing established measures in the literature. From this stage, further validation can occur, and tests of generalisability undertaken to further confirm the appropriateness of each scales use.

## 4.4 Stage Four: Validation and Generalisability

#### 4.4.1 What are we trying to achieve?

The purpose of this study was to increase the generalisability of the scales by performing a CFA on the previously validated items in each of the scales using a variation in advertising media channel (print as opposed to broadcast) and brand choice (Nikon as opposed to Kodak). It also facilitated a concurrent validity test.

## 4.4.2 Setting up the measures

## 4.4.2.1 Generalisability

A scale's ability to remain functional under varying conditions is of importance to its successful adoption in both academic and managerial scenarios. To assist in showing the generalisability of the scale, two print advertisements were produced with the assistance of a local graphic designer to try to encapsulate a realistic portrayal of a print advert (Appendix J and Appendix K). Adverts included new and previously utilized visual images pertaining to the two nostalgic constructs. The brand 'Nikon' was portrayed by the use of the Nikon logo predominately displayed at the bottom of the advert. A new survey was also produced (Appendix L) incorporating both scales as items on the one measure in a randomised order for use in the concurrent validity test.

#### 4.4.2.2 Concurrent validity

This validity test describes the 'operationalization's ability to distinguish between groups that is should theoretically be able to distinguish between' (Trochim 2006). It makes sense then that the Personal Nostalgia Scale should be able to indicate those respondents that were exposed to the personal nostalgic evoking advertisement, and likewise the historical scale should be able to perform a similar function in finding those respondents exposed to the historical. Trochim (2006) goes on to say 'As in any discriminating test, the results are more powerful if you are able to show that you can discriminate between two groups that are very similar'. It would be fair to suggest that 'Personal' vs. 'Historical' nostalgic responses are about as similar as two

groups in marketing can be while still being distinctive, as they are related to the same concept of 'nostalgia'! To operationalise and analysis this, we would expect that the mean scores of each of the developed scales tested in the survey should be significantly different from each other under the corresponding conditions, shown by using T-tests.

## 4.4.3 Study Six – Personal Nostalgia

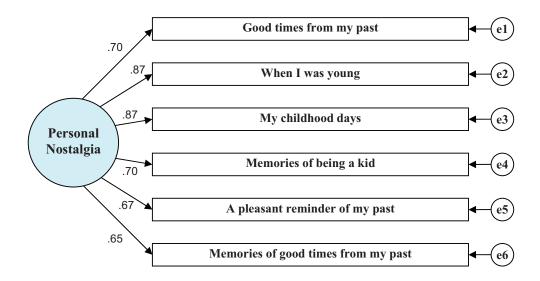
### 4.4.3.1 Data Collection

As the adverts were newly created, a focus group for each of the adverts was undertaken with respondents similar to that of the intended group for analysis. The adverts were discussed to ensure they were eliciting the correct form of response to which the scale was designed to measure. A new sample was then collected under conditions as per the previous studies resulting in 204 useable surveys.

### 4.4.3.2 Analysis and Results

AMOS 6 was again utilised to complete the CFA. The CFA for this test can be seen at Figure 4-4.

Figure 4-4: CFA for the Personal Scale under new conditions



Selected important statistics of the CFA include; Chi-square = 12.5, df. = 9, Probability level = .188, GFI = .980, AGFI = .954, SRMR = .023, TLI = .990, RMSEA = .044,  $\alpha$  = .88. The results of the T-test comparing the mean score of the Personal Nostalgia Scale to the Historical Nostalgia Scale are as follows; Personal: t(203) = 65.22, p = .000, M = 5.01, SD = 1.10, Historical: t(203) = 33.92, p = .000, M = 3.37, SD = 1.42.

# 4.4.4 Study Six Conclusion

The CFA showed the suitability of the Historical Nostalgia Scale under the differing conditions with acceptable results (Hu and Bentler 1999). This assists in indicated generalisability of the scale. Regarding concurrent validity, under the personal condition the T-test showed a significantly greater level of Personal Nostalgia being displayed through the scale than Historical Nostalgia thus showing the Personal Nostalgia Scale's 'ability to distinguish between groups that is should theoretically be able to distinguish between' (Trochim 2006). The final items for this scale can be seen at Figure 4-5.

## Figure 4-5: Personal Nostalgia Scale

Items appear as a 7-point Likert scale anchored at 1 by 'strongly disagree and at 7 by 'strongly agree'.

- 1. Good times from my past
- 2. When I was young
- 3. My childhood days
- 4. Memories of being a kid
- 5. A pleasant reminder of my past
- 6. Memories of good times from my past

# 4.4.5 Study Seven – Historical Nostalgia

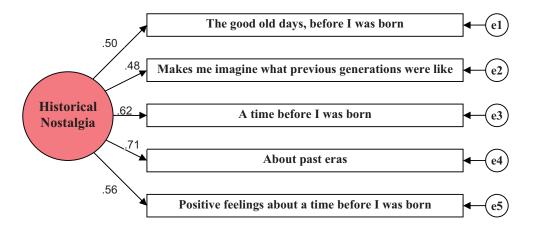
#### 4.4.5.1 Data Collection

As the adverts were newly created, a focus group for each of the adverts was undertaken with respondents similar to that of the intended group for analysis. The adverts were discussed to ensure they were eliciting the correct form of response to which the scale was designed to measure. A new sample was then collected under conditions as per the previous studies resulting in 206 useable surveys.

## 4.4.5.2 Analysis and Results

AMOS 6 was again utilised to complete the CFA. The CFA for this test can be seen at Figure 4-6.

Figure 4-6: CFA for the Historical Scale under new conditions



Important statistics of the CFA include; Chi-square = 5.723, df. = 5, Probability level = .334, GFI = .988, AGFI = .965, SRMR = .031, TLI = .991, RMSEA = .027,  $\alpha$  = .71. The results of the T-test comparing the mean score of the Historical Nostalgia Scale to the Personal Nostalgia Scale are as follows; Historical: t(205) = 72.13, p = .000, M = 5.15, SD = 1.02, Personal: t(205) = 26.45, p = .000, M = 2.57, SD = 1.40.

# 4.4.6 Study Seven Conclusion

The CFA showed the suitability of the historical scale under the differing conditions with acceptable results (Hu and Bentler 1999). This assists in indicated generalisability of the scale. Regarding concurrent validity, under the historical condition the T-test showed a significantly greater level of Historical Nostalgia being displayed through the scale than Personal Nostalgia thus showing the Historical Nostalgia Scale's 'ability to distinguish between groups that is should theoretically be able to distinguish between' (Trochim 2006). The final items for this scale can be seen at Figure 4-7.

# Figure 4-7: Historical Nostalgia Scale

Items appear as a 7-point Likert scale anchored at 1 by 'strongly disagree and at 7 by 'strongly agree'.

- 1. Positive feelings about a time before I was born
- 2. About past eras
- 3. The good old days, before I was born
- 4. Makes me imagine what previous generations were like
- 5. A time before I was born

# 4.4.7 Discussion of Stage Four

This stage indicates the Personal and Historical Nostalgia Scale's success in terms of generalisability by utilising the scales under a new advertising channel and an alternative brand. However, the scales would benefit from additional test of generalisability, especially in terms of alternative respondents (age group, culture and similar) and varying product categories to ensure their appropriateness under a variety of conditions.

# 4.5 Conclusion of Chapter 4

This chapter has explained the process undertaken in developing two scales, one designed to measure the existence of Personal Nostalgia in respondents exposed to advertising, the other to measure the existence of Historical Nostalgia in the same context. As revealed in the body of the chapter, the research has followed the previously laid steps of academics and though the seven studies (indicated in parenthesis) the study has generated and purified the items through EFA and CFA (1, 2, 3), shown content validity and unidimensionality using CFA (2, 3, 6, 7), confirmed the scale's convergent, discriminant, and predictive (criterion) validity (4, 5), and examined the generalisability and concurrent (criterion) validity (6, 7), and ensured the scale's ability to measure its intended purpose (6, 7). As mentioned in the introduction of the chapter, a summary of the steps undertaken for each scale developed appears at Table 4-5 and Table 4-6. The final items in their complete form appear at Figure 4-5 and Figure 4-7.

Table 4-5: Summary of Scale Development for the Personal Nostalgia Scale

Study	Purpose	Generate items that relate to Personal and Historical Nostalgia				
1	Items	72 items				
	Respondents	235 (combined)				
	Stimuli	Two broadcast style adverts for Kodak				
	Methods	Exploratory Factor Analysis (EFA), reliability analysis (Cronbach's)				
	Results	EFA revealed 3 factors, 2 of which were clearly related to Personal and Historical Nostalgia. Further EFA and reliability test resulted in 9 items relating to Personal Nostalgia ( $\alpha$ = .95)				
Study	Purpose	Test the unidimensionality of the items developed in study 1				
2	Items	9 items for Personal Nostalgia				
	Respondents	211				
	Stimuli	One broadcast style advert for Kodak				
	Methods	Confirmatory Factor Analysis (CFA) with AMOS 6.0				
	Results	CFA further refined the scale resulting in 6 items for Personal Nostalgia ( $\alpha$ = .865). Chi-square = 10.992, Degrees of freedom = 9, Probability level = .276, GFI = .983, AGFI = .960, SRMR = .024, TLI = .994, RMSEA = .032, $\alpha$ = .87				
Study 3	Purpose	Perform validity tests including; criterion, face, convergent, discriminant, and nomological				
	Items	6 items				
	Respondents	101				
	Stimuli	One broadcast style advert for Kodak				
	Other scales utilised	Experience scale, Nostalgia scale, Nostalgic Proneness scale				
	Methods	Multitrait-multimethod Matrix (MTMM), median split, T-tests, reliability alpha				
	Results	The MTMM for each scale being developed was considered successful, showing convergent and discriminant validity. The T-test also showed that each scale was (as theoretically expected) in linked to attitude towards the advert and brand. Reliability (Cronbach's alpha) shows the continued high reliability of the personal ( $\alpha$ = .86)				
Study 4	Purpose	Perform validity tests (concurrent) and increase generalisability of the scales by performing a CFA on the study 3 results using a variation in advertising media and brand choice				
	Items	6 items				
	Respondents	204				
	Stimuli	One print style advert for Nikon				
	Methods	T-tests, Confirmatory Factor Analysis (CFA) with AMOS 6				
	Results	CFA showed continued unidimensionality and the generalisability of the Personal Nostalgia Scale ( $\alpha$ = .881 under new conditions of advertising channel (print as opposed to broadcast) and new brand choice (Nikon as opposed to Kodak). Chi-square = 12.480, Degrees of freedom = 9, Probability level = .188, GFI = .980, AGFI = .954, SRMR = .023, TLI = .990, RMSEA = .044, $\alpha$ = .88				

Table 4-6: Summary of Scale Development for the Historical Nostalgia Scale

Study	Purpose	Generate items that relate to Personal and Historical Nostalgia			
1	Items	72 items			
	Respondents	235 (combined)			
	Stimuli	Two broadcast style adverts for Kodak			
	Methods	Exploratory Factor Analysis (EFA), reliability analysis			
		(Cronbach's)			
	Results	EFA revealed 3 factors, 2 of which were clearly related to Personal and Historical Nostalgia. Further EFA and reliability test resulted in 11 items relating to Historical Nostalgia ( $\alpha$ = .91)			
Study	Purpose	Test the unidimensionality of the items developed in study 1			
2	Items	11 items for Historical Nostalgia			
	Respondents	235			
	Stimuli	One broadcast style advert for Kodak			
	Methods	Confirmatory Factor Analysis (CFA) with AMOS 6.0			
	Results	CFA further refined the scale resulting in 5 items for Historical Nostalgia ( $\alpha$ = .744). Chi-square = 3.949, Degrees of freedom = 5, Probability level = .557, GFI = .993, AGFI = .980, SRMR = .022, TLI = 1.00, RMSEA = .000, $\alpha$ = .74			
Study 3	Purpose	Perform validity tests including; criterion, face, convergent, discriminant, and nomological			
	Items	5 items			
	Respondents	125			
	Stimuli	One broadcast style advert for Kodak			
	Other scales utilised	Experience scale, Evoked Nostalgia scale, Nostalgic Proneness scale			
	Methods	Multitrait-multimethod Matrix (MTMM), median split, T-tests, reliability alpha			
	Results	The MTMM was considered successful, showing convergent and discriminant validity. The T-test showed that each scale was (as theoretically expected) in fact linked to attitude towards the advert, (but not towards the brand as per the Personal scale). Reliability (Cronbach's alpha) shows the acceptable ( $\alpha$ = .66), although slightly lower than previous historical scale			
Study 4	Purpose	Perform validity tests (concurrent) and increase generalisability of the scales by performing a CFA on the study 3 results using a variation in advertising media and brand choice.			
	Items	5 items			
	Respondents	206			
	Stimuli	One print style advert for Nikon			
	Methods	T-tests, Confirmatory Factor Analysis (CFA) with AMOS 6			
	Results	CFA showed continued unidimensionality and the generalisability of the Historical Nostalgia Scale ( $\alpha$ = .71) under new conditions of advertising channel (print as opposed to broadcast) and new brand choice (Nikon as opposed to Kodak). Chi-square = 5.723, Degrees of freedom = 5, Probability level = .334, GFI = .988, AGFI = .965, SRMR = .031, TLI = .991, RMSEA = .027, $\alpha$ = .71			

These scales fulfil an important gap in the knowledge of nostalgia as no previous scale exist that make the distinction between the two types of nostalgia, hence they could not previously be easily measured or tested for until now. These scales show the ability to empirically test and differentiate between the two types of nostalgic responses. The method in which the scales were constructed has followed and confirmed existing procedures of scale development under a nostalgic appeal context.

The two scales have managerial implications as use as a manipulation check to ensure advertisements produced are eliciting the correct and intended form of nostalgia and will assist in increased accuracy of expected results on consumer behaviour reactions related to nostalgia. Future studies on nostalgia will also benefit from these scales.

They are an important contribution not only to practitioners and the marketing literature, but will also be further utilised in Phase Two of this research as a manipulation check to ensure the advertisements used are eliciting the correct response and that the expected form of nostalgia affecting other attributes is present.

# **Chapter 5**

# - Phase Two: Main study - Method

# 5.1 Method

This chapter outlines the methodology used in the main study (Phase Two). For in depth proceedings of Phase One of the study (scale development) please refer to Chapter 4. This chapter begins with the preparation of the adverts and their pretesting. Information on the intended research participants follows. Next, instruments used in the study are discussed with support. Specific methodology of the study's data collection technique follows and, finally, intended analysis techniques are explored.

# 5.2 Preparation of advertisements

The hypotheses in this study were tested through an empirical research design. Still shots of the final advertisements used in the study can be seen at Appendix A and Appendix B. These adverts were shown in the form of a conceptual broadcast style advert (advert). Two adverts were created with either personal nostalgic cues (personal-nostalgic advert), or historical nostalgic cues (historical-nostalgic advert). They were also pre-tested extensively by being utilised in Phase One of the study. They were designed in keeping with the information revealed in the literature review (Chapter 2), especially Stern's (1992) findings of Personal and Historical Nostalgia cues (although these were in reference to romance books) as to which elements / cues would be included. Consequently, this meant that the Historical Nostalgia advert was designed to use 'role-model' type characters in more 'fantasy' type action, while Personal Nostalgia generally used 'familiar / real-life' characters in more 'sentimental / tearful' roles. The adverts designed were of an identical size, with the same product / brand mirrored in both a personal and historical advert. Kodak was the brand / product chosen for the study. This brand has been successfully used in past studies of nostalgia (Muehling and Sprott 2004). Similar picture size and copy length / size were also used to decrease other advert related influences on the study.

The photographs used in the advertisements were found on public Internet sites and in personal and friends photo albums. Pictures and copy were the manipulated elements in each of the adverts. A pre-test of various scenarios was conducted with a group of undergrad students separate from those used in the main study to gauge what situations elicited nostalgic response. From this point, pictures were chosen for the Personal Nostalgia advert if they had the previously discussed nostalgic elements of warmth, references to family, special occasions, and similar aspects. These were considered suitable for Personal Nostalgia as they referenced being a child, and the respondents (being undergraduate students) were all old enough to have lived through the presented period of life. For the Historical Nostalgia advertisement, pictures / scenarios were used based on the fact that they depicted an era prior to the subject's birth. As the study was to be undertaken by 1<sup>st</sup> and 2<sup>nd</sup> year undergraduate students, there was a general concept of what period and elements they would have not personally experienced (at least not 'first time' around). For example, picture of Marilyn Munroe, Elvis Presley and James Dean were used. Even though respondents may have experienced these stars, it is well known they hail from a previous generation. Other pictures included Betty Boop and some photographs of unrecognisable people in 'olden day's' fashion. As there was the possibility of mature age students experiencing Personal Nostalgia during the adverts designed to be historic, ages of the respondents were collected to assist in filtering out these respondents in analysis.

Feature attributes of the brands were kept consistent between each condition (one reference of 'quality and reliability' was shown at an identical point of each advert). Copy used was developed upon the researchers understanding of each type of nostalgia. Copy varied according to each advert, although length, size and font were kept consistent. The Personal Nostalgia advert copy included terms such as 'remember your past' and 'when you were young'. The Historical Nostalgia advert included references to the past eras with terms such as 'good old days' and 'from a different time'. These measures were undertaken to try and ensure that only the type of appeal (though image and copy) was altered, rather than thoughts about advert design, length or layout.

# 5.3 Pre-tests of advertisement

Students of the same university and of similar life stations, ages, and ethnicities to those of the main study were used in the pre-tests of the advertisements and study instruments. This was conducted in a classroom setting (as per the main study) and was completed in the same fashion as was intended for the main study. After this time an open discussion on the aspects of the test was allowed in order to identify any problems with survey instructions, layout, or procedure.

# 5.4 Research participants (sample)

Undergraduate university students studying at a large Western Australian university would be used as the subjects for the study. This sample had been secured prior to the start of surveying. Student sampling has been proposed as being representative of general consumers (DelVecchio 2000; Yavas 1994) and the use of students in this study is beneficial as they provided a relatively homogenous sample for the experimental study. For example, there was less chance of data being corrupted by other influences such as consumers 'life station', age differences, past historical experiences and differences in brand / product recognition / familiarity. Students have also been used in past studies on nostalgia (Muehling and Sprott 2004).

Furthermore, evidence of both types of nostalgic appeals can be seen in the market place targeting young consumers. The age of the sample would be restricted to 18 to 26. Those subjects deemed unsuitable due to age, or with a large number of missing values (greater than five missing) were to be removed. The true intention of the study was not revealed, thus each group was exposed to only one advertisement to reduce the likelihood of confusion or revelations as to the purpose of the study by unintended exposure to other adverts. Subsequent analysis of the sample indicated any demographic differences across treatment conditions on dimensions of age or gender and was accordingly dealt with (discussed in the analysis in Chapter 6).

# **5.5 Survey Instruments**

The survey instrument consisted of a thought collection exercise, survey style instruments on emotions, attitudes and intentions, a manipulation check, and demographic information. These elements are discussed over the following sections. The entire survey is shown in full at Appendix M.

# 5.5.1 Measures: Thought

A thought elicitation exercise was used in order to collect data on the thoughts generated by respondents. As in line with previous studies (Muehling and Sprott 2004) no mention of nostalgia was made prior to this and the instrument was completed immediately after viewing the advert. This exercise required respondents to list all thoughts that came to mind as they viewed the ads in separate boxes on the survey instrument. They were given three minute to complete this task (Gurhan-Canli and Maheswaran 1998). Respondents were then asked to evaluate the thoughts listed as either positively, negatively, or neutrally valenced by placing a "+," "-," or "0" next to each (as per Muehling and Sprott 2004; Wright 1980). Wording of the instructions for this instrument were adapted from previous studies (Homer 1990; MacKenzie, Lutz and Belch 1986) and read:

"In the spaces below, please write down all the thoughts that went through your mind when viewing the advert for [item was inserted here]. Please list all the thoughts (not the mere content of the ad) that occurred and your reaction during the viewing of the ad. Do not worry about spelling and punctuation."

At a later stage, as per the existing literature and past studies (e.g. Baumgartner, Sujan and Bettman 1992; Muehling and Sprott 2004; Sujan, Bettman and Baumgartner 1993) two judges working independently, blind to the treatment conditions, coded the thoughts. Thoughts received one of five codes: brand / message-related, ad execution-related, Personal Nostalgia-related, Historical Nostalgia-related, or miscellaneous. These categories were used in Muehling and Sprott's (2004) study, except the 'personal' and 'historical' categories were not specified (as the study was looking at a unified version of nostalgia). Interjudge reliability was calculated and disagreements resolved by discussion between the two

judges (e.g. Cipolli et al. 2001; Gentner, Loewenstein, and Thompson 2003; Homer and Yoon 1992; Judge and Ilies 2002; Muehling and Sprott 2004). The suitability of this technique is indicated in its use by previous academics as referenced.

Next, as discussed in MacKenzie, Lutz and Belch (1986) who credit Calder, Insko, and Yandell (1974) for the original method, an index of each category was formed by subtracting the total number of negative statements (in relation to the desired category) from the total number of positive statements. Each index then represents the net valence of the cognitions included in the categories to form the index. The assumption underlying the use of these indices is consistent with the theory underlying the Fishbein multiattribute model, which is widely used for measuring cognitive structures (e.g. Lutz 1975). This assumption is that consumers employ some form of compensatory processing in combining their cognitive reactions to marketing stimuli. Means and standard deviations of these indices can then be produced thus assisting in data analysis for the remainder of the study.

#### **5.5.2 Measures: Emotions**

As shown in earlier chapters, a variety of emotional measures exist. The Pleasure, Arousal, and Dominance (PAD) scale, while used frequently, may not be suitable for nostalgia. This comment is based on Holak and Havlena's (1998) finding of the complexity of nostalgic emotions and their comment that simply characterising an experience as pleasant, arousing or dominant (and their opposites) did not capture the richness revealed in the range of discrete emotions found in nostalgic experiences. Richins (1997) also discussed the PAD scale stating it's suitability for researchers interested in measuring the dimensions underlying emotion states, but its deficiency in being able to unequivocally infer the existence of specific emotion states. Again, as nostalgia is rich in emotions, the PAD scale is considered unsuitable. This richness also means other emotional measures that explore only a few groupings of emotions (e.g. 'positive and negative', or the 'upbeat, negative, warm' emotions and similar) are also expected to be unsuitable for nostalgic studies. The Consumption Emotions Set (CES) developed by Richins (1997) was explored as an option, in part due to a review of emotions used in consumer behaviour by Laros and Steenkamp (2005)

which discusses the CES. They state that Richins, after extensive research, has constructed a scale that includes most, if not all, emotions that can emerge in consumption situations and that the items used in the CES are among the most frequently encountered words in the psychological emotion literature and can easily be divided in positive and negative affect, if desired. However, there was concern as to the use of a scale intended for consumption as a way to measure reactions to an advert.

Finally, two key studies emerged as being most suited in the Personal and Historical nostalgic test. Selected items in Holbrook and Batra's (1987b) Standardised Emotion Profile (SEP) were as used by Holak and Havlena's (1998) study on nostalgia which revealed emotion factors of Tenderness, Irritation, Elation, Loss, Fear and Serenity in examining nostalgic experiences. These items were selected in addition to items from the original SEP, three items from the 'warmth' dimension from Burke and Edell (1989), and 3 items developed from review of the literature. This resulted in 57 items expected to measure nostalgic reactions in respondents. These items can be seen at Appendix M.

#### 5.5.3 Measures: Attitude towards advertisement and brand

Previous researchers have consistently adapted their scales to measure Aad and Ab. This study drew upon previous research to develop a four-item, 7-point semantic differential scale for each measure (Aad and Ab). The use of the 'semantic differential' technique has been found by past researchers to be easily understood by all subjects (Osgood, Suci and Tannenbaum 1957). The same seven-point scales have been used by academics in previous tests of Aad and Ab under nostalgic situation (Muehling and Sprott 2004; Pascal, Sprott and Muehling 2002). On both occasions these scales showed a Cronbach's alpha of .90 or above.

To measure Aad, the four items used were; good/bad, favourable / unfavourable, positive / negative, pleasant / unpleasant. To measure Ab the items used were; good / bad, like / dislike, favourable / unfavourable, valuable/worthless.

#### 5.5.4 Measures: Purchase intentions

Intentions to purchase the brand (Ib) were measured along side Aad and Ab in Pascal, Sprott and Muehling's (2002) study of nostalgia. This is also the study from which the previously discussed attitudinal measures were taken from. The instrument consisted of three-items in the form of a 7-point semantic scale. Previous Cronbach's alpha for this instrument was shown as > .90. Respondents were posed with the question of 'would you purchase this product?' and items available for Ib were; Likely / Unlikely, Probable / Improbable, Possible / Impossible.

# 5.5.5 Measures: Manipulation check

The scales developed in Phase One to measure Personal and Historical Nostalgia independently of each other were used as the manipulation check item for Phase Two of the research. The development of the scales, including the sets of items that make up the scales, is explored in length at Chapter 4.

# 5.5.6 Demographics

The respondent's age, gender, occupation, and country of origin were collected to ensure there were no demographic influencing factors between groups, especially regarding the respondent's age. Results of the analysis are shown in Chapter 6.

# 5.6 Data Collection and Procedure

The researcher was responsible for all collection, entering and analysis of the data, with the exception of the two independent judges used to code the thoughts in the study. Data was collected at a large university in Western Australia. The researcher was introduced by the tutor of the students, at which stage they were informed that they were able to take part in market research gathering their responses to a new broadcast style advertisement, should they choose to be of assistance. The potential respondents were then briefed on their right to anonymousness and other ethic related matters, such as the right to discontinue the survey. Instructions on the conductions of the experiment also took place at this time, such as the need for no interaction with other respondents and relative silence. Participants were then given

the survey forms face down and instructed to leave them in this condition until instructed.

The subjects were then exposed to one of the adverts containing nostalgic cues developed and discussed previously (Section 5.2). They were reminded that discussion between peers was not allowed. After exposure, respondents were asked to immediately complete the thought elicitation exercise. No mention of nostalgia, as in line with previous studies (see Chattopadhyay and Basu 1990; Muehling and Sprott 2004) took place at this stage. As stated previously, respondents were asked to list all thoughts that came to mind as they viewed the ads in separate boxes on the survey instrument. Subjects had three minute to complete this task, as per previous thought elicitation exercises (Gurhan-Canli and Maheswaran 1998). Again in line with the previous discussion of this instrument, respondents were instructed to evaluate each thought as positive, negative or neutral by placing a '+', '-', or '0' respectively in a box supplied beside each thought. This was completed at the respondent's own pace.

They were then instructed to complete the emotion measurement, as outlined in Section 5.5.2, at their own pace. Following this, respondents took part in the attitudinal measure exercise, as outlined previously (5.5.3), which looks at their Aad, Ab, and Ib. Respondents were asked to complete this task at their own pace. Subsequently, the manipulation check derived from Phase One of this research was completed, and finally collection of the demographics data entered, also completed at the respondent's own pace. Respondents were asked to remain silent after finishing the survey to allow others to complete their survey under similar conditions. Upon completion the researcher collected all surveys. After this time respondents had the opportunity to ask questions. Respondents were thanked for their time and participation.

# 5.7 Analysis Methods / Statistical Techniques

Two independent judges (experienced researchers) working independently coded the thoughts, as in line with the literature (Muehling and Sprott 2004). Judges were briefed on the task and asked to give each thought a code similar to those in the Muehling and Sprott (2004) study, after which time interjudge reliability was undertaken showing agreement of 90%. Disagreements were solved by discussion between judges and researcher as per previous studies (e.g. Cipolli et al. 2001; Gentner, Loewenstein, and Thompson 2003; Homer and Yoon 1992; Judge and Ilies 2002; Muehling and Sprott 2004). Section Measures: Thought5.5.1 discusses this at length.

The purpose of this research is to examine the hypothesized difference in consumer responses when feeling either Personal or Historical nostalgia. As such, it is necessary to have two groups representing either Personal or Historical Nostalgic reactions. This can be achieved using the Personal and Historical Nostalgia Scales developed in Phase One. One option would be to simply compare those that viewed the advert containing personal nostalgic cues (n = 420) to those that viewed the historical nostalgic advert (n = 407). This method would hold as acceptable as when we compare the Personal Nostalgia Scale score of those who watched the personal nostalgic advert (M = 5.80, SD = 1.11) to those that viewed the historical nostalgic advert (M = 4.19, SD = 1.73), there is a significantly high score in the personal group (p < .05). Likewise, the score of the Historical Nostalgia Scale developed in Phase One of those that viewed the historical advert (M = 5.33, SD = 1.11) was significantly higher than those that viewed the personal nostalgic advert (M = 3.46, SD = 1.60). This indicates that the advertisements were achieving their intended reactions in the respondents. However, the research specifically desires to examine the two types of nostalgic reactions independently of each other, as opposed to the affect of an advert 'attempting' to make people feel a particular nostalgic reaction.

Examining the scale scores again, we can also see that some respondents, despite viewing the historical nostalgic advert, score higher on the Personal Nostalgia Scale, and vise versa under the historical condition. This is an interesting finding in itself and two graphs (Figure 5-1 and Figure 5-2) show the results under each condition. In

Figure 5-1 we can see a clear distinction between the blue line of the Personal Nostalgia Scale and the pink Historical Nostalgia Scale line.

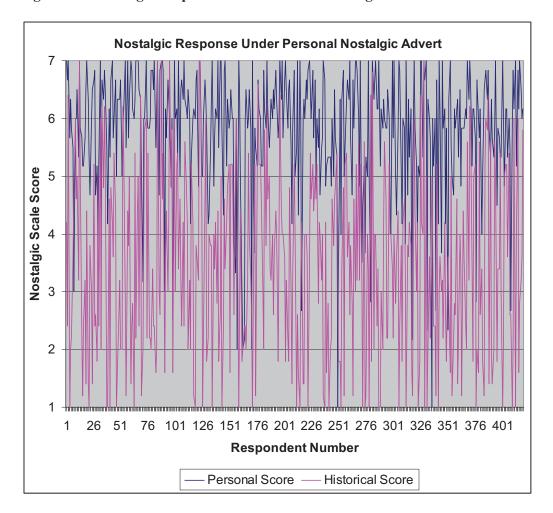


Figure 5-1: Nostalgic Response under Personal Nostalgic Advert Condition

However, Figure 5-2 of the Historical condition is not so clear, with the Personal Nostalgia Scale score at times above that of the Historical score.

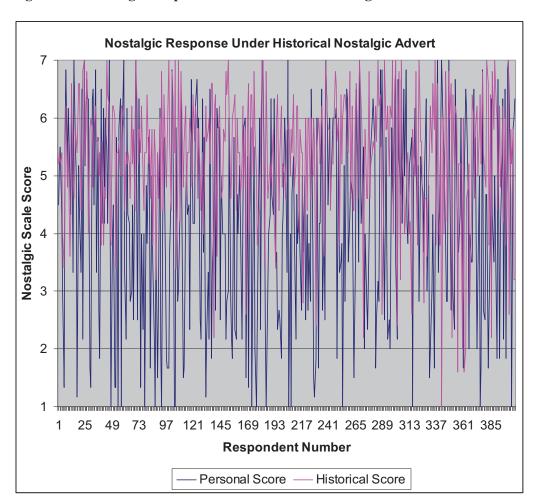
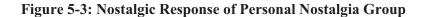


Figure 5-2: Nostalgic Response under Historical Nostalgic Advert Condition

It is interesting to note that people experiencing the personal nostalgic advert were generally likely to score higher on the Personal Nostalgia Scale, but some people viewing the historical nostalgic advert tended to sway to responses of Personal Nostalgia also. There are two likely reasons for this. Firstly, some viewers of the historical advert may have been more exposed to the items used in the historical advert (Elvis Presley, momentous world occasions etc.) at a younger age than others, either through personal interest, parents or similar influencers. As such, they associate the stimulus as personally relevant or as a part of autobiographic memory, thus resulting in a higher personal nostalgic reaction. The second possibility is that as people being to reflect on the past in general (non-personal and thus

historical nostalgic related) they also begin to reflect on their own past due to their desire for thoughts of a more self-referencing nature. Although this is a very real possibility to occur when Historical Nostalgia is operationalized in the market place, this study's key focus is examining the differences in specifically Personal and Historical Nostalgic reactions, rather than possible responses to Personal and Historical Nostalgic cued adverts. As such, a second method for separating the respondents into the necessary groups was undertaken.

In order to separate the respondents to better reflect the nostalgic response being examined, and thus ensure more rigorous understanding of each specific type of nostalgia, those scored a higher results on the Personal Nostalgia Scale than Historical were placed in the 'Personal Nostalgia' group (#1) (514 respondents). Likewise, those who felt Historical Nostalgia more than Personal were placed in the 'Historical Nostalgia' group (#2) (292 respondents). Those respondents who scored equally on the Personal and Historical Nostalgia Scale were marked as 'zero' as they were not indicated as having a distinguished reaction either way and were not used in the analysis (#0) (21 respondents). As a second check of these respondents, it is possible to examine the new mean scores of the corresponding scale for each group to ensure the intended reaction is being met. Under the new Personal Nostalgia group the Personal Nostalgia Scale score (M = 5.87, SD = 0.93) is significantly higher (p <.01) than the Personal Nostalgia Scale score in the Historical Nostalgia group (M =3.40, SD = 1.47) (t(426.84) = 25.97, p = .000). Likewise, the Historical Nostalgia Scale score under the Historical Nostalgia group (M = 5.56, SD = 0.91) is significantly greater then the Historical Nostalgia Scale score under the Personal Nostalgia group (M = 3.63, SD = 1.56) (t(803.59) = -22.20, p = .000). Of course in a practical sense there would be some people in the marketplace that would feel an equal amount of both nostalgic responses, but this study is designed to understand the differences in the two reaction types, not the response based on the advert cues being portrayed. New graphs showing the nostalgic responses of these two new groups which are more accurate representations of the reactions being explored can be seen at Figure 5-3 and Figure 5-4. As can be seen, the distinction between Personal and Historical Nostalgic responses in is group is now clear.



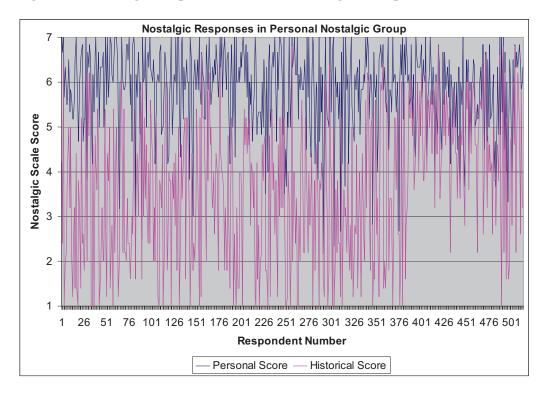
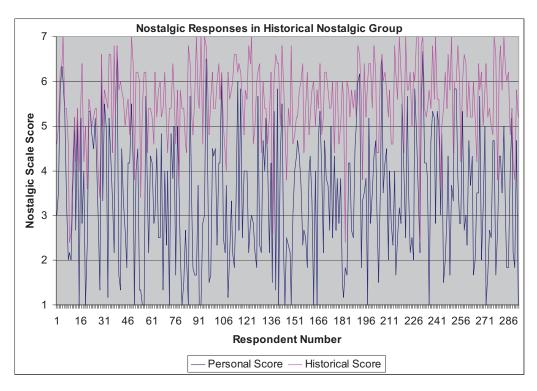


Figure 5-4: Nostalgic Response of Historical Nostalgia Group



In order to test Hypothesis One simple counts (e.g. the number of thoughts), ratios (e.g. the number of nostalgia-related thoughts to total thoughts), and valenced indices (e.g. the number of positive nostalgia-related thoughts minus the number of negative nostalgia-related thoughts) will be calculated and T-tests used for analysis, as performed in previous similar studies (Gurhan-Canli and Maheswaran 1998; Muehling and Sprott 2004). These methods are deemed appropriate as T-tests will successfully examine any significant differences between the mean scores of two groups (in this case Personal and Historical Nostalgic groups). For added rigour, if the Personal and Historical groups are proven to be distinctly different from each other, each group can be separated into High, Mid, and Low Personal and Historical Nostalgia response groups using interquartile range (25%, 50%, and 25%). In this case, ANOVA is appropriate as there are more than two groups. The emotions hypothesis and hypotheses concerned with attitudes and intentions (measured on semantic differential scales) can also be analysed with T-test in Study One and ANOVA in Study Two and Three. Finally, as discussed previously, Structural Equation Modelling (SEM) (using Amos 6.0) will be used to examine the entire model and relationships between measures  $(H_5)$ .

# 5.8 Conclusion of Chapter Five

This chapter has set out the measures and method that will be used in analysis of the constructed hypotheses. Support for the measures and methods were discussed throughout and shown to be sound and appropriate to achieve the goals of this research. The analysis and results of the hypotheses and research questions developed in Chapter 3 are shown next in Chapter 6.

# **Chapter 6**

# - Phase Two: Main Study - Analysis and Discussion

This chapter can be viewed as divided into three 'studies'. First, as per the main focus of the research, comparison between Personal and Historical Nostalgia will occur. This first study compares respondent's reactions as set out in the hypotheses between the Personal Nostalgia and Historical Nostalgia reaction groups. However, successful dimensionalisation of nostalgia into type types would allow for the potential research questions (as discussed in Chapter 3) to be explored.

As the comparison of Personal against Historical Nostalgic reactions were expected to show many significant differences in consumer reactions between the groups that have not been explored before, it came to mind that if the two distinct types were now shown to be unique from each other, they should be 'internally' explored also. That is, how do the different levels of intensity of Personal (or Historical) Nostalgia based reactions compare to one another. As such, two additional studies using the data from Study One were developed for this research question. Exploration of the affects when Personal (Study Two) or Historical (Study Three) Nostalgia intensity is 'Low', 'Mid', or 'High' would be conducted. This would utilize those respondents in the Personal and Historical Nostalgia groups in the data set from Phase Two: Study One. The final studies mirrors each other, with the exception that it will be under either the Personal or Historical Nostalgia context.

No specific hypotheses exist for Study Two and Three as they have been developed as research questions resulting from Phase Two: Study One, although expectations and discussion of the results are based on, and reference, the literature and theories.

# 6.1 Phase Two: Study One – Personal vs. Historical Nostalgia

The key focus of this research is to compare the effects of Personal and Historical Nostalgic reactions, as a result of advertising stimulus. Significant differences in important consumer behaviour reactions would indicate a need for practitioners and academics alike to ensure they approach nostalgic appeals as being of a specific type, rather than treating the responses as simply 'nostalgia'. Respondent characteristics are explored first and are followed by the hypotheses discussed in Chapter 3.

# **6.1.1 Profile of respondents**

The total usable number of respondents experiencing Personal Nostalgia was 514. The Historical Nostalgia group was comprised of 292 valid responses. The mean age of the personal nostalgic group was 20.55, and the historical 20.42. The personal group had 47.5% males, 52.5% female, and the historical group 49% males, 51% female. Finally, a t-test showed no significant difference in age between the personal (M = 20.55, SD = 1.96) and historical (M = 20.42, SD = 1.93) groups (t(804) = 0.89, p = .37).

## **6.1.2** Hypothesis 1: Cognitive reactions

Hypothesis 1 deals with the changes in cognition expected in respondents when experiencing either Personal or Historical Nostalgia. A summary of these results can be seen at Table 6-1. Complete analysis from SPSS is at Appendix N. Results of analysis are discussed within the context of each part of:

H1: Compared to respondents experiencing a Historical Nostalgic reaction, respondents experiencing a Personal Nostalgic reaction will significantly experience:

## a) a greater number of personal nostalgic thoughts - ACCEPTED

Those experiencing Personal Nostalgia experienced a significantly (p < .05) higher number of personal nostalgic thoughts (M = 3.71, SD = 3.56) than those experiencing Historical Nostalgia (M = 0.60, SD = 1.40) (t(735.37) = 17.55, p = .000).

This result is a positive indication of the appropriateness of the advertisements used and scales developed in Phase One of this research. This shows us that those indicated as experiencing Personal Nostalgia by the scale do in fact have a higher numbers of personal nostalgic related thoughts. The result of this hypothesis, in combination with H<sub>1</sub>b), also indicated distinctly different thoughts occurring in those experiencing Personal Nostalgia as opposed to Historical Nostalgia. This supports the hypothesis underpinning the research that different cognitive responses are occurring under each specific type of nostalgic response. Specifically we can say that it seems respondent are drawing on their own 'personal connections' (see Krugman 1967) or 'autobiographical' memory (e.g. Brewer 1986; Neisser 1988). This alone signifies that the purpose of this research, that is, to distinguish Personal and Historical Nostalgia as separate appeals not only theoretically, but also to provide academic and managerially sound reasons for this to happen, is met at least in this circumstance. Knowing that respondent's thoughts are significantly different between the two nostalgic groups is likely to have major implications for marketers employing nostalgic appeals. Of course, the magnitude of these changes in terms of implications will be understood in perspective upon conclusion of all hypotheses.

# b) a smaller number of historical nostalgic thoughts - ACCEPTED

Historical Nostalgia group experienced a significantly (p < .05) higher number of historical nostalgic thoughts (M = 2.17, SD = 2.17) than those experiencing Personal Nostalgia (M = 0.34, SD = 0.87) (t(345.76) = -13.80, p = .000).

As discussed in similarity with H<sub>1</sub>0, this result shows that those indicated as experiencing Historical Nostalgia as a result of the advertising appeal they were exposed to do in fact have a higher number of Historical Nostalgia based thoughts. This shows that not only do those experiencing Personal Nostalgia have a significant increase in personal thoughts, but also that those respondents experiencing Historical Nostalgia have a significant increase in a nostalgic based thought that are not personal; namely historical instead. The cognitive response in this case being based more on 'collective' memory (Halbwachs 1950; 1992). This is also a good indication that the scale used to separate the groups is reliable.

# c) a greater proportion of personal nostalgic thoughts to total thoughts - ACCEPTED

Those experiencing Personal Nostalgia experienced a significantly (p < .05) greater proportion of nostalgic thoughts to total thoughts (M = 0.51, SD = 0.37) than those experiencing Historical Nostalgia (M = 0.09, SD = 0.19) (t(796.64) = 21.23, p = .000).

This result provides some indication of the salience of thoughts being produced as respondents felt Personal Nostalgia, in addition to the suitability of the advertisement and scale used. A graphical representation, similar to that produced by Muehling and Sprott (2004) in their study of 'unified' vs. non-nostalgic appeals, which indicates the salience of the thoughts experienced under this condition was conducted and can be seen at Section 6.1.2.1. Sujan, Bettman, and Baumgartner (1993) also found that advertisements that encourage retrieval of autobiographical memories evoke more thoughts about those experiences.

# d) a smaller proportion of historical nostalgic thoughts to total thoughts -ACCEPTED

Those experiencing Personal Nostalgia experienced a significantly (p < .05) smaller proportion of historical nostalgic thoughts to total thoughts (M = 0.05, SD = 0.14) than those experiencing Historical Nostalgia (M = 0.33, SD = 0.28) (t(370.68) = -16.11, p = .000).

Similar to the result in  $H_1c$ ), this shows that the proportion of historical nostalgic thoughts increases in those experiencing Historical Nostalgia. This indicates the power and salience of such thoughts. Again, Section 6.1.2.1 is of useful in showing this reaction visually.

## e) an increase in positively valenced personal nostalgic thoughts - ACCEPTED

Those experiencing Personal Nostalgia experienced significantly a (p < .05) higher positively valenced set of personal nostalgic thoughts (M = +2.97, SD = 3.15) than those experiencing Historical Nostalgia (M = +0.44, SD = 1.11) (t(701.05) = 16.49, p = .000).

This result indicates that not only are personal nostalgic thoughts more common under the personal nostalgic reactions, but also that these thoughts are significantly more positive in their nature. This supports the reviewed literature (e.g. Belk 1990; Davis 1979; Holbrook and Schindler 1991; Muehling and Sprott 2004; Stern 1992) in that nostalgic responses are generally considered to be of a positive / pleasant nature. A higher level of net positive affect in adverts encouraging autobiographical responses compared to advertisements not encouraging such memory retrieval was also found by Sujan, Bettman, and Baumgartner (1993).

## f) a decrease in positively valenced historical nostalgic thoughts - ACCEPTED

Those experiencing Personal Nostalgia experienced significantly a (p < .05) lower positively valenced set of personal nostalgic thoughts (M = +0.21, SD = 0.68) than those experiencing Historical Nostalgia (M = +1.36, SD = 1.65) (t(349.04) = -11.34, p = .000).

As per  $H_1e$ ), the historical nostalgic group also experienced more positively valenced historical thoughts than the Personal Nostalgia group. This indicated that both Personal and Historical Nostalgia are generally positive / pleasant reactions, but that the type of the valenced thought is dependent on the nostalgic response type experienced.

## g) a greater number of total thoughts - REJECTED

Those experiencing Personal Nostalgia did not experience a significantly greater number of total thoughts (M = 6.73, SD = 3.07) than those respondents experiencing a Historical Nostalgia based response (M = 6.42, SD = 2.73) (t(804) = 1.43, p = .15).

This result indicates that the type of nostalgia being experienced does not significantly affect the number of thoughts in general, but rather the type or subject of the thoughts (as evidenced by  $H_1a$ , b, i). This result is reminiscent of Muehling and Sprott's (2004) study which found that those experiencing nostalgia, although in this case using a unified nostalgia advertising appeal in comparison to a nonnostalgic appeal, did not produce a higher number of thoughts in general than the non-nostalgic appeal, but instead prompted a certain type of thought, as is the case in this study.

## h) a more positively valenced set of thoughts - ACCEPTED

Respondents indicated as feeling Personal Nostalgia experienced a significantly (p < .05) more positively valenced set of thoughts (M = +4.43, SD = 3.41) than those experiencing Historical Nostalgia (M = +3.24, SD = 3.07) (t(804) = 4.90, p = .000).

The previous hypothesis exploring nostalgic thoughts have shown that there has been a more positively valenced set of thoughts occurring in-sync with the form of nostalgia being felt. However, the finding of this hypothesis is of significance as it shows that not only does Personal Nostalgia result in positive personal nostalgic thoughts, but such a response also changes the valence of the entire cognitive set in respondents. This hypothesis makes no distinction between nostalgia, ad-execution, brand / message related or even miscellaneous thoughts, but we still see a significantly more positive cognitive response in the subjects. This generally positive reaction supports the literature that indicated that those experiencing positive nostalgia, especially those of an autobiographical nature, might transfer these feelings to other responses (in this case, other thoughts). This transfer affect of positive personal nostalgic reactions on to overall thoughts may have lead-on effect to emotions, attitudes, and intentions (as explored in later hypotheses). Essentially it indicated Personal Nostalgia as having a different (in this case, more positive) affect.

## i) fewer brand / message-related thoughts - ACCEPTED

Those experiencing Personal Nostalgia experienced significantly (p < .05) fewer brand / message-related thoughts (M = 0.79, SD = 1.19) than those experiencing Historical Nostalgia (M = 1.01, SD = 1.25) (t(535.77) = -2.90, p = .004).

This supports the literature (e.g. Sujan, Bettman, and Baumgartner 1993) in showing that personal nostalgic reactions, which are generally more salient and autobiographical in nature than historical, result in a decrease in thoughts about the brand / message, likely due to a combination of the personal thoughts being more salient and thus occurring in place of other thoughts, showing them as somewhat of a distraction to other cognitive subjects. This is a possible problem for products and brands wishing to employ Personal Nostalgia, but who still desire viewers to concentrate on the message being divulged.

# i) no change in ad-execution related thoughts - REJECTED

Those experiencing Personal Nostalgia did actually experience significantly less adexecution related thoughts (M = 1.65, SD = 1.96) compared to those experiencing Historical Nostalgia (M = 2.32, SD = 2.16) (t(804) = -.32, p = .751).

This indicates type of nostalgia experienced affects not only brand / message thoughts and nostalgic related thoughts, but also ad-execution related thoughts. This is possibly similar to the concern of researchers (e.g. Sujan, Bettman, and Baumgartner 1993) that by increasing autobiographical memories, consumers will think less about the brand and messaged portrayed in the advertisement (as per H<sub>1</sub>i)). This result could signify less need for using celebrities, special effects and other ad execution related stimulus when using personal as opposed to Historical Nostalgia as consumers spend less time cognitively processing these elements anyway due to their concentration being on their Autobiographical Memory process instead.

Section 6.1.6 will discuss these results in summary with the remaining hypotheses later in this Chapter.

Table 6-1: Summary of Hypothesis One Results

Hypothesis 1 (Personal vs. Historical)	Accept / reject
a) a greater number of personal nostalgic thoughts	Accepted
b) a smaller number of historical nostalgic thoughts	Accepted
c) a greater proportion of personal nostalgic thoughts to total thoughts	Accepted
d) a smaller proportion of historical nostalgic thoughts to total thoughts	Accepted
e) an increase in positively valenced personal nostalgic thoughts	Accepted
f) a decrease in positively valenced historical nostalgic thoughts	Accepted
g) a greater number of total thoughts	Rejected
h) a more positively valenced set of thoughts	Accepted
i) fewer brand / message-related thoughts	Accepted
j) no change in ad-execution related thoughts	Rejected

# 6.1.2.1 Observations on the salience of thoughts

Following a process undertaken in Muehling and Sprott (2004), Figure 6-1 and Figure 6-2 provides a graphical representation of participant's thought processes during ad exposure under each nostalgic reaction. We can see even visually that those experiencing Personal Nostalgia tended to have more personal nostalgic thoughts than any other over the first 10 thoughts experienced. Under the historical reaction group however, historical nostalgic thoughts occurred more frequently than other only over the first three thoughts. This indicates that evoking Personal Nostalgia seems to result in a clear tendency for respondents to have personal nostalgic thoughts more than Historical Nostalgia causes historical nostalgic thoughts.

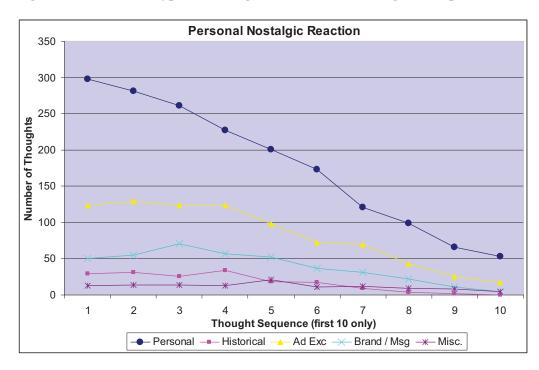


Figure 6-1: Order & Types of Thoughts in Personal Nostalgia Group

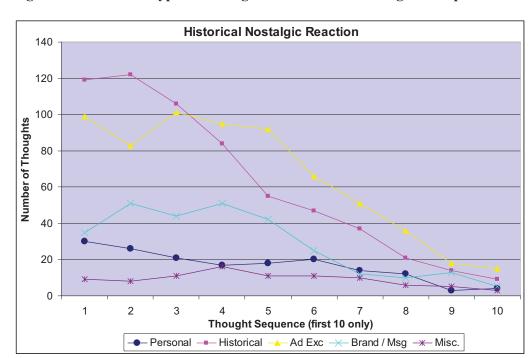


Figure 6-2: Order & Types of Thoughts in Historical Nostalgia Group

However, is should be noted that even those respondents indicated as experiencing Personal Nostalgia may have some historical nostalgic thoughts, and vice-versa. As such, it is worthwhile to view these figures again, although with the personal and historical nostalgic thoughts taken as a combined score. Figure 6-3 and Figure 6-4 show these results. We see that the results under the Personal Nostalgia group remain relatively unchanged. Very few historical nostalgic thoughts occur throughout the first 10 thoughts examined. However, the combined nostalgic thoughts of those in the Historical response group indicate nostalgic thoughts (combined) to be most prevalent over the first four thoughts, rather than just three. This indicates to some degree the tendency of respondents to begin to think about their own nostalgic experiences (Personal Nostalgia using Autobiographical Memory) when feeling Historical Nostalgia more so than those already feeling Personal Nostalgia begin to think about historical nostalgic thoughts. Basically, this is an indication of the salience of Personal as opposed to Historical Nostalgic reactions, as people show a tendency to want to relate the reactions they are experiencing back to themselves.



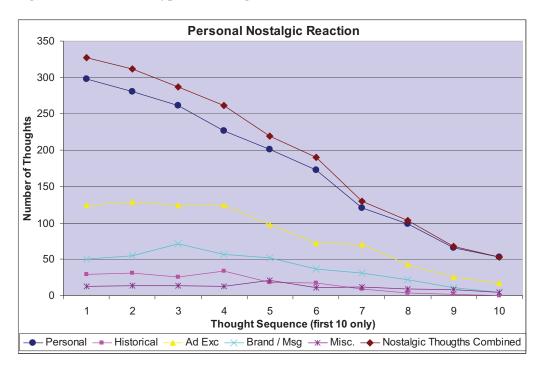
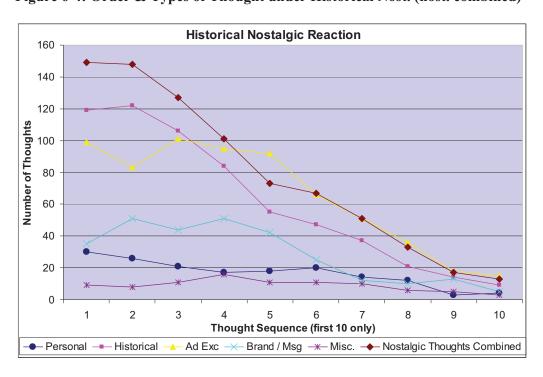


Figure 6-4: Order & Types of Thought under Historical Nost. (nost. combined)



# **6.1.3 Hypothesis 2: Emotions**

As discussed in Section 3.5, this hypothesis will explore the changes in emotions that are common to both nostalgic reactions as revealed by exploratory factor analysis. However, it should be noted that if the two reactions are explored independently of each other, there might be emotions revealed that are exclusive to one of the other response. This will be examined in the research question exploring the nostalgic types independently of each other in Phase Two: Test Two and Three. However, for the purpose of Test One, the research question is to compare the two nostalgic responses and as such we will examine the emotions common to both groups in this hypothesis.

An exploratory factor analysis (EFA) revealed five distinct emotions. The EFA can be seen at Table 6-2. These five components were acceptable in terms of Eigenvalues (>1) and the KMO and Bartlett scores (as seen in the table). The fifth emotion component does have a Cronbach's alpha score that could be considered low (0.57), however, viewing the items and the emotional component as a whole, we would expect this to be an important inclusion for nostalgic testing, and as such, it was kept for analysis.

As discussed previously, it was unknown what the emotions revealed would be when exploring respondents that have felt varying levels of personal and / or Historical Nostalgia. However, it seems that the common emotions of 'Upbeat', 'Warm', and 'Negative' (as seen in Burke and Edell 1989) were evident. Likewise, the emotions are also similar to Holak and Havlena's (1998) research that revealed emotions under a unified nostalgic response (those emotions being Tender, Irritation, Elation, Loss, Fear, and Serenity).

The following research explores differences in these emotions between the two nostalgic type response groups and draws conclusions based on the literature. A summary of these emotions and their significant difference (if any) can be seen at Table 6-3. Full SPSS output results can be seen at Appendix O.

Table 6-2: Emotions Common to Personal and Historical Nostalgia

# **Rotated Component Matrix(a)**

	Component				
	1	2	3	4	5
Annoyed	.822				
Irritated	.772				
Disgusted	.727				
Skeptical	.720				
Angry	.678				
Excited		.844			
Active		.810			
Playful		.734			
Entertained		.707			
Regretful			.763		
Sorrowful			.735		
Remorseful			.728		
Helpless			.615		
Peaceful				.739	
Restful				.720	
Calm				.717	
Innocent					.745
Sentimental					.695
Tender					.646
Cronbach's α	.83	.80	.75	.62	.57
Eigenvalues (% of Variance)	23.31	17.31	8.31	6.60	5.81
KMO	.839				
Bartlett	Approx. Chi-squ Df.= 171,		hi-squared = : 171, Sig.= .		

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

 $<sup>^{\</sup>star\star}\text{NOTE}$ : Suppressed absolute values < .30 for clarity. Complete FA with no suppression can be seen at Appendix P.

Component Number	Emotion
1	Negative / Irritation
2	Upbeat / Elation
3	Loss / Regret
4	Serenity / Calm
5	Warm / Tender

a Rotation converged in 6 iterations.

## Emotion: Negative / Irritation

In comparing the personal nostalgic group (M = 1.77, SD = 0.93) with the historical nostalgic group (M = 1.78, SD = 0.94) we see no significant change (p > .05) in the negative / irritation emotion (t(804) = -.20, p = .840).

The existence of a 'negative' emotional component is commonplace in studies on emotion (e.g. Burke and Edell 1989; Derbaix 1995; Holak and Havlena 1998; Izard 1977). This is not to say that this emotion would not be significantly different between nostalgic and non-nostalgic adverts (in fact, we would hypothesis that it would be the case), as it should be noted that the mean score of both the groups for this emotion were low on comparison to other scale results, which could indicate that both nostalgic responses result in a low level of this emotion, but without a non-nostalgic comparison this is impossible to statistically address in this case. In regards to the focus of this study however, we can see that the level of this emotions did not change between the two types of nostalgic response. In other words, Personal Nostalgia reactions compared to Historical Nostalgia does not change the level of negative emotions. In examining the items it seems that these are negative emotions not related to nostalgia, or more accurately, the possibility of negative nostalgia (or bittersweet response) that could occur under each nostalgic response type.

## Emotion: Upbeat / Elation Emotion

A significant (p < .05) increase in the upbeat / elation emotion is seen in the personal group (M = 4.00, SD = 1.27) as opposed to the historical group (M = 3.57, SD = 1.15) (t(804) = 4.72, p = .000).

This result supports the premise of this study in that Personal Nostalgia reactions, with more personal / autobiographical connections (previously discussed at length), results in more positive reactions than Historical Nostalgia, giving some indication of the valence of Personal Nostalgia reactions compared to Historical. This emotion seems to be positive in general terms and not related to any particular nostalgic response. This emotional result is reminiscent of H<sub>1</sub>h, which found that thoughts in general (not specifically of any nostalgia, ad-execution, or otherwise) were more positively valenced in the Personal Nostalgia response group than the Historical.

This result is significant to our knowledge on nostalgia as it possibly indicates that emotional and cognitive responses are in sync under nostalgic influence. Existence of a Positive / Elation emotion is also very common in emotion literature (e.g. Burke and Edell 1989; Holak and Havlena 1998; Watson, Clark, and Tellegen 1988).

## Emotion: Loss / Regret

A significant (p < .05) increase in the loss / regret emotion is seen in the personal group (M = 2.63, SD = 1.16) as opposed to the historical group (M = 2.43, SD = 1.20) (t(804) = 2.23, p = .026).

Like the upbeat / elation emotion, we see the personal nostalgic experiencing more loss / regret as a result of the more personalised connection being experienced. The loss / regret emotion could be considered as a negative response as people may not enjoy the feelings of sadness associated with the response. However, one of the common view of nostalgia is that it is 'bittersweet' (Baker and Kennedy 1994; Havlena and Holak 1991; Hirsch 1992; Holak and Havlena 1992, 1998), so even though this emotion may not be ideal under alternative advertising appeals, under the nostalgia appeal it is expected, and perhaps even useful, as an increase in loss / regret emotions (shown to be more prevalent under personal rather than Historical Nostalgia) could indicate a possible avenue for marketers if they provide respondents with some way to 'fill the void' or reconnect / recapture the scenario the respondent is feeling regret for.

#### Emotion: Serenity / Calm

In comparing the personal nostalgic group (M = 5.00, SD = 1.08) with the historical nostalgic group (M = 4.96, SD = .98) we see no significant (p > .05) change in the serenity / calm emotion (t(804) = .48, p = .631).

As was the case with the negative / irritation emotion, this is not to say that this emotion would not be significantly different between nostalgic and non-nostalgic adverts (in fact, we would hypothesis that it would be the case), but simply that the level did not change between the two types of nostalgic response. However, similar to the negative / irritation emotion, we can see that the mean score for both groups are in this case are higher than the mid range of the 7 point scale, and serenity / calm

is probably not an emotion that we would normally expect to be so prevalent in standard / non-nostalgic advertising. However, without a direct similar comparison to a non-nostalgic advert using these items no accurate statistical inference can be made. However, the comparison between the two nostalgic groups is valid and shows no significant difference. Serenity / Calm emotions have been seen in previous studies, including studies on nostalgic appeals (e.g. Holak and Havlena 1998).

# Emotions: Warm / Tender

Significant increase in warm / tender emotion is seen in the Personal (M = 4.66, SD = 1.14) compared to the Historical Nostalgia response group (M = 4.38, SD = 1.05) (t(804) = 3.42, p = .001).

This emotion is a commonly discussed response to nostalgia, with the 'warmth' dimension of feeling appearing through literature on both nostalgic and non-nostalgic responses to advertising appeals (Aaker, Stayman and Hagerty 1986; Edell and Burke 1987; Holak and Havlena 1998; Mano 1991). The items making up this component have also been used in a measure of a 'Love' emotion by Richins (1997). A love emotion was also indicated by Shaver et al. (1987). Personal Nostalgia's ability to significantly effect warm / tender emotions is an argument for its use over historical as it may transfer positive effects on other aspects of consumer behaviour.

Table 6-3: A Summary of Emotions Under Personal vs. Historical Nostalgia

Emotions	Significance / Result
Negative / Irritation	No change between nostalgic types
Upbeat / Elation	Significantly more in Personal Nostalgia Response group
Loss / Regret	Significantly more in Personal Nostalgia Response group
Serenity / Calm	No change between nostalgic types
Warm / Tender	Significantly more in Personal Nostalgia Response group

In summary, H<sub>2</sub> is considered 'partially accepted' as respondents experiencing the Personal Nostalgia reaction did experience a higher intensity of emotions, but not in all emotional components identified. Further research on emotions between the type nostalgic types under varying conditions is warranted.

# 6.1.4 Hypotheses 3 & 4: Attitudes and Intentions

Hypotheses 3 and 4 deal with the changes in attitudes and purchase intention likely to be experienced by respondents when experiencing either Personal or Historical Nostalgia. A summary of these results appears at Table 6-4. Results of analysis are discussed within the context of each hypotheses result. Hypotheses are restated for convenience. Full SPSS output can be seen at Appendix Q.

 $H_3$ : Compared to respondents experiencing a Historical Nostalgia reaction, respondents experiencing a Personal Nostalgia reaction will experience at the time of ad exposure:

#### a) more favourable attitudes toward the advert

Those experiencing Personal Nostalgia experienced significantly (p < .05) more favourable attitudes toward the advert (M = 7.20, SD = 1.44) than those experiencing Historical Nostalgia (M = 6.83, SD = 1.50) (t(804) = 3.49, p = .001).

This shows that those respondents experiencing Personal Nostalgia reactions also have a significantly more positive attitude towards the advert. This supports the hypothesis based on the literature indicating that an increase in autobiographical response / memory results in more positive / salient responses (e.g. Belk 1990; Bettman 1979; Craik and Lockhart 1972; Davis 1979; Stern 1992; Wright 1980) which may include affects on attitudes (e.g. Edell and Burke 1987; Fishbein and Ajzen 1975; Mitchell and Olson 1981). This hypothesis is reminiscent of the result and discussion in H<sub>1</sub>e) and H<sub>1</sub>h) on positive cognitive responses due to Personal Nostalgia. This is a significant managerial implication as creating a more positive attitude towards the advert is a common reaction that is strived for in advertising in general. Although knowledge on the effect of 'unified' nostalgia on attitude towards the advert is not new, this hypothesis makes a significant contribution by empirically showing the difference between the effect of specifically Personal and Historical nostalgic reactions on attitude towards the advert. This has not been previously established.

#### b) more favourable attitudes toward the advertised brand

Those experiencing Personal Nostalgia experienced significantly (p < .05) more favourable attitudes toward the advertised brand (M = 6.84, SD = 1.30) than those experiencing Historical Nostalgia (M = 6.61, SD = 1.38) (t(804) = 2.36, p = .018).

As was the case in H<sub>3</sub>0, this result also has major implication for practitioners as it shows attitude towards the brand to be positively effected by personal as compared to Historical Nostalgia. Brand liking is a common and important reaction for marketers and brand managers alike, and the ability of nostalgia to affect this has been previously indicated in research. However, through this research we can now better understand the difference between personal and historical appeals, with this result indicating Personal Nostalgia to be more powerful in affecting positive attitude towards the brand.

*H*<sub>4</sub>: Compared to respondents experiencing a Historical Nostalgia reaction, respondents experiencing a Personal Nostalgia reaction will experience at the time of ad exposure an increase in intention to purchase the brand.

Those experiencing Personal Nostalgia experienced a significantly (p < .05) more positive intention to purchase the brand (M = 6.47, SD = 1.81) than respondents experiencing Historical Nostalgia (M = 6.15, SD = 2.09) (t(804) = 2.22, p = .026).

Arguably the most important implication in a practical sense, this result indicates that Personal Nostalgia results in a significant increase in intention to purchase the brand portrayed in the advertisement as compared to Historical Nostalgia reactions. Although it is widely accepted that intention may not mean action in reality, this is still an important and useful indication for marketers weighing the benefits of attempting to create either Personal or Historical reactions in their customers.

Table 6-4: Summary of Hypotheses Three and Four Results

Hypotheses 3 & 4 (Personal vs. Historical)	Accept / reject
H₃a) more favourable attitudes toward the advert	Accepted
H <sub>3</sub> b) more favourable attitudes toward the advertised brand	Accepted
H₄a) increased intention to purchase the brand	Accepted

# 6.1.5 Hypothesis 5: Models and Mediation

Hypothesis five is concerned with extending the current DMH and examining the current discussed pathways (see Section 3.8 for underpinnings and discussion). The model is run under the two nostalgic response group conditions and comparison undertaken.

Under both conditions the original model (Figure 6-5) provides unacceptable fit. The personal response group results included the following; Chi-square = 369.85, Degrees of freedom = 87, Probability level = .000, GFI = .909, AGFI = .875, RMSEA = .080, SRMR = .06. Historical condition results; Chi-square = 267.70, Degrees of freedom = 87, Probability level = .000, GFI = .884, AGFI = .840, RMSEA = .084, SRMR = .06.

e5

e6

Figure 6-5: Original SEM model for Nostalgia

As is the case with structural equation modelling, re-specification of the model within theoretical justification is a necessary step. A number of areas were identified to improve the model. The first clear result was that in the personal response group the pathway from historical nostalgic thoughts to attitude towards the advert was not

e7

e8

significant (Critical Ratio = 0.79, p = .43). Conversely, in the historical response group the pathway from personal nostalgic thoughts to attitude towards the advert was not significant (Critical Ratio = 1.63, p = .10). This result immediately signifies our main objective for this model; it shows that dependent on the nostalgic response, respondent's cognitive nostalgic responses are in fact distinctly different and effect other consumer behaviour responses (in this case attitude towards the advert) independently of one another. This alone suggests that the current 'unified' view taken of nostalgia that does not make this separation also lacks the rigour and predication ability that separating the nostalgia responses provides. However, in order to ensure that this result was not due to any other misspecification in the model, these pathways were left for the time being while other avenues of the model were explored.

In examining the modification indices, in both cases the error of one of the items measuring Aad was causing some problems. Suggestion for the error variance to be correlated with a number of other items in the model ranged in the personal condition from Modification index of Covariance's of 22.38 to 59.26 and Estimated Parameter Changes of .37 to .46 and in the historical M.I. for this item's error ranged from 5.35 to 21.87 with Estimated Parameter Changes of .29 to .39. This was the largest indicator and, after viewing the item, removal was considered to be theoretically justified. The Cronbach's alpha for the Aad measurement under each condition was still acceptable with 0.88 (personal) and 0.85 (historical). This assisted greatly in the fit of the model. Personal group results; Chi-square = 205.53, Degrees of freedom = 74, Probability level = .000, GFI = .945, AGFI = .922, RMSEA = .059, SRMR = .05. Historical group results; Chi-square = 155.64, Degrees of freedom = 74, Probability level = .000, GFI = .933, AGFI = .905, RMSEA = .062, SRMR = .06.

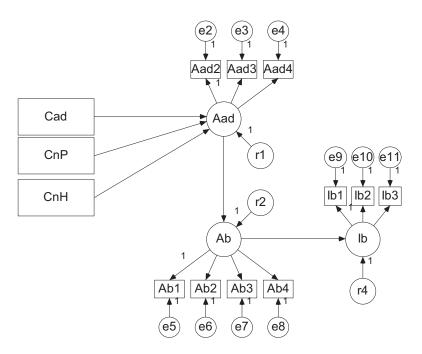
We then examined the regression weights in the respecified model. In both conditions the pathway from Cb to Ab was not significant (personal: Critical Ratio = 2.91, p = .004, historical: Critical Ratio = 0.42, p = .68). This result is reminiscent of the result found in MacKenzie, Lutz and Belch (1986), which also found that Cb did not influence Ab. They suggested that this finding was somewhat disturbing considering the weight of previous literature supporting the result, but suggested that

this could be due to the Cb measure, or that the respondent was using a more peripheral process, as opposed to the 'peripheral and central intertwined' process that the DMH suggests. This result is a genuine possibility under nostalgic appeals as nostalgia is often discussed as an intense emotion, rather than a cognitive or logical response. MacKenzie, Lutz and Belch (1986) also suggest that this is also possibly due to the 'low-involvement' of the product and the fact that there could be a predominance of 'affect' over 'cognition' (suggested by Zajonc 1980). Again, this is a very likely scenario under the nostalgic appeal conditions as the brand / product (Kodak) could be considered low involvement. As such, this pathway was removed, and models re-examined. Results are as follows; Personal group: Chi-square = 209.31, Degrees of freedom = 75, Probability level = .000, GFI = .944, AGFI = .922, RMSEA = .059, SRMR = .05. Historical group: Chi-square = 155.81, Degrees of freedom = 75, Probability level = .903, AGFI = .906, RMSEA = .061, SRMR = .06.

Again the model was run in the two conditions and the regression weights in the model were examined. In both conditions the pathway from Aad to Cb was not significant (personal: Critical Ratio = 3.00, p = .003, historical: Critical Ratio = 2.61, p = .009). The DMH includes this link in recognition of the literature that has argued in favour of 'persuasion cues' as enhancing message acceptance. However, the lack of a significant effect from Aad to Cb is not entirely new. This result is also mirrored in all three of the alternative models being the 'Affect Transfer Hypothesis', the 'Reciprocal Mediation Hypothesis', and the 'Independent Influence Hypothesis', all which were previously suggested by a range of academics and compared to the DMH in MacKenzie, Lutz and Belch (1986). MacKenzie, Lutz and Belch (1986) discussed the inclusion of this pathway as leading to the 'relative superiority of the DMH over the ATH [affect transfer hypothesis]'. However, under the nostalgic response condition in this research it seems this is not the case. As such this pathway was removed, as was the thoughts about the brand measure, as in this specific situation it did not contribute to any finding in the model. This is a valid possibility as the scenario has so far been show to be relying on peripheral processing and can be considered a low involvement product / scenario. It is possible that the nostalgic

responses experienced by the consumers are resulting in fewer thoughts about the brand and thus influence of these thoughts on attitude towards the brand is not occurring. It is likely that a high involvement may not have this result, but it is a realistic case in this context. Results of the model follow. The respecified model to this point can be seen at Figure 6-6. Personal group: Chi-square = 177.14, Degrees of freedom = 63, Probability level = .000, GFI = .949, AGFI = .927, RMSEA = .059, SRMR = .05. Historical group: Chi-square = 130.51, Degrees of freedom = 63, Probability level = .000, GFI = .939, AGFI = .912, RMSEA = .061, SRMR = .06.

Figure 6-6: Respecified SEM Model (incomplete)



Once again, we examine the pathway from historical nostalgic thoughts in the personal condition and personal nostalgic thoughts in the historical condition. The insignificance of the pathways remain with historical nostalgic thoughts to Attitude towards the advert C.R. = 0.50, p = .61 in the personal condition and Personal nostalgic thoughts to Attitude towards the advert C.R. = 0.81, p = .42 in the historical condition. As discussed earlier in this section, this is an indication of the difference between the two nostalgic types and support the objective and expectation of this hypothesis. At this point the pathways and corresponding nostalgic thought was removed from the model, now resulting in two separate models for each nostalgic

response group. The personal nostalgic group model can be seen at Figure 6-7 and results are: Personal group: Chi-square = 139.14, Degrees of freedom = 52, Probability level = .000, GFI = .957, AGFI = .935, SRMR = .05, TLI = .969, RMSEA = .057. All pathways are significant. The Historical group model is seen at Figure 6-8 and results are: Chi-square = 108.73, Degrees of freedom = 52, Probability level = .000, GFI = .943, AGFI = .915, SRMR = .05, TLI = .968, RMSEA = .061.

At this point we have two models that both have statistics indicated good fit, with the exception of the p value. However, as discussed by Hox and Bechger (1998), all goodness of fit measures are some function of the chi-square and the degrees of freedom, and chi-square can be sensitive to issues such as sample size. The 'relative' or 'normed chi-square' has been suggested as an alternative when a reasonable sample size (i.e. > 200) and good approximate fit, as indicated by other fit tests, exists (Garson 2008). For this test, Carmines and McIver (1981, p. 80) state that relative chi-square should be in the 2:1 or 3:1 range for an acceptable model. Kline (1998) says 3 or less is acceptable. For the personal group the normed chi-square is 2.68 and for the historical, 2.09. Both are within this acceptable range, and in view of the other goodness of fit measure, it is suggested that these models are showing acceptable fit.

At this point it is evident that some possible conclusions can be made. First, we see that under this specific scenario, it seems that not all the pathways in the DMH hold. These results are not new to this study, as discussed, and are likely due to the level of involvement and significant increase in peripheral processing experienced by the respondents under the nostalgic appeal condition. It is also evident that the two nostalgic conditions differ in the thoughts experienced as evidenced by the CnP and CnH pathways discussed. The mediations were also tested as adding additional pathways between the measures did not improve the model and were not significant.

The squared multiple correlations are the final issue in examining the model. They are a concern, as they are actually quite low. Both models in entirety showing standardized estimates appear at Figure 6-7 and Figure 6-8. As can be seen, the Aad measure is only .09 in the Personal group and .16 in the Historical, indicating that it

is estimated that the predictors of Aad (Cad and CnP) explain only 9 (or 16) percent of its variance, meaning the error variance of Aad is approximately 91 (or 84) percent of the variance of Aad itself. This is in fact low and suggests that although these two predictors of Aad are significant, there is a serious need for additional predictors. However, the model does indicate that Aad in fact helps to predict Ab, although this is also a little low for comfort (.18 in the personal and .24 in the historical), but that Ab is a relatively good predictor of Ib (.39 and .49 respectively).

These results suggest then that although the model/s explored in this study are of interest and successful in their objectives of testing existing hypothesized connection between the component and in indicating the clear difference between the two nostalgic appeals, there is much more work needed to be done before it could be suggested that models or the two nostalgic appeals are acceptable. For example, Geuens and De Pelsmacker (1998) discuss that the DMH does not take into account the roles of feelings, and feelings / emotions (e.g. upbeat, negative, and warm) were found to contribute uniquely to Aad, Ab, and beliefs about the brand's attributes by Edell and Burke (1987). These particular feeling are associated with nostalgic responses. Considering the results in this research and the role emotions would play in nostalgic appeals it could be that feelings / emotions are the 'missing indicator' needed to improve the predictability strength of any model exploring reactions under nostalgic appeals.

In terms of the hypothesis being accepted, a summary of the results can be seen at Table 6-5.

**Table 6-5: Summary of Hypothesis Five Results** 

Ца	The following nothways will be significant under the nectalgie of	andition
п <sub>5</sub> а:	The following pathways will be significant under the nostalgic co	ondition.
i.	'Thoughts about the advert' will significantly affect 'Attitude towards the advert'	Accepted
ii.	'Attitude towards the advert' will significantly affect 'Attitude towards the brand'	Accepted
iii.	'Attitude towards the advert' will significantly affect 'Thoughts about the brand'	Rejected
iv.	'Thoughts about the brand' will significantly affect 'Attitude towards the brand'	Rejected
V.	'Attitude towards the brand' will significantly affect 'Intention to purchase the brand'	Accepted
vi.	'Attitude towards the advert' mediates between 'Thoughts about the advert' and 'Attitude towards the brand'	Accepted
vii.	'Attitude towards the advert' mediates between 'Thoughts about the advert' and 'Thoughts about the brand'	Rejected
viii.	'Thoughts about the brand' partially mediates between 'Attitude towards the advert' and 'Attitude towards the brand'	Rejected
ix.	'Attitude towards the brand' mediates between 'Thoughts about the brand' and 'Intention to purchase the brand'	Rejected
X.	'Attitude towards the brand' mediates between 'Attitude towards the advert' and 'Intention to purchase the brand'	Accepted
H <sub>5</sub> b:	The following pathways will be significant under the nostalgic co	ondition
i.	'Personal nostalgic thoughts' will significantly affect 'Attitude towards the advert'	Accept in personal condition only
ii.	'Historical nostalgic thoughts' will significantly affect 'Attitude towards the advert'	Accept in historical condition only
iii.	'Attitude towards the advert' will mediated between 'Personal nostalgic thoughts' and 'Attitude towards the brand'	Accept in personal condition only
iv.	'Attitude towards the advert' will mediated between 'Personal nostalgic thoughts' and 'Thoughts about the brand'	Rejected
V.	'Attitude towards the advert' will mediated between 'Historical nostalgic thoughts' and 'Attitude towards the brand'	Accept in historical condition only
vi.	'Attitude towards the advert' will mediated between 'Historical nostalgic thoughts' and 'Thoughts about the brand'	Rejected

Figure 6-7: Personal Nostalgia SEM Model (final)

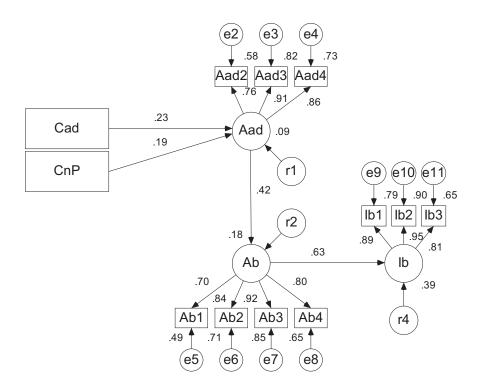
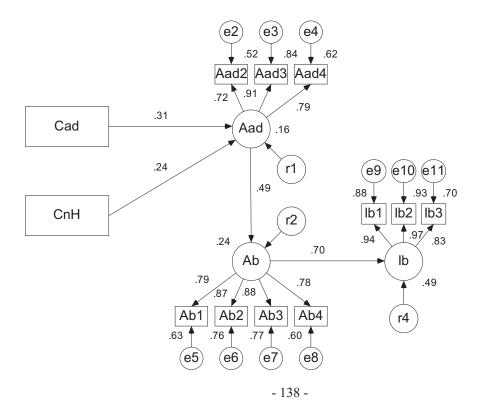


Figure 6-8: Historical Nostalgia SEM Model (final)



# 6.1.6 Conclusion of Study One: Personal vs. Historical Nostalgia Reactions

The results of Study One clearly show that there are significant differences in the consumer's cognition, emotions, attitudes, and intention as a result of the specific nostalgic reaction type educed by advertising appeals.

In terms of cognitive reactions  $(H_1)$  it is evident that under those experiencing Personal Nostalgia reactions (as opposed to Historical) have significantly more personal nostalgic thoughts  $(H_1a)$ , a greater proportion of personal nostalgic thoughts to total thoughts  $(H_1c)$ , and an increase in positively valence personal nostalgic thoughts  $(H_1e)$ . In a vice-versa scenario, those experiencing Historical Nostalgia experienced these reactions in a Historical Nostalgia context (i.e. significantly more historical nostalgic thoughts and so on)  $[H_1b, d, f]$ . These results indicate a number of points.

First, that the scales developed in Phase One are accurate in their ability to separate consumers experiencing Personal or Historical Nostalgia into meaningful groups. The number of each specific type of nostalgic thought indicates this.

Second, the proportion of each of these thoughts to total thoughts gives an indication of the salience of the thoughts under each nostalgic type response. This is also supported by the graphical representations.

Thirdly, that the type of nostalgia being experienced by these two groups is positively valenced. This is of significance, as negative nostalgia can also exist as respondent remember a time to which they cannot return (all this is not necessarily penitent for marketers). Also on cognitive responses we can see some differences in non-nostalgic related thoughts. The Personal Nostalgia response group experienced a more positively set of thoughts in general (H<sub>1</sub>h), and fewer brand-message related thoughts (H<sub>1</sub>i). These are important reactions to be aware of, as previous to this work it was only hypothesised that Personal Nostalgia reactions would lead to more positively valenced thoughts. This also shows that it is not only nostalgic related thoughts, but all thoughts (including miscellaneous) that are positively affected by Personal Nostalgia reactions (compared to Historical). This gives some indication as

to the power of Personal Nostalgia creating positive reactions that can be transferred to all cognitive reactions. The fewer brand-message related thoughts could indicate a negative affect of Personal Nostalgia as opposed to Historical as some marketers may wish to increase respondents thoughts about the message or brand, but the inclusion of Personal Nostalgia seems to distract consumer thoughts away from such forms of cognition as the personal (and more salient) thoughts are elicited. This could indicate Personal Nostalgia's appropriateness for products purchased on more peripheral cues, but possibly indicates a problem for more centrally processed decision-making.

In terms of emotions (H<sub>2</sub>) it can be seen that where significant changes occurred, it was in terms of an increase of the intensity of the emotion in question under the Personal Nostalgia response condition compared to the Historical. The Upbeat / Elation, Loss / Regret, and Warm / Tender emotions all were significantly higher in the Personal Nostalgia group. This is inline with the literature that indicated that Personal Nostalgia would be more intensely emotional due to the salience of the response (that is, due to its connection with one's personal past). The Negative / Irritation and Serenity / Calm emotion did not seem to change between the two nostalgic types, but this is of course limited to the experience of this study. Other nostalgic appeal advertisements could, for example, affect the negative emotion if the advert is seen to be manipulative or elicits negative nostalgia (for example, someone's personal nostalgic recollection of their time in a war). A distinction between truly negative nostalgia and the bittersweet nostalgic reaction should be made in the future.

The effects on attitudes and intention were clear. Attitude towards the advert, attitude towards the brand, and intention to purchase the brand were all significantly higher in the Personal Nostalgia response group than the Historical. This was inline with the literature discussed in the hypotheses development (Chapter 3) and indicates a significant and major difference between the two nostalgic response types. The implications of these reactions have already been discussed (and significant of the research is explored in Chapter 7), but needless to say, any change in such important

consumer reactions as a result of an advertising response is of clear importance to marketing.

Finally, H<sub>5</sub> successful extended (and respecified) an existing model that incorporates some of the consumer behaviour reactions measured in this research. However, the model used highlighted some deficiencies in the structure and predictors used in the model, indicating the need for future research to be undertaken.

The various consumer responses in this research are consistently explored by other academics and are considered to be of extreme importance to the marketing profession. Additionally, the significance of these results lies in the fact that previous research has not empirically explored nostalgic reactions as two distinct reactions. These results indicate that divergence of the past 'unified' study of nostalgia into Personal and Historical Nostalgia should occur if rigour of predictions and results are desired. The significance of this is further explored in Chapter 7.

# 6.2 Phase Two: Study Two – Personal Nostalgia Intensity

This study explores various consumer behaviour reactions as a result of the level of Personal Nostalgia experienced in those exposed to the adverts containing nostalgic cues. Groups of Low, Mid, or High levels of Personal Nostalgia, as judged by the Personal Nostalgia Scale developed in Phase One, are generated using interquartile range (25%, 50%, 25%).

Comparisons of cognitive reactions, emotions, attitudes, and intentions are undertaken. ANOVA is the most suitable method for this as we are comparing more than two mean scores. However, the decision as to which post-hoc test to use is a little more complex. Field (2005) provides direction as to this matter. When comparing the Low and High ranges the sample size for each group is equal. As such, assuming population variances are not significantly different, Bonferroni's test can be used. Bonferroni's test is said to control any Type I error rate very well and has more power than alternatives (such as Tukey's test) when the number of comparisons is small (Field 2005). It is also a considered to be a conservative test, so any statistical significance found in the study should be secure. However, should Levene's test of variances be significant, then the Game-Howell procedure can be used as it does not assume that population variances are equal (Field 2005). In this scenario, where the test of homogeneity of variances (Levene's) is significant, we will also use the Welch statistic as the F value, which is said to fare well (in comparison to the Brown-Forsythe) except when there is an extreme mean that has a large variance (Field 2005). When the Low and Mid or High and Mid groups are compared however, we are comparing different sample sizes. As such, Bonferroni's test is not suitable. In this case, where Levene's test is significant, the 'Games-Howell' procedure will be used, as it is "...accurate when sample sizes are unequal" (Field 2005, p. 341) and does not assume that population variances are equal. If Levene's is insignificant, then Gabriel's procedure will be used as this procedure can cope with different sample sizes (Field 2005).

As discussed, this research question was undertaken as a result of the findings in Phase Two: Study One, and as such no specific hypotheses exist, although expectations based on the previous literature and theories examined are discussed throughout. As discussed in Section 3.9, the four research questions explore cognition, emotions, attitudes, and intentions. Exploration and discussion is undertaken following the theory and hypotheses developed for the main study. In the interest of clarity, tables are produced thought the discussion showing each group's mean and standard deviation, in addition to indicating any significance between the three ranges.

# **6.2.1 Profile of respondents**

The respondents used are those 514 respondents from the main study data set that were shown to have experience Personal nostalgia reactions as a result of the advertising cues. The number of respondents for each group is as follows; Low group (n = 128), Mid group (n = 258), High group (n = 128). ANOVA showed each group's mean score of the Personal Nostalgia Scale is significantly greater than the lower groups (Table 6-6) (Welch F(2, 262.25) = 1117.50, p < .05). The Cronbach's Alpha for the scale was also acceptable ( $\alpha = 0.89$ ). No significant difference in age was found between the three groups (F(2, 511) = 0.156, p > .05), and Table 6-7 shows the Mean scores for this result.

Table 6-6: Mean of Personal Nostalgia Scale

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	4.56	0.71	$L \rightarrow M H$	sig.
Mid	6.02	0.31	$L \qquad M \rightarrow H$	sig.
High	6.86	0.15	$L \rightarrow \rightarrow \rightarrow H$	sig.

Table 6-7: Mean of Age in Personal Intensity Groups

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	20.50	0.71	$L \rightarrow M H$	n.s.
Mid	20.60	0.31	$L \qquad M \rightarrow H$	n.s.
High	20.50	0.15	$L \rightarrow \rightarrow \rightarrow H$	n.s.

#### 6.2.2 RQ1(a) – Effects on Cognition in Personal Nostalgia

As discussed at length previously, cognition is of obvious importance to marketers. Following the same justifications laid out throughout the research for the Personal vs. Historical argument of Personal Nostalgia being increasingly autobiographical etc., we would also expect changes in consumer response as a result of the level of Personal Nostalgia felt. As no previous studies explore nostalgic reactions independently of each other, in addition to the previous findings in the research indicating that appeals are in fact distinctly different, it is worth exploring the cognitive differences between respondents with Low, Mid, and High levels of Personal Nostalgia. Full SPSS output can be seen at Appendix R. A discussion of results for this question is provided at Section 6.2.3 and in table form at Table 6-18.

## 6.2.2.1 Number of personal nostalgic thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a significant affect on the number of personal nostalgic thoughts when comparison the Low level to Mid and High (Welch F(2, 296.10) = 27.16, p < .05). However, no significant increase was evident between the Mid to High groups, indicating that in this case no significant benefit is received by producing High levels of Personal Nostalgia compared to Mid (although it is not detrimental). Thus meeting the Mid level of intensity is all that is required for a significant affect of the number of personal nostalgic thoughts.

**Table 6-8: Number of Personal Thoughts** 

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	2.64	2.83	$L \rightarrow M H$	sig.
Mid	4.99	3.85	$L \qquad M \rightarrow H$	n.s.
High	5.00	3.28	$L \rightarrow \rightarrow \rightarrow H$	sig.

#### 6.2.2.2 Number of historical nostalgic thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a no significant effect on the number of historical nostalgic thoughts when comparing any group (F(2, 511) = 0.290, p > .05). This shows no tendency for respondents to begin to change in the number of historical nostalgic thoughts regardless of their level of Personal Nostalgia.

Table 6-9: Number of Historical Thoughts

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	0.29	0.72	$L \rightarrow M H$	n.s.
Mid	0.35	0.86	$L \qquad M \rightarrow H$	n.s.
High	0.37	1.03	$L \rightarrow \rightarrow H$	n.s.

#### 6.2.2.3 Proportion of personal nostalgic thoughts to total thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a significant effect on the number of proportion of personal nostalgic thoughts to total thoughts when comparison the Low level to Mid and High (F(2, 511) = 22.74, p < .05). However, no significant increase was evident between the Mid to High groups, indicating that in this case no significant benefit is received by producing High levels of Personal Nostalgia compared to Mid (although it is not detrimental). Thus meeting the Mid level of intensity is all that is required for a significant effect of this response.

Table 6-10: Proportion of Personal Nostalgia Thoughts to Total

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	0.32	0.35	$L \rightarrow M H$	sig.
Mid	0.56	0.36	$L \qquad M \rightarrow H$	n.s.
High	0.58	0.35	$L \rightarrow \rightarrow \rightarrow H$	sig.

#### 6.2.2.4 Proportion of historical nostalgic thoughts to total thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a no significant effect on the number of proportion of historical nostalgic thoughts to total thoughts when comparing any group (F(2, 511) = 0.194, p > .05). This shows no tendency for respondents to begin to have an increase in the proportion of historical nostalgic thoughts to total thoughts regardless of their level of Personal Nostalgia.

Table 6-11: Proportion of Historical Nostalgia Thoughts to Total Thoughts

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	0.05	0.12	$L \rightarrow M H$	n.s.
Mid	0.06	0.14	$L \qquad M \rightarrow H$	n.s.
High	0.06	0.14	$L \rightarrow \rightarrow H$	n.s.

#### 6.2.2.5 Positively valenced personal nostalgic thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a significant effect on the valence of personal nostalgic thoughts when comparison the Low level to Mid and High (Welch F(2, 294.54) = 38.00, p < .05). However, no significant increase was evident between the Mid to High groups, indicating that in this case no significant benefit is received by producing High levels of Personal Nostalgia compared to Mid (although it is not detrimental). Thus meeting the Mid level of intensity is all that is required for a significant effect on this response.

Table 6-12: Positively Valenced Personal Nostalgic Thoughts

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	+1.37	2.01	$L \rightarrow M H$	sig.
Mid	+3.44	3.36	$L \qquad M \rightarrow H$	n.s.
High	+3.62	3.13	$L \rightarrow \rightarrow \rightarrow H$	sig.

#### 6.2.2.6 Positively valenced historical nostalgic thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a no significant effect on the number of valence of historical nostalgic thoughts when comparing any group (F(2, 511) = 0.685, p > .05). This shows no tendency for respondents to begin change in the valence of their historical nostalgic thoughts regardless of their level of Personal Nostalgia.

Table 6-13: Positively Valenced Historical Nostalgic Thoughts

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	+0.18	0.52	$L \rightarrow M H$	n.s.
Mid	+0.20	0.68	$L \qquad M \rightarrow H$	n.s.
High	+0.27	0.82	$L \rightarrow \rightarrow H$	n.s.

#### 6.2.2.7 Number of total thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a significant effect on the number of total thoughts when comparing the Low level to the Mid and High levels (Welch F(2, 292.08) = 9.07, p < .05). However, no significant increase was evident between the Mid to High groups, indicating that in terms of the number of thoughts, no significant benefit is received by producing High levels of Personal Nostalgia compared to Mid (although it is not detrimental). Thus meeting Mid levels of intensity is all that is required for a significant effect in this response.

This increase is likely to be as a result of the increased salience of thoughts and respondents desire to continue to reflect once feeling Personal Nostalgia. The lack of change between the Mid and High groups could signify a 'saturation point' where after Mid level of reaction is achieved, no increase in the number of thought is stimulated (although this is just the number, not the nature of the thoughts at these levels).

**Table 6-14: Number of Total Thoughts** 

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	5.84	2.61	$L \rightarrow M H$	sig.
Mid	7.10	3.31	$L \qquad M \rightarrow H$	n.s.
High	6.89	2.80	$L \rightarrow \rightarrow H$	sig.

#### 6.2.2.8 Positively valenced set of thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a significant effect on the valence of total thoughts when comparison the Low level to Mid and High (F(2, 511) = 26.45, p < .05). However, no significant increase was evident between the Mid to High groups, indicating that in this case no significant benefit is received by producing High levels of Personal Nostalgia compared to Mid (although it is not detrimental). Thus meeting Mid levels of intensity is all that is required for a significant effect in this response.

This increase indicates that the valence of thoughts overall (nostalgic, ad execution, brand / message, and miscellaneous in nature) is effected by the level of Personal Nostalgia experienced, but that there is no change in those experiencing a High compared to Mid level. This result seems to be following a trend in the exploration of thoughts under the three group conditions, signifying an argument for reaching at least a Mid level of Personal Nostalgia to be strong, but with little support for attempting to ensure respondent meet a High level of intensity (although there is no detriment).

Table 6-15: Valence of Thoughts

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	+2.62	3.17	$L \rightarrow M H$	sig.
Mid	+4.92	3.34	$L \qquad M \rightarrow H$	n.s.
High	+5.23	3.16	$L \rightarrow \rightarrow H$	sig.

#### 6.2.2.9 Brand / message-related thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a no significant effect on the number of brand / message related thoughts when comparing any group (F(2, 511) = 0.270, p > .05).

This is an important result to find as  $H_1i$ ) showed that using Personal Nostalgia compared to historical did actually result in less thought about the brand / message. This result shows that if marketers do still decide to use Personal Nostalgia at the expensive of the number of brand / message thoughts, then they need not be concerned about the level of Personal Nostalgia produced in relation to this particular thought.

Table 6-16: Brand / Message Related Thoughts

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	0.91	1.41	$L \rightarrow M H$	n.s.
Mid	0.75	1.12	$L  M \rightarrow H$	n.s.
High	0.73	1.08	$L \rightarrow \rightarrow \rightarrow H$	n.s.

#### 6.2.2.10 Ad-execution related thoughts

ANOVA shows that the level of Personal Nostalgia being elicited has a significant effect on the number of ad-execution related thoughts when comparison the Low level to Mid and High (Welch F(2, 273.55) = 5.95, p < .05). However, no significant increase was evident between the Mid to High groups, indicating that in this case no significant benefit is received by producing High levels of Personal Nostalgia compared to Mid (although it is not detrimental). Thus meeting Mid levels of intensity is all that is required for a significant effect in this response.

In this result, we see a significantly higher number of ad-execution related thoughts when the level of Personal Nostalgia is Low. This is likely to be due to the fact that as respondents begin to feel more Personal Nostalgia the salience of these thoughts begins to 'push out' the thoughts they would normally have about the execution of the advert. This distraction effect could be of benefit to marketers if, for

example, the quality of the advert is low, as respondent may not have as many thoughts about this issue should the level of Personal Nostalgia being felt be at least Mid level. This could also be detrimental however, as if costs of ad-execution were high (for example, special effects or expensive sets and spokespeople) then this money could be somewhat less effective as people feeling this level of Personal Nostalgia will not give these elements due attention.

**Table 6-17: Ad-execution Related Thoughts** 

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	2.17	2.18	$L \rightarrow M H$	sig.
Mid	1.53	1.94	$L \qquad M \rightarrow H$	n.s.
High	1.36	1.64	$L \rightarrow \rightarrow \rightarrow H$	sig.

#### 6.2.3 Conclusion of RQ1(a):

This research question explored the changes in cognition under three levels of Personal Nostalgia response to nostalgic advertisements. A summary of the findings is presented at Table 6-18.

When the thoughts being tested were related specifically to Historical Nostalgia (e.g. the amount, valence etc.) no significant change was found as a result of the level of Personal Nostalgia being experienced. There was also no change in the amount of brand-message related thoughts between the levels. This is of importance as H<sub>1</sub>i found that Personal Nostalgia, as opposed to Historical, resulted in significantly less brand-message related thoughts. The result of this research question reveals that in addition to this, there is no affect of this thought dependent on the level of Personal Nostalgia. With this in mind, markets that do not wish to loose in the number of brand-message related thoughts cannot thus compensate for the loss by 'lowering the intensity' of Personal Nostalgic reactions to try to make up for this, as there is no significant different. Once Personal Nostalgia is felt, even at the low level, it can be expected that there will be a trade off on the number of brand-message related thoughts.

In terms of the thoughts related to Personal Nostalgia specifically, the number of total thoughts, and the valence of thoughts in general, it is revealed that after respondents felt at least a Mid level of Personal nostalgia there was no significant increase in moving them from Mid to High in relation to the thoughts. Therefore, in comparison to the Low level, moving to either the Mid or High levels of Personal Nostalgic intensity would have a significant affect. However, if Mid level is achieved, no significant benefit is gained from moving to the High level, although it does not seem detrimental to do so. This result is in respect to cognitive responses only at present.

Table 6-18: A Summary of Cognition Under Personal Nostalgia Intensity

Research Question 1 (a) As Personal Nostalgic response intensifies it is expected to result in:	Result
a change in the number of personal nostalgic thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in the number of historical nostalgic thoughts	No significance
a change in the proportion of personal nostalgic thoughts to total thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in the proportion of historical nostalgic thoughts to total thoughts	No significance
a change in positively valenced personal nostalgic thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in positively valenced historical nostalgic thoughts	No significance
a change in the number of total thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in positively valenced set of thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in brand / message-related thoughts	No significance
a change in ad-execution related thoughts	Increases, although only necessary to meet Mid level for significant affect

#### 6.2.4 RQ2(a) – Effects on Emotions in Personal Nostalgia

The two specific types of nostalgia have been shown to be distinctly different from each other in Phase Two: Study One. As such, it is worthwhile to explore the emotions experienced in the Personal Nostalgia reaction group independently of the Historical Nostalgia group. An exploratory factor analysis (EFA) reveal six components, with similarities to the components revealed as common to both nostalgic groups in Phase Two: Study One. The emotions of Negative / Irritation, Upbeat / Elation, Serenity / Calm, and Warm / Tender all appear in the common set of nostalgic emotions, although the Negative / Irritation had some differences in the items that make up the component and the Serenity / Calm component had an additional one item included. The fifth emotion of 'uninvolved' did not appear in the test on common emotions, suggesting it is an emotional response related to Personal Nostalgia specifically, and the powerless / regret emotion seems to be similar to the loss / regret emotion, however due to the variation in items that the component is made up of this cannot be confirmed with the current data. The EFA results can be seen at Table 6-19. Full SPSS output of the ANOVA tests can be viewed at Appendix S.

Table 6-19: Emotions in Personal Nostalgia

#### Rotated Component Matrix(a)

			Comp	onent		
	1	2	3	4	5	6
Angry	.818					
Annoyed	.812					
Disgusted	.755					
Mad	.738					
Excited		.816				
Active		.800				
Playful		.756				
Entertained		.721				
Peaceful			.753			
Restful			.715			
Calm			.692			
Serene			.649			
Sentimental				.797		
Reflective				.692		
Innocent				.657		
Uninformed					.764	
Uninvolved					.713	
Powerless						.825
Helpless						.787
Cronbach's α	.83	.80	.70	.63	.58	.62
Eigenvalues (% of Variance)	21.47	18.04	8.58	6.40	5.51	5.41
KMO				25		
Bartlett		Арр	rox. Chi-squ Df.= 171,	ared = 2988 Sig.= .000	.646	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

 $<sup>^{\</sup>star\star}\text{NOTE}$ : Suppressed absolute values < .30 for clarity. Complete FA with no suppression can be seen at Appendix T.

Component Number	Emotion
1	Negative / Irritation
2	Upbeat / Elation
3	Serenity / Calm
4	Warm / Tender
5	Uninvolved
6	Powerless / Regret

a Rotation converged in 6 iterations.

#### 6.2.4.1 Emotion (Personal): Negative / Irritation

ANOVA shows that the level of Personal Nostalgia being elicited has no significant effect on the negative / irritation emotion (F(2, 511) = 1.61, p > .05).

We can see that the emotion did decrease as the level of Personal Nostalgia increased, but this was not to a significant amount. It is noted that the level of this emotion could be considered low across all levels of Personal Nostalgia, and in comparison to a non-nostalgic advert it may be significantly lower, although this is unable to prove with the current information in this study. However, the purpose of this study in comparing the emotion between levels of Personal Nostalgia is achieved.

Table 6-20: Personal condition – Emotion: Negative / Irritation

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	1.60	0.83	$L \rightarrow M H$	n.s.
Mid	1.53	0.84	$L \qquad M \rightarrow H$	n.s.
High	1.42	0.86	$L \rightarrow \rightarrow \rightarrow H$	n.s.

#### 6.2.4.2 Emotion (Personal): Upbeat / Elation

ANOVA shows that the level of Personal Nostalgia being elicited has a significant effect on the upbeat / elation emotion at each level (Welch F(2, 255.52) = 35.40, p < .05).

This indicates that it is worthwhile to attempt to make respondents feel a High level of Personal Nostalgia as it will significantly increase this positive emotion. This positive response may be transferred onto other consumer responses as based on results of H<sub>5</sub> in Phase Two: Test One, it seems as if Personal Nostalgic reactions are peripheral rather than central processing based. Furthermore, the items in this emotion seem to be an indicator of general positive emotions rather than related to specifically nostalgia. An increase in such emotions is a worthwhile result as it may indicate a positive increase across all aspects of the viewing experience as a result of the increase in Personal Nostalgia.

Table 6-21: Personal condition – Emotion: Upbeat / Elation

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	3.24	1.21	$L \rightarrow M H$	sig.
Mid	4.14	1.10	$L \qquad M \rightarrow H$	sig.
High	4.47	1.32	$L \rightarrow \rightarrow H$	sig.

## 6.2.4.3 Emotion (Personal): Serenity / Calm

ANOVA shows that the level of Personal Nostalgia being elicited has a significant effect on the serenity / calm emotion at each level (F(2, 511) = 28.37, p < .05).

This indicates that it is worthwhile to attempt to make respondents feel a High level of Personal Nostalgia as it will significantly increase this positive emotion. The serenity / calm emotion is likely to be strongly connected with the respondent's increasingly autobiographical cognitive response as Personal Nostalgia rises. It is widely accepted that people often resort to nostalgia related response when feeling under threat as a coping mechanism (e.g. Sedikides, Wildschut and Baden 2004) as the past is perceived as 'safe' and less complicated. An increase in the serene or calm emotions would be likely to experience in this scenario, as is the shown in these results.

Table 6-22: Personal condition – Emotion: Serenity / Calm

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	4.44	1.10	$L \rightarrow M H$	sig.
Mid	4.88	0.87	$L \qquad M \rightarrow H$	sig.
High	5.33	0.93	$L \rightarrow \rightarrow \rightarrow H$	sig.

#### 6.2.4.4 Emotion (Personal): Warm / Tender

ANOVA shows the level of Personal Nostalgia being elicited has a significant effect on the warm / tender emotion at each level (F(2, 511) = 17.38, p < .05).

This indicates that it is worthwhile to attempt to make respondents feel a High level of Personal Nostalgia, as it will significantly increase this positive emotion. The warm / tender emotion is perhaps one of the most commonly explored emotions under the nostalgic context (e.g. Holak and Havlena 1998). Like the discussed serenity / calm emotion, feelings of warmth / tenderness are an unsurprising result of an increase in specifically Personal Nostalgia, but never the less, have been empirically unproven until now.

Table 6-23: Personal condition – Emotion: Warm / Tender

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	4.41	1.23	$L \rightarrow M H$	sig.
Mid	4.95	1.08	$L  M \rightarrow H$	sig.
High	5.25	1.24	$L \rightarrow \rightarrow H$	sig.

#### 6.2.4.5 Emotion (Personal): Uninvolved

ANOVA shows significant changes in the uninvolved emotion as the level of Personal Nostalgia increases from the Low to High groups, but no change in comparing Low to Mid or Mid to High (Welch F(2, 249.00) = 5.22, p < .05).

This indicates that it is necessary to cause the respondent to achieve at least the High level of Personal Nostalgia intensity should any significant affect on this emotion be desired. This result is supported by the literature that suggests that people feeling Personal Nostalgia (in this case, a High amount compared to the Low amount) will likely draw upon Autobiographical Memory to construct their responses. This emotion of 'uninvolved' shows the level of uninvolvement significantly decreasing as the level of Personal Nostalgia (hence more personal involvement) increases to the High level, as result perfectly in context to the underpinnings and findings so far of this research.

Table 6-24: Personal condition – Emotion: Uninvolved

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	2.91	1.43	L → M H	n.s.
Mid	2.65	1.13	$L \qquad M \rightarrow H$	n.s.
High	2.36	1.33	$L \rightarrow \rightarrow \rightarrow H$	sig.

#### 6.2.4.6 Emotion (Personal): Powerless / Regret

ANOVA shows that the level of Personal Nostalgia being elicited has no significant effect on the powerless / regret emotion (F(2, 511) = .38, p > .05).

This is a somewhat surprising result, as we would have expected the regret powerless / regret emotion to increase as the level of Personal Nostalgia increased. This result could be due to the nature of the advertisement used. In Section 2.2.5.4 the idea that by using nostalgia a negative emotional response might be created by an advertisement, but that if the advert in question provided a way to remedy the feeling (that is by soothing the sense of loss etc. via purchase or similar) certain behaviours could be encouraged. The Kodak advert may have offered this remedy as it was suggesting Kodak might help you to 'remember the past' and 'never forget'. As such, the powerless feeling may have been reduced to an insignificant amount as the respondents felt that they did actually have power in the use of taking pictures in solve the potential problem. Should an advert elicit Personal Nostalgia and not suggest a way to sooth this loss, then this emotion may be significantly effected. This would be worthwhile future research and is discussed in more detail in Chapter 7.

**Table 6-25: Personal condition – Emotion: Powerless / Regret** 

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	2.48	1.33	$L \rightarrow M H$	n.s.
Mid	2.56	1.32	$L \qquad M \rightarrow H$	n.s.
High	2.43	1.47	$L \rightarrow \rightarrow H$	n.s.

#### 6.2.5 Conclusion of RQ2(a):

The results of this research question indicate that the Upbeat / Elation, Serenity / Calm, and Warm / Tender emotions in the Personal Nostalgia response group significantly increased at each level of intensity examined in this study. These emotions are likely to be considered positive, indicating that it is worthwhile to increase Personal Nostalgia levels to the High level in order to reap the benefit of these emotional reactions. This is in contrast to RQ1(a) that found only reaching a Mid level of Personal Nostalgia was worthwhile in the affect on thoughts. This is discussed in more depth at the conclusion of this study (Section 6.2.8). No significant change was found in the Negative / Irritation, nor Powerless / Regret emotion as the level of Personal Nostalgia increased, although it was close to significance in the Powerless / Regret. Different circumstances, response groups, or nostalgic cue might have pushed this result 'over the line' so to speak so the possibility of this emotion being affected by the level of Personal Nostalgia intensity should not be entirely discounted. Finally, the 'Uninvolved' emotion which emerged as being existent under the Personal Nostalgia response group had a significantly lower mean score in the Low group as opposed to the High, but not the Mid. This is a good indication of the underpinning of the study being accurate, as an increase in Personal Nostalgia to a high level should be more autobiographical and thus an emotion such as 'uninvolved' would be expected to be significantly lower in the Low Personal Nostalgia group, as is the case in this research.

Table 6-26: A Summary of Emotions Under Personal Nostalgia Intensity

Emotions	Significance / Result
Negative / Irritation	No significant change
Upbeat / Elation	Significant increase at each level of Personal Nostalgia
Serenity / Calm	Significant increase at each level of Personal Nostalgia
Warm / Tender	Significant increase at each level of Personal Nostalgia
Uninvolved	Low group significantly lower than High
Powerless / Regret	No clear significant change

# 6.2.6 RQ3(a) & RQ4(a) – Effects on Attitudes & Intentions in Personal Nostalgia

Attitudes and intentions of respondents experiencing different intensities of Personal Nostalgia is clearly an important gap in the knowledge to fulfil. Previous studies (e.g. Muehling and Sprott 2004; Pascal, Sprott and Muehling 2002) that have explored unified nostalgia would suggest that these reactions would become increasingly positive as the level of nostalgia increases. This reaction is expected to also occur at each explored range under the Personal Nostalgia reaction group also. Full SPSS output can be seen at Appendix U.

# 6.2.6.1 Attitude towards the advert

The ANOVA shows that as the amount of Personal Nostalgia increases at each level there is a significant positive increase in attitude towards the advert (Welch F(2, 253.06) = 30.23, p < .05).

This results shows that it is worthwhile for marketers to try to increase Personal Nostalgia to a High intensity level as it significantly positively effects attitude towards the advert. This is a significant result as Aad is expected to have transfer affects on other reactions such as attitude toward the brand and intention to purchase the brand (e.g. Brown and Stayman 1992; MacKenzie, Lutz and Belch 1986).

Table 6-27: Aad – Personal Nostalgic Reaction

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	6.38	1.59	$L \rightarrow M H$	sig.
Mid	7.31	1.23	$L  M \rightarrow H$	sig.
High	7.80	1.33	$L \rightarrow \rightarrow \rightarrow H$	sig.

#### 6.2.6.2 Attitude towards the brand

The ANOVA shows that as the amount of Personal Nostalgia increases at each level there is significant positive increase in attitude towards the brand (F(2, 511) = 26.54, p < .05).

This result shows that it is worthwhile for marketers to try to increase Personal Nostalgia to a High intensity level, even from the Mid level, as it will significantly positively affect attitude towards the brand. Like attitude towards the advert, attitude towards the brand is expected to directly influence intention to purchase the brand (e.g. MacKenzie, Lutz and Belch 1986). The ability to influence respondents to have an increasingly positive attitude toward a specific brand is of clear benefit to marketers / brand managers.

Table 6-28: Ab – Personal Nostalgic Reaction

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	6.29	1.26	$L \rightarrow M H$	sig.
Mid	6.82	1.21	$L \qquad M \rightarrow H$	sig.
High	7.42	1.30	$L \rightarrow \rightarrow H$	sig.

#### 6.2.6.3 Intention to purchase brand

The ANOVA shows that as the amount of Personal Nostalgia increases at each level there is significant positive increase in intention to purchase the brand (F(2, 511) = 24.91, p < .05).

This results shows that it is worthwhile for marketers to try to increase Personal Nostalgia to a High intensity level as it significantly positively effects intention to purchase the brand. As discussed previously, while intention may not always equal behaviour, this result is a useful indicator for expected reactions.

Table 6-29: Ib – Personal Nostalgic Reaction

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	5.68	1.86	$L \rightarrow M H$	sig.
Mid	6.49	1.65	$L \qquad M \rightarrow H$	sig.
High	7.21	1.77	$L \rightarrow \rightarrow \rightarrow H$	sig.

#### 6.2.7 Conclusion of RQ3(a) and RQ4(a):

In respect to the comparative attitude and intention reactions experienced by respondents experiencing the three levels of Personal Nostalgia, it is clear that achieving a High level of Personal Nostalgia is a worthwhile result as all measures significantly positively improved as Personal Nostalgia rose. There is clear managerial implication for these results, as attitude and intentions are commonly used in market research as an indication of expected behaviour and as a test of effectiveness of various advertising appeals.

#### 6.2.8 Conclusion of Study Two: Personal Nostalgia Intensity

Throughout this study it has been revealed that there are some mixed expectations in what to anticipate when reaching different levels of Personal Nostalgia.

Cognitive reactions, such as the valence, proportions, and number of thoughts between groups, do not seem to benefit from reaching a High as opposed to Mid level of reaction. In regards to these reactions, if the Mid level is reached then we see a significant change from the Low level; but should it be difficult or costly to reach a High level rather than Mid, in regards to this aspect, there is no benefit in doing so, so the worth of achieving this is questionable.

The emotions in the personal group were very similar to those revealed as being common to both types of nostalgic response. However, some changes were evident such as the existence of the 'uninvolved' emotion. The affect that the level of Personal Nostalgia intensity had on emotions was distinctly different from the cognition case. While cognitive changes appear to cease in significance once the Mid level of Personal Nostalgia was reached, three of the emotions that would be considered a positive response benefited from moving from the Low, to Mid, to High level with significant changes at every increase. As such, this result indicates that although there seems to be no benefit in moving respondents from the Mid to High level in terms of affecting their cognitive responses, there is a significant effect on their emotions. This may indicate Personal Nostalgia's existence as an appeal connected more to emotions, rather than cognitive reactions. This supports the discussion of H<sub>5</sub> (Phase Two: Test One) in which cognitive responses seem to not

explain / predict attitudes very well and the mode of processing seems to be peripheral rather than central. As such, inclusion of emotions (as discussed) as an improvement for the model seems a likely benefit as a result of the outcomes in this research question.

When examining attitudes and intentions there was a significant change at each level of Personal Nostalgia explored. This suggests that it is worthwhile to attempt to cause respondents to experience the high level of Personal Nostalgia. This is in contrast to the cognitive test that shows after meeting the Mid level no additional significance is achieved. The difference in this result from the cognitive response result is of no concern however, as it could indicate that as respondents move from the Mid to High level of Personal Nostalgia there does not seem to be a cognitive change, but there is an emotional one, and as such, the change in attitudes and intentions at the high level of Personal Nostalgia could be due to the emotional (or, as discussed, peripheral) process occurring.

In summary, the results of this research question greatly assist the knowledge in understanding Personal Nostalgic responses independently of Historical Nostalgia.

# 6.3 Phase Two: Study Three – Historical Nostalgia Intensity

This study explores various consumer behaviour reactions as a result of the level of Historical Nostalgia experienced in those exposed to adverts containing nostalgic cues. Groups indicated as experiencing either a Low, Mid, or High level of Historical Nostalgia, as judged by the Historical Nostalgia Scale developed in Phase One, were generated. Comparison on cognitive reactions, emotions, attitudes, and intentions are undertaken using ANOVA. Study Three follows the same process and procedures undertaken in Phase Two: Study Two. For discussion of suitability of analysis techniques please see Section 6.2.

# **6.3.1 Profile of respondents**

The respondents used are those 292 respondents from the main study data set that were shown to experience Historical Nostalgia reactions as a result of the advertising cues. The number of respondents for each group is as follows; Low group (n = 73), Mid group (n = 146), High group (n = 73). ANOVA showed each group's mean score of the Historical Nostalgia Scale is significantly greater than the lower groups (Table 6-30) (Welch F(2, 141.52) = 450.63, p < .05). The Cronbach's Alpha for the scale was also acceptable ( $\alpha = 0.72$ ). No significant difference in age was found between the three groups (Table 6-31) (Welch F(2, 150.36) = 2.83, p > .05).

Table 6-30: Mean of Historical Nostalgia Scale

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	4.35	0.78	$L \rightarrow M H$	sig.
Mid	5.66	0.33	$L \qquad M \rightarrow H$	sig.
High	6.59	0.28	$L \rightarrow \rightarrow H$	sig.

Table 6-31: Mean of Age in Historical Intensity Groups

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	20.94	2.34	$L \rightarrow M H$	n.s.
Mid	20.27	1.82	$L \qquad M \rightarrow H$	n.s.
High	20.19	1.59	$L \rightarrow \rightarrow H$	n.s.

# 6.3.2 RQ1(b) - Effects on Cognition in Historical Nostalgia

The examination of cognition under the three levels of consumers experiencing Historical Nostalgia follows the method and structure of Phase Two: Study Two. What we would expect to see in this case is a decrease in the amount of significant changes as respondents would not be experiencing autobiographical responses as per the personal nostalgic group. However, the previous work has shown some tendency for those experiencing Historical Nostalgia to still have some person / autobiographical responses due to people tendencies to want to self-relate to the feelings they are experiencing, which may still result in significant changes. Furthermore, Historical Nostalgia, while not self-referencing, is still considered a positively valenced response and as such, different levels of intensity may still have significant effects on cognition. Full SPSS output in at Appendix V.

#### 6.3.2.1 Number of personal nostalgic thoughts

ANOVA shows that the level of Historical Nostalgia being elicited has a no significant effect on the number of personal nostalgic thoughts (F(2, 289) = 0.85, p > .05).

This result is of significance as it can there is a tendency for those respondents indicated as experiencing Historical Nostalgia to still feel elements of Personal Nostalgia (more so than those feeling Personal begin to feel Historical). This can be seen in the graphical representation of order and types of thoughts previously shown (Figure 6-1 and Figure 6-2). This result is worthwhile to know as should the marketer decide to attempt to increase respondent's Historical Nostalgia to a Mid or High level, they need not worry about any increase in Personal Nostalgia thoughts that may occur as a result of this increase.

Table 6-32: Number of Personal Thoughts

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	0.78	1.73	$L \rightarrow M H$	n.s.
Mid	0.52	1.33	$L \qquad M \rightarrow H$	n.s.
High	0.57	1.15	$L \rightarrow \rightarrow H$	n.s.

## 6.3.2.2 Number of historical nostalgic thoughts

ANOVA shows that the level of Historical Nostalgia being elicited has a significant effect on the number of historical nostalgic thoughts when comparing the Low group to any other group, but no significant change from the Mid to High group (Welch F(2, 160.16) = 14.46, p < .05).

This indicates that in this case no significant benefit is received by producing High levels of Historical Nostalgia compared to Mid (although it is not detrimental). Thus meeting Mid levels of intensity is all that is required for a significant effect in this response.

Table 6-33: Number of Historical Thoughts

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	1.23	1.54	$L \rightarrow M H$	sig.
Mid	2.33	2.18	$L \qquad M \rightarrow H$	n.s.
High	2.78	2.39	$L \rightarrow \rightarrow \rightarrow H$	sig.

### 6.3.2.3 Proportion of personal nostalgic thoughts to total thoughts

ANOVA shows that the level of Historical Nostalgia being elicited has a no significant effect on the proportion of personal nostalgic thoughts to total thoughts (F(2, 289) = 0.60, p > .05).

Like the result of the number of personal nostalgic thoughts, this shows no tendency for respondents to begin to have an increase in the proportion of personal nostalgic thoughts to total thoughts regardless of their level of Historical Nostalgia.

Table 6-34: Proportion of Personal Nostalgia Thoughts to Total

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	0.10	0.22	L → M H	n.s.
Mid	0.07	0.17	$L  M \rightarrow H$	n.s.
High	0.10	0.19	$L \rightarrow \rightarrow \rightarrow H$	n.s.

## 6.3.2.4 Proportion of historical nostalgic thoughts to total thoughts

ANOVA shows that the level of Historical Nostalgia being elicited has a significant effect on the proportion of historical nostalgic thoughts to total thoughts when comparing Low to Mid and High levels, but no significant different between the Mid and High level (F(2, 289) = 12.02, p < .05).

This indicates that in this case no significant benefit is received by producing High levels of Historical Nostalgia compared to Mid (although it is not detrimental). Thus meeting Mid levels of intensity is all that is required for a significant effect in this response. This result is as per the number of historical nostalgic thoughts outcome.

Table 6-35: Proportion of Historical Nostalgic Thoughts to Total Thoughts

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	0.20	0.24	$L \rightarrow M H$	sig.
Mid	0.36	0.29	$L \qquad M \rightarrow H$	n.s.
High	0.41	0.26	$L \rightarrow \rightarrow \rightarrow H$	sig.

### 6.3.2.5 Positively valenced personal nostalgic thoughts

ANOVA shows that the level of Historical Nostalgia being elicited has a no significant effect on the valence of personal nostalgic thoughts (F(2, 289) = 0.09, p > .05).

This shows no tendency for respondents to begin change in the valence of their personal nostalgic thoughts regardless of their level of Historical Nostalgia. As such, there is no apparent benefit or danger in regards to this specific thought changing as the level of historical nostalgic experienced by respondents is altered. Again, this follows the previous trend of Personal Nostalgia related cognition being unaffected as the intensity of Historical Nostalgic response rises.

**Table 6-36: Positively Valenced Personal Nostalgic Thoughts** 

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	+0.47	1.16	L → M H	n.s.
Mid	+0.41	1.13	$L \qquad M \rightarrow H$	n.s.
High	+0.47	1.01	$L \rightarrow \rightarrow \rightarrow H$	n.s.

## 6.3.2.6 Positively valenced historical nostalgic thoughts

ANOVA shows that the level of Historical Nostalgia being elicited has a significant affect on the valence of historical nostalgic thoughts when comparing Low to the Mid and High levels, but no significant different between the Mid and High level (F(2, 289) = 6.73, p < .05).

This indicates that in this case no significant benefit is received by producing High levels of Historical Nostalgia compared to Mid (although it is not detrimental). Thus meeting Mid levels of intensity is all that is required for a significant effect in this response. Again, this is indicative of the previous Historical Nostalgia related thoughts reaction to changes in the level of Historical Nostalgia intensity.

**Table 6-37: Positively Valenced Historical Nostalgic Thoughts** 

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	+0.18	0.52	$L \rightarrow M H$	sig.
Mid	+0.20	0.68	$L \qquad M \rightarrow H$	n.s.
High	+0.27	0.82	$L \rightarrow \rightarrow H$	sig.

### 6.3.2.7 Number of total thoughts

ANOVA shows that the level of Historical Nostalgia being elicited has a significant effect on the number of total thoughts when comparison the Low level to Mid and High (F(2, 289) = 6.19, p < .05). However, no significant increase was evident between the Mid to High groups, indicating that in this case no significant benefit is received by producing High levels of Historical Nostalgia compared to Mid

(although it is not detrimental). Thus meeting Mid levels of intensity is all that is required for a significant effect in this response.

This increase is likely to be as a result of the increased salience of thoughts and respondents desire to continue to reflect once feeling Historical Nostalgia. The lack of change between the Mid and High groups could signify a 'saturation' where after Mid level of reaction is achieved, no increase in the number of thought is stimulated (although this is just the number, not the nature of the thoughts at these levels). Again, a clear pattern of Historical Nostalgia intensity's affect on cognitive response seems evident.

Table 6-38: Number of Total Thoughts

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	2.01	2.08	$L \rightarrow M H$	sig.
Mid	2.85	2.37	$L \qquad M \rightarrow H$	n.s.
High	3.36	2.51	$L \rightarrow \rightarrow \rightarrow H$	sig.

### 6.3.2.8 Positively valenced set of thoughts

ANOVA shows that the level of Historical Nostalgia being elicited has a significant effect on the valence of total thoughts when comparison the Low level to Mid and High (F(2, 289) = 7.73, p < .05). However, no significant increase was evident between the Mid to High groups, indicating that in this case no significant benefit is received by producing High levels of Historical Nostalgia compared to Mid (although it is not detrimental). Thus meeting Mid levels of intensity is all that is required for a significant effect in this response.

This increase indicates that the valence of thoughts overall (of either nostalgic type, ad-execution, brand / message, and miscellaneous in nature) is affected by the level of Historical Nostalgia experienced, but that there is no change in those experiencing a High compared to Mid level. Once again, this result seems to be following a trend in the exploration of thoughts under the three group conditions, signifying an argument for reaching at least a Mid level of Historical Nostalgia to be

strong, but with little support for attempting to ensure respondent meet a High level of intensity (although there is no detriment). This is also as per the results under Phase Two: Study Two where the Personal Nostalgia intensities were examined.

Table 6-39: Valence of Thoughts

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	+2.18	3.34	$L \rightarrow M H$	sig.
Mid	+3.34	2.87	$L \qquad M \rightarrow H$	n.s.
High	+4.11	2.90	$L \rightarrow \rightarrow H$	sig.

### 6.3.2.9 Brand / message-related thoughts

ANOVA shows that the level of Historical Nostalgia being elicited has a no significant effect on the number of brand / message related thoughts when comparing any group (F(2, 289) = 0.95, p > .05).

This result indicates no danger of distraction away from brand / message related thoughts when employing Historical Nostalgia. This result is as expected if based on the Phase Two: Study Two examination of Personal Nostalgia intensity against brand / message related thoughts, as it also showed no distraction effect, which was more likely to occur than it would under the Historical Nostalgia condition due to the autobiographical nature of the responses.

**Table 6-40: Brand / Message Related Thoughts** 

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	0.82	1.07	$L \rightarrow M H$	n.s.
Mid	1.12	1.33	$L \qquad M \rightarrow H$	n.s.
High	1.00	1.25	$L \rightarrow \rightarrow \rightarrow H$	n.s.

### 6.3.2.10 Ad-execution related thoughts

This result proves somewhat inconclusive as the F statistic in the ANOVA shows a change in the level of Historical Nostalgia being elicited as having a significant effect on the number of ad-execution related thoughts between the groups (F(2, 289) = 3.18, p < .05). However, the p value of .043 is close to the .05 cut off, but is nevertheless significant. In examining the post-hoc tests to see where the significant difference between groups lies, however, no significant difference is found unless the LSD post hoc method is used, in which case the Low group is seen to have significantly a higher number of ad-execution related thoughts than the Mid and High level. In spite of this result, the LSD post hoc is often considered to be too liberal in its findings (Morgan et al. 2001) and as such the result is judged as to be not significant in this research. This is in contrast to the Persona Nostalgia intensity test in Phase Two: Study Two, where the number of ad-execution related thoughts under the Low group was found to be significantly lower than the Mid and High groups.

**Table 6-41: Ad-execution Related Thoughts** 

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	2.86	2.12	$L \rightarrow M H$	n.s.
Mid	2.20	2.15	$L \qquad M \rightarrow H$	n.s.
High	2.04	2.16	$L \rightarrow \rightarrow \rightarrow H$	n.s.

## 6.3.3 Conclusion of RQ1(b):

The results of this research questions are evocative of the Personal Nostalgia intensity test in RQ1(a), in that when cognition is significantly affected, it is only in comparison to the Low to Mid and High levels, but not between Mid and High. This indicates that after a Mid level of Historical Nostalgia intensity is achieved no significant benefit in terms of the cognitive responses examined is received by moving respondents to the High level (although it does not seem detrimental to do so). Although, in regards to the thoughts related to the type of nostalgia being experienced the results are 'vice-versa' (i.e. number of personal nostalgic thoughts

are significantly changed under the personal condition, while number of historical nostalgic thoughts are significantly changed under the historical condition, and so on). Again however, these results are of course limited to the current conditions, although they do prove to be consistent in this scenario. The only change evident is in the number of ad-execution related thoughts. In the Personal Nostalgia intensity test, a significantly lower number of ad-execution thoughts were found in the Low compared to Mid and High groups. The significance of this result was a borderline under the Historical Nostalgia intensity study, but due to the close nature it is possible that this result could be altered under varying conditions. A summary of the changes (if any) in cognition between the Historical Nostalgia intensity groups can be seen below at Table 6-42.

Table 6-42: A Summary of Cognition Under Historical Nostalgia Intensity

Research Question 1 (b) As Historical Nostalgic response intensifies it is expected to result in:	Result
a change in the number of personal nostalgic thoughts	No significance
a change in the number of historical nostalgic thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in the proportion of personal nostalgic thoughts to total thoughts	No significance
a change in the proportion of historical nostalgic thoughts to total thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in positively valenced personal nostalgic thoughts	No significance
a change in positively valenced historical nostalgic thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in the number of total thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in positively valenced set of thoughts	Increases, although only necessary to meet Mid level for significant affect
a change in brand / message-related thoughts	No significance
a change in ad-execution related thoughts	No clear significance

### 6.3.4 RQ2(b) – Effects on Emotions in Historical Nostalgia

Research Question 2(b) looks to explore the emotions experienced by respondents in the 'Historical Nostalgia' experience group. As in RQ2(a), we begin with an exploratory factor analysis to identify the emotional components experienced under this response group. The results show five emotion components, four of which appeared in the initial EFA in Phase Two: Study One that explored the common emotional components of Personal and Historical Nostalgia combined. The EFA is shown at Table 6-43.

The first emotion component of 'Negative / Irritation' does consist of some different items to compose the measure, although the similarities suggest the same component being measured overall. The Upbeat / Elation emotion is identical. The Warm / Tender and Serenity / Calm emotions are similar with only one item different in each component. The third component is new to the study with the items 'grateful' and 'thankful' loading together to create the 'gratitude' emotion. Holbrook and Batra (1987) have used these two items (along with a third item not included in this study) previously as an emotion labeled 'gratitude'. In keeping with the literature we accept their title. They have, however, been used amongst other items and termed as 'tenderness' in past studies (e.g. Holak and Havlena 1998). The Gratitude emotion is an interesting development as discussed when looking at the results of analysis in Section 6.3.4.3. The 'Powerless / Regret' and 'Uninvolved' emotions revealed in the Personal Nostalgia research question did not emerge. This is understandable as it is possible that those respondents experiencing Historical Nostalgia based responses did not have varying feelings of involvement (they were perhaps equally uninvolved regardless of their level of Historical Nostalgia due to the lack of personally related cognitive responses). In terms of the Powerless / Regret emotion not appearing, this may be a similar case where these items simply were not relevant to Historical Nostalgia reacting respondents.

However, it should be re-emphasised that the purpose of this research question is not to compare Personal to Historical Nostalgia, but rather to understand the intensity affects of the two types of nostalgia independently of each other. Full output of the ANOVA analysis undertaken with SPSS can be seen at Appendix W.

Table 6-43: Emotions in Historical Nostalgia

## Rotated Component Matrix(a)

			Component		
	1	2	3	4	5
Mad	.781				
Angry	.778				
Irritated	.755				
Annoyed	.751				
Fearful	.747				
Afraid	.744				
Excited		.838			
Active		.836			
Playful		.687			
Entertained		.664			
Grateful			.893		
Thankful			.879		
Sentimental				.818	
Reflective				.811	
Calm					.838
Peaceful					.787
Cronbach's α	.87	.79	.87	.66	.63
Eigenvalues (% of Variance)	27.49	21.58	7.65	7.18	6.37
KMO	.824				
Bartlett	Approx. Chi-squared = 1941.171 Df.= 120, Sig.= .000				

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.

\*\*NOTE: Suppressed absolute values < .30 for clarity. Complete FA with no suppression can be seen at Appendix X.

Component Number	Emotion
1	Negative / Irritation
2	Upbeat / Elation
3	Gratitude
4	Warm / Tender
5	Serenity / Calm

### 6.3.4.1 Emotion (Historical): Negative / Irritation

ANOVA shows that the level of Historical Nostalgia being elicited has a significant effect on the negative / irritation emotion when the High level is reached (Welch F(2, 160.64) = 5.96, p < .05).

This result shows no significant decrease in the emotion unless the High level of Historical Nostalgia is achieved. As such, we see a benefit in reaching High Historical Nostalgia in its ability to result in less negative / irritation emotions in consumers. As can be seen, meeting just a Mid level is of no significant benefit. This is in contrast to the Personal Nostalgia intensity study that found no significant change regardless of the level of Personal Nostalgia experienced. Historical Nostalgia's ability to lower what seems to be a general negative emotional response is an indication of its benefit over Personal Nostalgia in this particular case. However, it should be noted that the items that make up this component do differ and any comparison should be taken with care. As discussed, the purpose of this research question is not to compare Personal to Historical Nostalgia, but rather to understand the two types of nostalgia independently of each other.

Table 6-44: Historical condition – Emotion: Negative / Irritation

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	1.73	0.99	$L \rightarrow M H$	n.s.
Mid	1.62	0.88	$L \qquad M \rightarrow H$	sig.
High	1.35	0.57	$L \rightarrow \rightarrow \rightarrow H$	sig.

### 6.3.4.2 Emotion (Historical): Upbeat / Elation

ANOVA shows that the level of Historical Nostalgia being elicited has a significant effect on the upbeat / elation emotion at the Mid and High level when compared to Low, but is not significant from the Mid to High (F(2, 289) = 15.13, p < .05).

This indicates that in order to achieve a significant increase in this emotion reaching the Mid level is all that is necessary, as no significant benefit is achieved in

moving from Mid to High (although it is not detrimental to do so). This is in contrast to the Personal Nostalgia intensity study where the level of this emotion (or at least its relative response) was increase at each level. This comparison is undertaken as the items in both nostalgic type intensity groups are identical showing this emotion's consistency across both groups.

Table 6-45: Historical condition – Emotion: Upbeat / Elation

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	3.00	1.09	$L \rightarrow M H$	sig.
Mid	3.67	1.05	$L \qquad M \rightarrow H$	n.s.
High	3.97	1.21	$L \rightarrow \rightarrow \rightarrow H$	sig.

### 6.3.4.3 Emotion (Historical): Gratitude

ANOVA shows that the level of Historical Nostalgia being elicited has a significant effect on the gratitude emotion if the respondent reaches the High level of Historical Nostalgia compared to Low (F(2, 289) = 7.88, p < .05). However, if a Mid level is already being experience, no benefit in reaching the High level is received.

To significantly effect this emotion, the High level must be reached for any significant effect to take place. Furthermore, the effect is only significant if the respondent would otherwise feel a Low level of Historical Nostalgia, as there is no significant benefit in moving them from the Mid to High level. This is an interesting emotion to explore, as the items of 'thankful' and 'grateful' that make up this factor could possible relate to either positive or negative reactions. The question could be that does this emotion increase as Historical Nostalgia reaches the High level because the respondents are 'grateful' that they did not experience the era they are associating the advert with (e.g. "I'm glad I didn't live in the past"), or is this a positive reaction of gratitude associated with the positive feelings respondents often get when think about the past for enjoyment (e.g. "thankful that I was able to reminisce"). A positive correlation of the gratitude emotion with a positive emotion (such as the 'positive / elation' emotion) or a negative correlation with the 'negative /

irritation' emotion can indicate this direction. Bivariate correlation (Person, Two-tailed) shows a significant (p < .05) positive correlation with the grateful emotion and all other emotions (Person Correlations of .48, .25, and .16) with the exception of 'negative / irritation' (-.06). This emotion did negatively correlate, although not to a significant amount. Based on this, we determine that the grateful emotion is a positive reaction and as such achieving a High level of Historical Nostalgia is again beneficial in regards to the effect on this emotion.

Table 6-46: Historical condition – Emotion: Gratitude

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	3.87	1.49	L → M H	n.s.
Mid	4.35	1.38	$L  M \rightarrow H$	n.s.
High	4.80	1.40	$L \rightarrow \rightarrow \rightarrow H$	sig.

### 6.3.4.4 Emotion (Historical): Warm / Tender

ANOVA shows that the level of Historical Nostalgia being elicited has a significant effect on the warm / tender emotion at each increase of the Historical Nostalgia intensity reaction (F(2, 289) = 9.95, p < .05).

This result indicates a benefit in endeavouring to cause respondents to feel as high a Historical Nostalgia related response as possible in regards to significantly affecting an increase of this emotion. This is expected to be of benefit to marketers as increases in warm / tender emotions could result in positive reactions transferred to attitudes and intentions (e.g. Burke and Edell 1989; MacKenzie, Lutz and Belch 1986). Due to the difference in items that comprise this component, comparison to the 'warm / tender' emotions in the Personal Nostalgia intensity group should be cautioned, although it is noted that the items are identical with the exception of an additional item in the Personal Nostalgia group. However, as an indication of the differences, the Personal group experienced a significant increase of this emotion at each level also.

Table 6-47: Historical condition – Emotion: Warm / Tender

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	4.81	1.13	$L \rightarrow M H$	sig.
Mid	5.25	1.31	$L \qquad M \rightarrow H$	sig.
High	5.71	1.14	$L \rightarrow \rightarrow \rightarrow H$	sig.

# 6.3.4.5 Emotion (Historical): Serenity / Calm

ANOVA shows that the level of Historical Nostalgia being elicited has no significant effect on the serenity / calm emotion (F(2, 289) = 2.35, p > .05).

However, it should be noted that the actual p value = .06, only just outside the range of significance. Boferroni's post-hoc test also shows a sig. value of .06 between on comparing the Low to High levels, falling just outside of the accepted level of significance. We can see that the mean score of this emotion component steadily increases as Historical Nostalgia rises in each intensity group. As such, while there is no significance in comparing the three historical nostalgic groups in this study, the possibility of the serenity / calm emotion being significantly effected by the level of Historical Nostalgia experienced should not be entirely discounted under different circumstances or under more severe comparisons of historical nostalgic levels.

Table 6-48: Historical condition – Emotion: Serenity / Calm

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	5.21	1.09	$L \rightarrow M H$	n.s.
Mid	5.36	1.14	$L \qquad M \rightarrow H$	n.s.
High	5.62	0.87	$L \rightarrow \rightarrow \rightarrow H$	n.s.

### 6.3.5 Conclusion of RQ2(b):

A summary of the emotions and their response under each level of Historical Nostalgia can be seen at Table 6-49. Under the three Historical Nostalgia intensity groups, it can be seen that the Negative / Irritation emotion is lower in the High

group as opposed to the Mid and Low. However, as there is no significant difference in the Mid to Low group, at least a High level is needed to take advantage of this change in emotions. Upbeat / Elation emotions are only significantly affected when comparing the High or Mid group to the Low. However, if a Mid level is reached, there is no benefit in reaching the High level from this point, and as such only a Mid level is needed for this emotion. In a similar case, the gratitude emotion is significantly greater in the High level compared to Low, but the High level must be reached to achieve any significant change. If the respondent is feeling Mid level however, no benefit is achieved in encouraging them to move to the High level. The Warm / Tender emotion can be seen to increase significantly at each level, indicating that this particular emotion may be affected with more ease than the other emotions explored that need a High level before significant effects occur. Finally, the Serenity / Calm emotion showed no significant change between intensity levels, although the High compared to Low group was very close, and as such, affecting this emotion as a result of the level of Historical Nostalgia may not want to be entirely discounted in every scenario.

These results have provided an understanding of the changes in emotions as a result of the level of Historical Nostalgia experienced by respondents, independently of Personal Nostalgia. Further research as to emotions under this specific type of nostalgia would be of benefit, including different contexts and adverts, varying involvement, product types, and respondents, and emotion's place in an overall model of Historical Nostalgia's affect on consumer behaviour.

Table 6-49: A Summary of Emotions Under Historical Nostalgia Intensity

Emotions	Significance / Result	
Negative / Irritation	High group significantly lower than Mid and Low	
Upbeat / Elation	High and Mid group significantly higher than Low	
Gratitude	High group significantly higher than Low	
Warm / Tender	Significant increase at each level	
Serenity / Calm	No confirmed significant change	

# 6.3.6 RQ3(b) & RQ4(b) – Effects on Attitudes & Intentions in Historical Nostalgia

This research question tests the level of respondent's attitudes and intentions under the three levels of Historical Nostalgia, as completed as per the Personal Nostalgia intensity test in Phase Two: Study Two. Appendix Y shows full SPSS output.

#### 6.3.6.1 Attitude towards the advert

The ANOVA shows that as the amount of Historical Nostalgia increases at each level there was a significant increase in Aad (Welch F(2, 146.97) = 12.25, p < .05).

This results shows that it is worthwhile for marketers to try to increase Historical Nostalgia to as high an intensity level as possible, as it significantly positively affects attitude towards the advert. This is of significance to marketers as Aad is expected to affect other responses such as attitude towards the brand and intention to purchase the brand (e.g. MacKenzie, Lutz and Belch 1986).

Table 6-50: Aad – Historical Nostalgic Reaction

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	6.22	1.67	$L \rightarrow M H$	sig.
Mid	6.81	1.36	$L \qquad M \rightarrow H$	sig.
High	7.46	1.38	$L \rightarrow \rightarrow \rightarrow H$	sig.

### 6.3.6.2 Attitude towards the brand

The ANOVA shows that as the amount of Historical Nostalgia increases at each level there is a significant increase in positive Ab (F(2, 289) = 4.90, p < .05) when comparing Low to High levels of reaction, but no significant difference in Low to Mid or Mid to High.

This result means that in order to receive any significant benefit in terms of positive attitude towards the brand, it is necessary for marketers increase Historical Nostalgia to a high intensity level. This is in contrast of the result under the Personal

Nostalgia intensity test where each increase of Personal Nostalgia saw a significant increase in Ab. This is also in contrast to the test on attitude towards the advert performed in this study. However, this supports the previously discussed literature that suggests Historical Nostalgia is a less powerful approach due to the possible collective nature (e.g. Halbwachs 1950, 1992) compared to the autobiographical nature (e.g. Brewer 1986; Neisser 1988; Rubin 1986; Tulving 1972, 1984) of Personal Nostalgia in significantly affecting consumer response.

Table 6-51: Ab – Historical Nostalgic Reaction

Group	Mean	S.D.	<b>Groups Compared</b>	Sig. (p<.05)
Low	6.23	1.37	$L \rightarrow M H$	n.s.
Mid	6.63	1.27	$L \qquad M \rightarrow H$	n.s.
High	6.94	1.54	$L \rightarrow \rightarrow H$	sig.

### 6.3.6.3 Intention to purchase brand

The ANOVA shows that as the amount of Historical Nostalgia increases at each level there is a significant increase in positive Ib (F(2, 289) = 13.19, p < .05).

This results shows that it is worthwhile for marketers to try to increase Historical Nostalgia to a high intensity level as it significantly positively effects intention to purchase the brand. This result is somewhat surprising as the previous tests of Ab suggested that there was a need for historical reactions to reach a high level before effect took place. The result concerning Ib however is more in sync with the Aad result. This could suggest that Ab plays less a role in determining Ib under the Historical Nostalgia intensity conditions.

Table 6-52: Ib – Historical Nostalgic Reaction

Group	Mean	S.D.	Groups Compared	Sig. (p<.05)
Low	5.68	1.86	$L \rightarrow M H$	sig.
Mid	6.49	1.65	$L \qquad M \rightarrow H$	sig.
High	7.21	1.77	$L \rightarrow \rightarrow H$	sig.

### 6.3.7 Conclusion of RQ3(b) and RQ4(b):

The examination of attitudes and intention provided some interesting results in comparison under the three historical nostalgic levels. While Aad and Ib both were significantly increased as the level of Historical Nostalgia increase, Ab was unaffected unless a High (in comparison to Low) level was achieved. This could indicate a stronger connection between Aad, Ab, and Ib under a high level of Historical Nostalgia, while a weaker relationship occurs in Mid and Low Historical Nostalgia response conditions. This could be due to respondents in the Mid level response group feeling a level of Historical Nostalgia capable of improving their Aad, but not their Ab. However, why this should affect Ib is perplexing with the current information. Possibly, the respondents between the Low and Mid levels of Historical Nostalgia felt that the brand was too 'old' as a result of the nostalgic response, but still felt some desire to purchase the brand. Then once the High level was reached, the brand's failing were possibly less evident due to the level of Historical Nostalgia experience. Another possibility is the respondent's feeling Mid level Historical Nostalgia move straight from positive Aad to positive Ib, bypassing the Ab result to some degree. It is clear that future research should be conducted, possibly in the form of Structural Equation Modelling, to better understand this particular result.

### 6.3.8 Conclusion of Study Three: Historical Nostalgia Intensity

This study has examined the three levels of Historical Nostalgia as they affect cognition, emotions, attitudes, and intention.

Affects on cognition seems to be very similar to the Personal Nostalgia intensity group, with achieving a Mid level of Historical Nostalgia being all that is necessary to achieve a significant reaction, as although High compared to Low is of a higher significance, there is no significant benefit in moving from Mid to High. The exception here is the result on Ad-execution relation thoughts, which had no clear significant change between the levels, unlike the Personal Nostalgia intensity case.

In terms of emotions, very mixed results were found. The Negative / Irritation emotion was significantly lowered in the High level as compared to Mid and Low,

while a High level also significantly improved the Upbeat / Elation emotion compared to Low only (a Mid level was also significantly higher than Low and as such all that is needed for a significant affect). Gratitude, similar to the Upbeat / Elation emotions, needed at least a High level to be significantly affected compared to Low, but unlike the Upbeat / Elations emotion that also significantly benefited from a Mid compared to Low comparison, the Gratitude emotion received no benefit from Low to Mid, or even Mid to High. The Warm / Tender emotion was affected at each increase of Historical Nostalgia, while the Serenity / Calm emotion saw no significant increase, although it was close. It is clear from these results that the affect that varying levels of Historical Nostalgia has on emotions is more complex than the Personal Nostalgia case, and as such, may need to be treated with caution, in addition to the need for future research in this area.

Finally, attitudes and intentions also experienced some interesting result, with Aad and Ib clearly improving at each Historical Nostalgia intensity level, but with Ab needing to reach at least a High level before significant change was evident.

Again, further research should explore this occurrence to identify the lack of change in the Mid Historical Nostalgia level in comparison to other responses.

This research question is an important step in understanding Historical Nostalgia as its own reaction to advertising appeals independently of Personal Nostalgia.

## 6.4 Conclusion of Chapter Six

The analysis of results as seen in this chapter provides a considerable amount of evidence for the need to treat nostalgic reactions to advertising appeals as two separate appeals (Personal and Historical) should increased rigour and accuracy of projected and actual responses be desired. Each study in Phase Two has discussed the implications of the results at length and as such they will not be repeated in full here. In summary of the results however, it can be seen that Personal Nostalgia generally has more positive effects that Historical nostalgia on the specific cognitive, emotional, attitudinal and intentions tested in this research, although some aspects (for example, it's negative effect on the number of brand-message related thoughts) may be a concern.

Likewise, in exploring the two responses independently of each other it was evident that in the Personal condition, often respondents were affected as each level of Personal Nostalgic response was reached in the emotion, attitude, and intention responses, but that only a Mid level was needed before significance in cognitive responses ceased to exist. The Historical condition shared this cognitive response, but in the case of emotions there was increase complexity than under the Personal Nostalgia intensity condition. This was likewise the case in one of the attitudinal measures (Ab), although Ib seemed to improve at each level. These results give an indication for the need to develop knowledge on the two nostalgia reaction types independently of each other to a further extent.

As discussed, the specific hypotheses and research questions should be examined for more in-depth analysis of each result.

These results are highly significant in a number of ways, conceptually, methodologically, and managerially, and will provide a starting point for many future research directions. However, they are also a number of limitations to the results that should be discussed. Chapter 7 explores these limitations, future directions, and overall significance of the research in depth.

# **Chapter 7**

# - Conclusion

# 7.1 Overview

This chapter explores the many contributions made by this research in terms of conceptual, methodological and managerial implications and significance. Next the chapter examines the limitations of the study and makes suggestions for future directions as a result of both the findings and identified limitations of the study. To begin, the objectives in Chapter One are restated in Table 7-1 with a short indication of how each of them has been met.

Table 7-1: Original Objectives and Results in brief

Original Objective from Chapter One	Results in brief
To undertake <b>development &amp; validation of two scales</b> . One to test for / measure Personal Nostalgia & one for Historical Nostalgia. This will enable the reactions to be explored independently from each other.	The Personal Nostalgia Scale & Historical Nostalgia Scale were developed & validated successfully in 'Phase One' (Chpt 4).
To discover differences in the effect of the two types of nostalgic responses on <b>cognition</b> . This includes the respondent's number of (total thoughts, ratio of thought & similar), nature (positive or negative), & type (nostalgic, ad-related etc) of thoughts in each response group.	Successful comparison between the two nostalgia types & hypothesis (H <sub>1</sub> ) testing completed with significant results in 'Phase Two: Study One'.
To examine & compare the <b>emotional reactions of the respondents</b> under the two types of nostalgic response.	'Phase Two: Study One' successfully examined & compared emotions (H <sub>2</sub> ) between the two nostalgic responses.
To discover & compare the effect of each nostalgic response type on the viewer's attitude towards an advertisement (Aad), attitude towards brand (Ab), & intentions to purchase the brand (Ib).	'Phase Two: Study One' H <sub>3</sub> & H <sub>4</sub> successfully examined & compared attitudinal & intention reactions between the two nostalgic responses.
To extend the Dual Mediation Hypothesis model of consumer responses under the two nostalgic response conditions. Within this, to examine the relationships (if any) between the explored reactions (e.g. pathway between Aad & Ab, & so on).	H₅ extended this model & drew comparisons between the two nostalgic response types in 'Phase Two: Study One'. Further SEM research of the two nostalgic responses is suggested.
To compare the cognitive, emotional, attitudinal & intention reactions of respondents at different levels of intensity within the Personal & Historical Nostalgia segments. This objective will be explored as a research question as the need to explore the two types of nostalgic responses internally as individual reactions need only occur if the two types are indeed shown to be different.	'Phase Two: Study Two' & 'Three' successfully employed three levels of each nostalgic response independently of one another to further the knowledge of each nostalgic response type.

# 7.2 Contributions / Implications

As a result of the research undertaken in this study, a number of conceptual, methodological and managerial contributions are made. These include support, and in some cases contradiction, of previous works, as well as providing new information previously unknown or empirically unexplored. These specific contributions are delineated in the following sections. For further discussion on specific results, Chapter 6 should be consulted.

## 7.2.1 Conceptual Contributions

The major focus of the study was to test Personal and Historical Nostalgia as two distinct responses to advertising appeals. The purpose was to demonstrate their differences from a marketing viewpoint and illustrate why future researchers and marketers should approach them individually. The research clearly shows that important consumer behaviour reactions differ significantly as a result of the respondent experiencing either Personal or Historical Nostalgia. As such, nostalgia should be identified by its specific type, rather than as simply 'nostalgia' in a unified view, as has been the case in the vast majority of prior research. This is evidenced by the following:

- (a) The successful development and validation (nomological, predictive, discriminant, and convergent) of two scales was undertaken and is discussed in Chapter 4. The Personal Nostalgia Scale and the Historical Nostalgia Scale were developed through seven studies and successfully measured and identified participants who were exposed to cues in advertising specific to each type of nostalgia. This was the first successful indication of nostalgia being dimensionalised into two distinct and empirically tested types with empirical support. Conceptually, this is significant as it indicates support for the hypotheses in the remainder of the study and supports previous researcher's (e.g. Stern 1992) postulations that the two types of nostalgia exist and are significantly distinguishable from each other.
- (b) In terms of conceptual significance, the hypotheses also indicated with empirical evidence some comparative differences in important consumer behaviour reactions as a result of the two nostalgic response types. H<sub>1</sub> examined various

cognitive responses and found significant differences in the type, valence, and proportions as a result of the two nostalgic response types. Conceptually these results supported previous academic's work and suggestions due to the self-referencing nature of the response (e.g. Bettman 1979; Craik and Lockhart 1972; Havlena and Holak 1991; Stern 1992; Sujan, Bettman, and Baumgartner 1993; Williams and Faber 1999; Wright 1980) as well as the ideas developed by the researcher. However, some contradictions of the hypotheses were found, such as no change occurring in the number of total thoughts, which provides new information on the concept of the two nostalgic types. RQ1 also had conceptual significance in being the first to examine cognition under different intensities (Low, Mid, High) of each specific nostalgic response type independently of the other. This indicated a number of future possibilities, further discussed at Section 7.3.

- (c) H<sub>2</sub> explored the changes in emotions found to be consistent between the two response types. These results have moved the concept of emotions in nostalgia into a new field, with indications of clear differences between the two types. Previous research has only explored emotions in nostalgia as a 'unified' concept (e.g. Holak and Havlena 1998). RQ 2 (a/b) followed the significance of RQ1 in exploring the nostalgic responses independently of each other. Results revealed emotional components that were specifically related to each type of nostalgia (Personal or Historical). This finding will impact on future definitions and understanding of the two nostalgic concepts.
- (d) Attitudes and Intentions were examined in H<sub>3</sub> and H<sub>4</sub> (along with RQ3 and RQ4) and extended the knowledge of the effect of each type of nostalgia on these highly important and commonly examined consumer responses to a new level of understanding. Previous studies showed nostalgia affected these responses (e.g. Muehling and Sprott 2004; Pascal, Sprott, and Muehling 2002) but it was empirically unknown what the effect of the two types of nostalgic responses would be. The significance of this finding (along with the results on cognition and emotions) are evident in part due to the large amount of previous work, including models, which employ these reactions. By knowing that the two responses affect these reactions in ways different from each other, some previously developed concepts on nostalgia

may need to be reconfirmed under each specific response type, should the concepts wish to be considered as rigorous.

- (e) H<sub>5</sub> extended and tested the Dual Mediation Hypothesis (DMH) under the two nostalgic response types. While the DMH had empirical support under different conditions (see MacKenzie, Lutz and Belch 1986), it only existed conceptually under the two nostalgic responses. In fact, the DMH model was found to not hold true under the conditions of this study, although this finding need to be reconfirmed for generalisability (discussed in Section 7.3). Findings indicate that this result is likely due to the nostalgic scenarios employed, and is not an indication of the model's accuracy under other conditions. The nostalgic thoughts (Cn), in both Personal (CnP) and Historical (CnH) form, that were used as extensions to the model proved to be successful indicators of other consumer behaviour reactions under the two nostalgic response conditions. This model also provided evidence of the need for new models suitable for the nostalgic responses to be conceptualised that also take into account the emotional responses of consumers (discussed in detail at Section 7.3).
- (f) Finally, concepts related to memory, specifically concerning Autobiographical (e.g. Brewer 1986; Neisser 1988) and Collective Memory (Halbwachs 1950; 1992), were further developed in the context of nostalgia through their use as underpinnings for the hypotheses and explanations of the research results.

The general contribution and conceptual significance of this research is that it has explicitly proven with empirical evidence that Personal and Historical Nostalgia are two different concepts which affect important consumer reactions significantly, thus bridging a major gap in the extant literature.

### 7.2.2 Methodological Contributions

A number of clear methodological contributions have emanated from this research. They are as follows:

(a) The most significant methodological contribution is the development and validation of the two individual scales to measure the two nostalgic reactions. Phase One (Chapter 4) of the research entailed four steps, seven studies, and 1317

respondents, resulting in a 6-item scale for Personal Nostalgia and a 5-item scale for Historical Nostalgia. These scales fulfil an important gap in the current instruments (e.g. Baker and Kennedy 1994; Holbrook 1993; Pascal, Sprott and Muehling 2002) as they are the first to be specifically designed and validated for use to test for the existence and level of the specific types of nostalgia. However, it is noted that these original prior scales were not designed for this purpose; nevertheless, this is still a gap that needed to be satisfied. These two scales will assist greatly in the many future studies examining differences between the two distinct nostalgic types that should be conducted by allowing researchers to test for the existence and level of each nostalgic response independently of each other. This is of particular importance as nostalgia has been implicated in a variety of responses (see Belk 1990, 1991; Brown, Kozinets, and Sherry 2003; Davis 1979; Hirsch 1992; Holbrook 1993; Holbrook and Schindler 1991, 1994, 1996; Muehling and Sprott 2004; Olsen 1995; Stern 1992; and more).

- (b) Within the scale development process a number of sound methods were successfully used to develop the two scales. The use of a Multitrait-Multimethod Matrix (MTMM) (Campbell and Fiske 1959; Churchill 1979) for example, is a method often overlooked. This research successfully undertook the challenge of this method with positive results. The method of scale development in Chapter 4 follows well documented processes and stages, and the results of this research further support these methods.
- (c) The research also utilized both broadcast style and print advertisement to create the two nostalgic responses in the subjects. This shows the ability to elicit both nostalgic response types through these two advertising methods / channels. In terms of the cues used to influence respondents, the method follows suggestions by Stern (1992b) and confirms the suggestions of this, and previous work, as to which cues may draw out particular responses.
- (d) The process and instruments used in conducting the research, in addition to the sound methodology developed predominantly from previous works, also contribute to the methodological significance of the study. This is evidenced not only by the use of the scales developed in the study, but also in the successful collection

of respondent's thoughts, emotions, attitudes, and intentions using previously developed instruments. The success of these instruments applied to the task of comparing Personal and Historical Nostalgia, and the methodological processes in this research, could be replicated or adapted in future studies to establish the other varying effects of Personal and Historical Nostalgia. This could be in terms of generalising the results by using varying samples, or adapting the measures to explore differing effects of the two nostalgic response types.

- (e) The study also successfully utilized Structural Equation Modelling in extending the Dual Mediation Hypothesis model (MacKenzie, Lutz and Belch 1986). This is a method that is gaining popularity in the literature and is shown in this research to be an effective way of describing the relationships / pathways between the explored consumer behaviour reactions with significant and interesting results.
- (f) The research questions in this study also split each sample using interquartile range based on the two developed scales. These six groups appear to be realistic representations of Low, Mid, and High Personal and Historical Nostalgia (although none are considered to be non-nostalgic reactions). This suggests that this method would also be appropriate in future studies.

### 7.2.3 Managerial Contributions

Nostalgia has been identified as a highly effective and persuasive marketing / advertising tactic (Naughton and Vlasic 1998) and as an underlying theme of many marketing and advertising strategies (Cosgrove and Sheridan 2002; Ironson 1999; Lundegaard 2002; Poniewozik 2002; White 2002). It has also been shown to affect people regardless of their age, gender, social class, ethnicity, or other social groupings (Sedikides, Wildschut and Baden 2004). This makes the knowledge of nostalgia highly important to marketers and brand managers as understanding of nostalgic cues and ability to create nostalgia (e.g. Unger, McConocha and Faier 1991; Muehling and Sprott 2004) has been developed. What has not been developed or examined empirically until now are the two distinct types of nostalgia. This research supports the use of nostalgia as an advertising appeal, but has increased the rigour of the knowledge about its use in practical scenarios by empirically

dimensionalising the response to appeals into Personal and Historical types. This research provides marketing practitioners with greater informed decisions on the benefits and costs of evoking each of the two types of nostalgia. It also provides information as to the effect of the intensity / level of each nostalgic response has on the consumers. This is evidenced in the study by the following:

- (a) H<sub>1</sub> showed that a variety of cognitive responses change significantly as a result of the nostalgic response type experienced by consumers. This included changes in the number of particular types of thoughts, changes in the proportion of these thoughts to total thoughts, and the valence of the thoughts. Cognition is a commonly explored consumer response and often used to describe 'how advertising works' (e.g. Vakratsas and Ambler 1999). As such, understanding the different effects that the two nostalgic responses have on such a clearly important consumer reaction is of obvious practical significance. This is combined with the previous discussion of nostalgia as highly affective and able to affect all people. RQ1 also furthered this knowledge by identifying the changes in cognition as a result of the intensity of the two responses. For example, it found that those cognitive responses significantly affected by the change in intensity of both nostalgic response types were only significant in comparing the Low to the Mid and High intensity levels. As such, no significant benefit was obtained in terms of cognitive responses in moving from the Mid to High level. This is of significance to marketers as there may be associated costs (e.g. production costs), risks (e.g. scepticism or sadness), or efforts (e.g. time to create adverts etc.) involved in attempting to elicit a 'High' Personal or Historical nostalgic response. This research shows that in terms of cognition, this is an unnecessary undertaking as no benefit is received, assuming the Mid level is met with more ease. However, as will be seen, this was not the case in emotions.
- (b) H<sub>2</sub> examines the changes in emotions between the two nostalgic responses and, as briefly mentioned, RQ2 found that a benefit is received by encouraging respondents to reach high levels of each nostalgic response when examined independently of the other. This was the case in some emotional components only however, and more in-depth analysis can be seen in Sections 6.1.3, 6.2.4, and 6.3.4. Emotions have also been used to explain consumer reactions, as noted by Huang

(2001) who lists a range of studies that explore the importance of emotional reactions (e.g. Havlena and Holbrook 1986; Havlena, Holbrook and Lehmann 1989; Holbrook and Westwood 1989; Mano and Oliver 1993; Oliver 1992, 1993, 1994; Oliver, Rust and Varki 1997; Westbrook 1987; Westbrook and Oliver 1991). Considering the results of the hypothesis show that there are differences in emotions as a result of the nostalgic response type (see H<sub>2</sub>) or intensity (see RQ2), combined with nostalgia's importance in marketing (Vakratsas and Ambler 1999 and the other literature discussed), this research is no doubt significant to marketers.

(c) The attitudes and intentions of consumers are possibly the most important concerns for practitioners and are often used as the end 'goal', objective, or response in many models of advertising and marketing (e.g. Brown and Stayman 1992; Fishbein and Ajzen 1975; MacKenzie, Lutz and Belch 1986; Vakratsas and Ambler 1999). H<sub>3</sub> and H<sub>4</sub> of this research indicate a difference in these reactions as a result of the nostalgic response type. The instruments used in this research indicate that Personal Nostalgia is more affective than Historical Nostalgia in positively affecting attitude towards the advert, attitude towards the brand, and intention to purchase the brand. As discussed in great detail throughout the research, this is expected to be a result of consumer's increasingly autobiographical response (see Brewer 1986; Neisser 1988) when experiencing Personal Nostalgia as opposed to the lesser extent of this occurring under a Historical Nostalgia response. Historical Nostalgia is instead expected to draw upon Collective Memory (Halbwachs 1950, 1992), a response expected to have less salient connections and emotional connections to respondents. As examined at length in the discussion of the results in Chapter 6, these have unquestionable practical significance to marketers and brand managers alike. RQ3 and RQ4 also provide results as to the affects of intensity of each response type on these reactions, which is also of clear practical significance should marketers decide on which form of nostalgia they will attempt to employ, but are concerned about the level of response each advert is bringing forth in respondents. The range of research questions throughout the study provide knowledge useful for comparing advertisements and more accurately forecasting their affect on consumers in terms of cognition, emotions, attitudes, and intentions.

- (d) H<sub>5</sub> contributes to the managerial significance of this study by providing an overall understanding of the connections between the various consumer behaviour measures examined in the form of a Structural Equation Model. It indicates that the scenario explored in this study could be considered low involvement and that under both nostalgic response types the processing method was more peripheral rather than central. This is of significance to marketers when trying to decide which elements and cues will be included in their advertising. However, as discussed in Section 7.3 there were limitations to the models and suggested future directions as a result.
- (e) The discussed managerial significance and implications will be of use to any product or brand that uses no talgic appeals on advertising, or even has inherent nostalgic connotations. For example, companies such as Coca-cola, Volkswagen, McDonalds, Hungry Jacks, and Kraft, along with movie makers, musicians, the fashion industry, antique providers, and many others, consciously use nostalgic appeals in promoting their products and brand. However, until this point, they would most likely do so without knowing specifically what type of nostalgia they are trying to encourage. With this being the case, there would also be a lesser understanding of the expected results that this would achieve, until now. Even brands that do not consciously try to make their customers (or potential customers) feel any form of nostalgic reaction may, dependent on the type of customer, inadvertently be extracting one (or both) of these nostalgic response types. The extended knowledge this research has provided could assist in explaining reactions previously ambiguous in nature. For example, a company purposely (or inadvertently) achieving high levels of Personal Nostalgia in one customer group and Historical Nostalgia in another, may have not been able to explain (or, explained incorrectly) the change between particular customers thoughts about ad-execution, distraction from brand messages in the advert, emotions, attitudes, or intentions (among others). This research provides new possibilities as to why these important reactions may occur as they, and others, have been found to significantly change when respondents experience one type of nostalgic response or the other.

In summary, any response to advertising cues, especially one that can be somewhat controlled by marketers, which will significantly influence the thoughts,

emotions, attitudes and intentions of consumers, is of notable practical implications. Nostalgia is such a response, and the conceptualisation and empirical results in this research that dimensionalise nostalgia into Personal and Historical Nostalgia is of clear significance across a range of marketing areas and other disciplines.

## 7.3 Limitation and Future Research Directions

As this study has successfully achieved its objective in showing that the two nostalgic response types should be treated as individual appeals, there are many avenues for future directions due to nostalgia's implication in a variety of areas (for example, see Belk 1990, 1991; Brown, Kozinets, and Sherry 2003; Davis 1979; Hirsch 1992; Holak and Havlena 1992, 1998; Holbrook 1993; Holbrook and Schindler 1991, 1994, 1996; Meyers 2001; Olsen 1995; Stern 1992; Zhou, Sedikides, Wildschut, and Gao 2008). There are also some future directions indicated due to limitations of this research, as in many studies. For example, generalisability is often a concern in studies and replication under varying conditions is warranted. This, and other conditions and directions, are subsequently discussed.

It may be possible that the use of the Kodak brand had an influence on the results of the study, especially concerning attitude towards brand (Ab). As Kodak is a well-known brand, the respondent's existing beliefs, attitudes and experience with the product may have been already been resistant to change. Although this adds to the realism that many marketers may face in the market place with consumers holding prior conceptions, it may have diluted the effects of either of the nostalgic cue's effect in some responses due to preceding perception of the brand. This leads to two suggestions for forthcoming studies. Firstly, future studies may want to use fictitious brands in order to explore a more 'pure' effect of the different types of nostalgia on respondents, although this may affect 'realism' of the results. Alternatively researchers may want to collect respondent's brand beliefs prior to exposure to allow the strength of these beliefs to be taken into account. This brings up another possible future direction.

The study shows that the different types of nostalgia affected attitude towards the advert and brand in varying amounts (see H<sub>3</sub>, H<sub>4</sub>, RQ3, and RQ4). However, any

ability that the nostalgic types have on 'attitude change' is unknown. What level of prior brand conception resistance can be overcome with each nostalgic appeal is unknown and could be explored.

In terms of respondents, it is possible that gender may play a role in affecting either of the two types of nostalgic response examined in this study. This could be explored further. Also in terms of respondent characteristics, this study featured a majority of respondents that indicated themselves as 'Australian' in the various conditions, although other countries were also represented. Respondents were analysed as a whole regardless of their country of origin, resulting in a more realistic depiction of Australian consumer groups. However, changes in response to the nostalgic responses as a result of the culture of respondents may be investigated in the future. For example, the choice of brand used in nostalgic advertising may have different implication between respondents from varying countries due to their experience with the brand. This issue has been discussed under the examination of fictitious brand use discussed earlier in this section. Although not just brand choice response may be altered as a result of culture. The use of the specific stimuli used as a nostalgic cue (e.g. birthday parties vs. Santa Clause) could also change between cultures / countries of origins. This issue of varying stimulus gives rise to the following issue.

The advertisements constructed for this study depicted a variety of 'situations' or images as cues to evoke the two different nostalgic reactions. For example, personal nostalgic cues included birthdays and Santa Clause, while Historical Nostalgia included famous musicians from past eras and pictures of 'olden days'. However, which specific 'scenarios' (for example; family, holidays, events, birthdays) work best to stimulate the desired type of nostalgic response may warrant further research. The choice of cues for each nostalgic response may also change depending on respondent factors such as life station, culture and age. This gives rise to another future direction.

On this situational note, results (especially H<sub>5</sub>) seemed to indicate that the scenario used in this research was low involvement and consumer likely used peripheral rather than central processing to a large degree. As such, conditions to

varying involvement and expected processing types should be undertaken to examine differences in the two nostalgic responses ability to significantly affect respondents. For example, one would expect to see the DMH model (MacKenzie, Lutz and Belch 1986) hold its connection between brand cognitions and attitude towards the brand should the involvement be higher and more central processing take place.

In terms of this model, it is also suggest that the inclusion of emotions be undertaken in future SEM models as the DMH does not explicitly taken into account emotional response (see Geuens and De Pelsmacker 1998). The low amount of prediction explained in the model (especially on attitude towards the advert) may be explained by emotions experienced by the respondent.

The sample used in this study was delimited to a narrow range of ages. This is considered justified for use in this study, as discussed in Chapter 5, as it provided a homogeneous sample for the experimental study. Additionally, amongst the other previously discussed issues, the use of students has been proposed as being representative of general consumers (DelVecchio 2000; Yavas 1994) and young people are targeted with both types of nostalgic appeals. However, the ages of respondents did not allow for extensive examination of the moderating effects of broader / difference age ranges in the study. The moderating effects of age on each specific form of nostalgia, as similarly recommended in previous studies (Holbrook and Schindler 1989, 1991, 1994, 1996) warrants further investigation as it is believed that nostalgia reactions will differ as respondents pass through various times or stages in their life (Davis 1979). This 'station' could also indicate the use of students to have differing results as to that of, for example, white-collar professionals, regardless of age. Dijkstra and Kaup (2005) explore differences in Autobiographical Memory retrieval with comparisons between age groups and found significant results. The research conducted in this doctoral thesis would benefit from such a comparison.

Regarding the music used in the advert, the study only tested one piece of music in order to keep consistency. The song was considered 'unfamiliar' in order to try and attempt to decrease any prior connection of the respondents to the song from effecting results. This being the case, other music compositions may wish to be

tested in conjunction with the two types of nostalgia to test for any alteration in reactions. The use of an inherently nostalgic piece (for example, maybe 'yesterday' by the Beatles) may have had a significant increase in historical reaction, or perhaps a 'Christmas tune' could have enhanced Personal Nostalgia. Background music has been shown to effect product perceptions (Zhu and Meyers-Levy 2005), and should be explored in conjunction with the specific nostalgic reactions. An array of musical variations may be explored, including the use of music that depicts a specific time period, to effects of tempos, instruments, message content and more.

It is clear from this research that the two types of nostalgia have differing effects on consumer behaviour. Knowing this, it would be warranted for future studies to tests these two nostalgic types against other reactions of consumer behaviour that are expected to be manipulated by nostalgic cues such as; self-concept, brand loyalty, brand meaning, the human senses, consumption preferences, literary criticism, and Collective Memory (Muehling and Sprott 2004).

It is notable that the factor analysis in Phase One: Stage One of the scale development did in fact indicate the presence of a third item which did not clearly fall under either Personal or Historical Nostalgic responses. This factor included items such as 'Makes me think that things used to be better in the good old days, Makes me realise the past is better than the present, Makes me wish I could go back to my past, (and) Reminds me that things were better in the past'. Each of these items is in reference to the past being better, or have a preference to the present. These thoughts could be generally perceived as negative, supporting the view of nostalgia as a bittersweet emotion (Baker and Kennedy 1994; Havlena and Holak 1991; Hirsch 1992; Holak and Havlena 1992). This shows a general 'discontentment with present' as discussed, but could also actually be more of a 'preference for past'. This may indicate consumers desire for the past, and such survey item's strength may be an indicator of what the consumer is willing to do to re-capture at least part of their lost past. These items may be extended and explored further to provide marketers another indicator of their customer's convictions or strength of resolution to recapture these lost moments. This could indicate changes in the amount consumer's are willing to spend to 'recapture' the past. However, whether or not these items are any difference

from the measure of nostalgic proneness developed previously (Holbrook 1993) would need to be established.

Also in terms of negative nostalgia (e.g. Muehling and Sprott 2004) is the fact that negative nostalgia did appear to exist in this research. This may be due to negative experiences in one's past or, as suggested by Stern (1992), ads may have been discordant with expectations of one's own past. As stated in Krishnamurthy and Sujan (1999), marketers should take caution, and future research may want to explore negative nostalgic responses under Personal and Historical Nostalgia.

Despite the limitations and further study warranted in the hope to better understand the use of nostalgic appeals, the present research has provides a needed contribution to marketing in the comparative analysis of the two types of nostalgia. The study offers new findings and support for the use of nostalgia and further developments in this field are sure to be made that are greatly assisted by the discoveries of this research.

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### Appendix A

## **Advert: Personal Nostalgia (stills shots)**

This appendix provides a selection of still shots from the broadcast style presentation shown to respondents containing Personal Nostalgic cues.









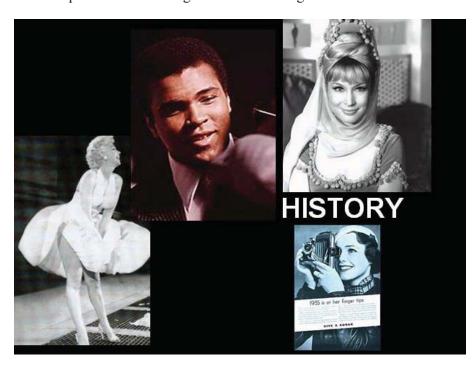




### Appendix B

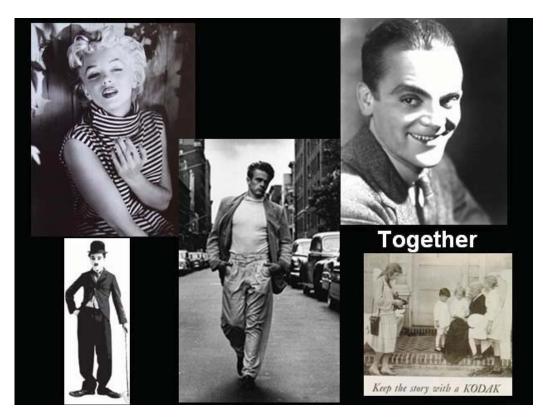
## **Advert: Historical Nostalgia (still shots)**

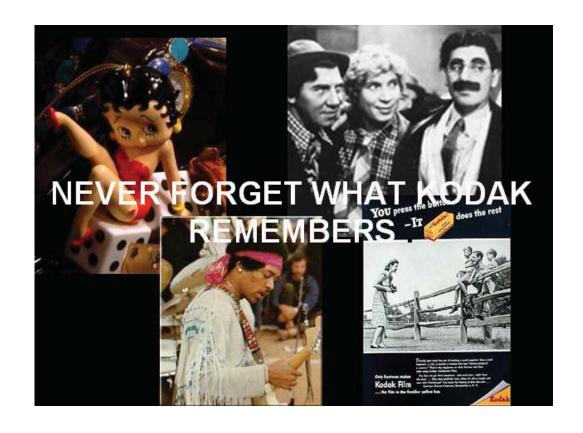
This appendix provides a selection of still shots from the broadcast style presentation shown to respondents containing Historical Nostalgic cues.













## Appendix C Survey Instrument: Phase One, Stage One

Note: survey has been reformatted to fit margins of the thesis. This has resulted in smaller font size than the original. Readability of original survey was superior.

Rate how strongly you agree with the following statements / descriptions in terms of your <u>feelings and / or thoughts</u> in response to the advertisement you have just seen. Circle 1 for strongly disagree and 7 for strongly agree

		Strongly Disagree					S	Strongly Agree
1.	Memories of good times in my past	1	2	3	4	5	6	7
2.	Its the good old days	1	2	3	4	5	6	7
3.	Things were better in the past	1	2	3	4	5	6	7
4.	An earlier time	1	2	3	4	5	6	7
5.	Days of old	1	2	3	4	5	6	7
6.	Previous times	1	2	3	4	5	6	7
7.	All about my past	1	2	3	4	5	6	7
8.	My childhood days	1	2	3	4	5	6	7
9.	About my future	1	2	3	4	5	6	7
10.	Things were better in times before I was born	1	2	3	4	5	6	7
11.	Memories of being a kid	1	2	3	4	5	6	7
12.	Happy I grew up in my time rather than another	1	2	3	4	5	6	7
13.	Memories of good times from my past	1	2	3	4	5	6	7
14.	When I was young	1	2	3	4	5	6	7
15.	Things from previous generations are better	1	2	3	4	5	6	7
16.	Good times from my past	1	2	3	4	5	6	7

	Strongly Disagree					,	Strongly Agree
17. Fills me with longing	1	2	3	4	5	6	7
18. Former times	1	2	3	4	5	6	7
19. About times of yore	1	2	3	4	5	6	7
20. Sad thoughts about the past that is lost, yet it is a nice memory	1	2	3	4	5	6	7
21. Previous generations	1	2	3	4	5	6	7
22. Makes me feel sentimental	1	2	3	4	5	6	7
23. About times past	1	2	3	4	5	6	7
24. A time before I was born	1	2	3	4	5	6	7
25. About olden times	1	2	3	4	5	6	7
26. Fills me with yearning	1	2	3	4	5	6	7
27. A happy time before I was born	1	2	3	4	5	6	7
28. I wish I had things from my parents generation	1	2	3	4	5	6	7
29. About what went before	1	2	3	4	5	6	7
30. Things used to be better in the good old days	1	2	3	4	5	6	7
31. My childhood was better than my present	1	2	3	4	5	6	7
32. Experiences from my past	1	2	3	4	5	6	7
33. About past eras	1	2	3	4	5	6	7
34. Things are better now than in the past	1	2	3	4	5	6	7
35. Positive feelings about a time before I was born	1	2	3	4	5	6	7
36. Happy memories, but makes me sad also	1	2	3	4	5	6	7
37. Wish I could have lived in the past	1	2	3	4	5	6	7

	Strongly Disagree						trongly Agree
38. About an earlier period	1	2	3	4	5	6	7
39. Glad I'm not still in my childhood	1	2	3	4	5	6	7
40. About times gone by	1	2	3	4	5	6	7
41. Previous generations were better than this one	1	2	3	4	5	6	7
42. Wish I could recapture my childhood	1	2	3	4	5	6	7
43. The world today is not as good as it was	1	2	3	4	5	6	7
44. About long-ago	1	2	3	4	5	6	7
45. Wish I grew up in a previous generation instead	1	2	3	4	5	6	7
46. A pleasant reminder of my past	1	2	3	4	5	6	7
47. Things of yesteryear	1	2	3	4	5	6	7
48. Of days gone by	1	2	3	4	5	6	7
49. Memories that make me feel a sense of lost	1	2	3	4	5	6	7
50. An innocence lost	1	2	3	4	5	6	7
51. Make me experience 'bittersweet' emotions	1	2	3	4	5	6	7
52. In times before I was born things were better	1	2	3	4	5	6	7
53. Things I have not experienced directly	1	2	3	4	5	6	7
54. I miss my childhood	1	2	3	4	5	6	7
55. About what came before	1	2	3	4	5	6	7
56. The good old days, before I was born	1	2	3	4	5	6	7
57. Sad thoughts about a past I have lost	1	2	3	4	5	6	7
58. Makes me imagine what previous generations were like	1	2	3	4	5	6	7
59. Wish I could go back to my past	1	2	3	4	5	6	7

	Strongly Disagree						trongly Agree
60. The world was a better place in the past	1	2	3	4	5	6	7
61. Generations before my own were better	1	2	3	4	5	6	7
62. Wish I still had things from my childhood	1	2	3	4	5	6	7
63. About forgotten times	1	2	3	4	5	6	7
64. Rather be living now than in a previous generation	1	2	3	4	5	6	7
65. About when I was young	1	2	3	4	5	6	7
66. Wish I could acquire things from previous generations	1	2	3	4	5	6	7
67. About an elapsed period	1	2	3	4	5	6	7
68. Feel the past is better than the present	1	2	3	4	5	6	7
69. About bygone times	1	2	3	4	5	6	7
70. Happy memories from my past	1	2	3	4	5	6	7
71. Reminisce about a time before I was born	1	2	3	4	5	6	7
72. A pleasant reminder of a past era	1	2	3	4	5	6	7

#### Part 2: Demographics

1.	What is your gender? (Please tick one)
	a) Male [ ] b) Female [ ]
2.	What is your primary occupation? (Please tick one)
	a) Student [ ] b) Self employed [ ] c) Professional [ ] d) Unemployed [ ] e) Retired [ ] f) Skilled Worker [ ] g) Home maker [ ] h) Other (specify)
3.	Please indicate what age you will be/are this year (2006) years old
4.	Do you live with your parent/s or guardian a) Yes [ ] b) No [ ]
5.	What is your country of origin
6.	How long have you lived in Australia? years OR _ all my life (please tick if so)

Thank you for your participation.

# Appendix D Results: Phase One, Stage One (Initial EFA)

#### Rotated Component Matrix(a)

	Component								
	1	2	3	4	5	6	7		
16.Good times from my past	.883								
13.Memories of good times from my past	.853								
8.My childhood days	.846								
14.When I was young	.835								
46.A pleasant reminder of my past	.814								
11.Memories of being a kid	.801								
70.Happy memories from my past	.799								
32.Experiences from my past	.778								
65.About when I was young	.767								
1.Memories of good times in my past	.742								
7.All about my past	.667				300				
52.In times before I was born things were better		.798	.288						
41 Previous generations were better than this one		.777	.210						
60.The world was a better place in the past		.756							
61.Generations before my own were better		.750							
45. Wish I grew up in a previous generation instead		.750							
37.Wish I could have lived in the past		.742							
68. Feel the past is better than the present		.711							
30. Things used to be better in the good old days	.205	.704					283		
15.Things from previous generations are better	.200	.669			468		.200		
43.The world today is not as good as it was		.663			.356				
3. Things were better in the past		.657			245	.209			
28.I wish I had things from my parents generation		.640	.349		240	.203			
59.Wish I could go back to my past	.247	.634	.545		.214				
31.My childhood was better than my present	.241	.593			276	.376			
24.A time before I was born		.000	.845		.270	.070			
58.Makes me imagine what previous generations									
were like			.772						
56.The good old days, before I was born		.241	.760	.202					
27.A happy time before I was born		.269	.732						
35.Positive feelings about a time before I was born			.709			246			
25.About olden times			.704	.232			350		
21.Previous generations			.682	.238		.256			
33.About past eras			.600	.432					
71.Reminisce about a time before I was born		.223	.586	.328			.344		
53. Things I have not experienced directly		.219	.567		.361				
29.About what went before			.544	.443			262		
40.About times gone by			.244	.740					
38.About an earlier period			.359	.707					
44.About long-ago			.205	.677	.256		225		
55.About what came before			.502	.586					
69.About bygone times			.344	.410	.478	.277			
67.About an elapsed period			.349	.364	.446				
9.About my future	374			.268		.540			
23.About times past	.294		.295	.438		.516			
72.A pleasant reminder of a past era			.467	.403			.467		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 10 iterations.

Appendix E Results: Phase One, Stage One EFA (no suppression)

#### Rotated Component Matrix(a)

	Component		
	1	2	
16.Good times from my past	.891	036	
14.When I was young	.863	138	
13.Memories of good times from my past	.860	069	
11.Memories of being a kid	.831	104	
70.Happy memories from my past	.830	027	
8.My childhood days	.829	133	
32.Experiences from my past	.801	.081	
65.About when I was young	.795	077	
56.The good old days, before I was born	076	.825	
24.A time before I was born	200	.805	
58.Makes me imagine what previous generations were like	099	.772	
71.Reminisce about a time before I was born	041	.740	
35.Positive feelings about a time before I was born	026	.737	
21.Previous generations	151	.723	
33.About past eras	.066	.722	
25.About olden times	038	.721	
53.Things I have not experienced directly	181	.669	
72.A pleasant reminder of a past era	.133	.632	

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a Rotation converged in 3 iterations.

# Appendix F Survey Instrument: Phase One, Stage Two

Note: survey has been reformatted to fit margins of the thesis. This has resulted in smaller font size than the original. Readability of original survey was superior.

\_\_\_\_\_

Rate how strongly you agree with the following statements / descriptions in terms of your <u>feelings and / or thoughts</u> in response to the advertisement you have just seen. Circle 1 for strongly disagree and 7 for strongly agree.

	Strongly Disagree						Strongly Agree
I don't understand why people keep old things from the past	1	2	3	4	5	6	7
2. This ad reminds me of an experience from the past	1	2	3	4	5	6	7
3. They don't make 'em like they used to	1	2	3	4	5	6	7
4. Is a pleasant reminder of the past	1	2	3	4	5	6	7
5. Reminisce about a time before I was born	1	2	3	4	5	6	7
6. All about my past	1	2	3	4	5	6	7
7. About what came before	1	2	3	4	5	6	7
8. Pioneer village reconstructions interest me more than books on pioneer life	1	2	3	4	5	6	7
9. Things used to be better in the good old days	1	2	3	4	5	6	7
10. Memories of being a kid	1	2	3	4	5	6	7
11. I associate this ad with a happy experience, yet it makes me feel sad	1	2	3	4	5	6	7
12. Memories of good times from my past	1	2	3	4	5	6	7
13. Evokes fond memories	1	2	3	4	5	6	7
14. Most antiques are simply old junk	1	2	3	4	5	6	7
15. Good times from my past	1	2	3	4	5	6	7
16. Brings back memories of good times from the past	1	2	3	4	5	6	7
17. The past is best preserved in books	1	2	3	4	5	6	7
18. Generations before my own were better	1	2	3	4	5	6	7
19. Products are getting shoddier and shoddier	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
20. Previous generations	1	2	3	4	5	6	7
21. Reminds me of good times in the past	1	2	3	4	5	6	7
22. When I was young	1	2	3	4	5	6	7
23. A time before I was born	1	2	3	4	5	6	7
24. About olden times	1	2	3	4	5	6	7
25. Things from previous generations are better	1	2	3	4	5	6	7
26. I go out of my way to pass through older parts of the city	1	2	3	4	5	6	7
27. About what went before	1	2	3	4	5	6	7
28. Things used to be better in the good old days	1	2	3	4	5	6	7
29. Experiences from my past	1	2	3	4	5	6	7
30. About past eras	1	2	3	4	5	6	7
31. Technological change will insure a brighter future	1	2	3	4	5	6	7
32. Positive feelings about a time before I was born	1	2	3	4	5	6	7
33. Helps me recall pleasant memories	1	2	3	4	5	6	7
34. Wish I could have lived in the past	1	2	3	4	5	6	7
35. About an earlier period	1	2	3	4	5	6	7
36. Reminds me of the good old days	1	2	3	4	5	6	7
37. I don't like the feeling of being surrounded by things that are old	1	2	3	4	5	6	7
38. Previous generations were better than this one	1	2	3	4	5	6	7
39. History involves a steady improvement in human welfare	1	2	3	4	5	6	7
40. The world today is not as good as it was	1	2	3	4	5	6	7
41. I would be happy living in an old house full of antique furniture and mementos of the past	1	2	3	4	5	6	7
42. Wish I grew up in a previous generation instead	1	2	3	4	5	6	7
43. A pleasant reminder of my past	1	2	3	4	5	6	7
44. When I walk down the street, old things catch my eye	1	2	3	4	5	6	7
45. This ad makes me think of an experience which I feel sad about because it is over, yet it is a happy memory	1	2	3	4	5	6	7
46. We are experiencing a decline in the quality of life	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
47. Makes me reminisce about a previous time	1	2	3	4	5	6	7
48. I never consider buying things that are old	1	2	3	4	5	6	7
49. In times before I was born things were better	1	2	3	4	5	6	7
50. Things I have not experienced directly	1	2	3	4	5	6	7
51. This ad does not make me have any feelings about the past	1	2	3	4	5	6	7
52. My childhood days	1	2	3	4	5	6	7
53. The good old days, before I was born	1	2	3	4	5	6	7
54. I would prefer to visit an historical site than merely read about it	1	2	3	4	5	6	7
55. Makes me imagine what previous generations were like	1	2	3	4	5	6	7
56. Steady growth in GNP has brought increased human happiness	1	2	3	4	5	6	7
57. The world was a better place in the past	1	2	3	4	5	6	7
58. Makes me think about when I was younger	1	2	3	4	5	6	7
59. Reminds me of the past	1	2	3	4	5	6	7
60. A pleasant reminder of a past era	1	2	3	4	5	6	7
61. I would like to see how people in this area lived during prehistoric times	1	2	3	4	5	6	7
62. About when I was young	1	2	3	4	5	6	7
63. I wish I could have relive the experience(s) this ad makes me think of	1	2	3	4	5	6	7
64. Modern business constantly builds a better tomorrow	1	2	3	4	5	6	7
65. Feel the past is better than the present	1	2	3	4	5	6	7
66. Old parts of the city are rundown and dirty	1	2	3	4	5	6	7
67. Happy memories from my past	1	2	3	4	5	6	7
68. I do not think about the past when I look at this ad	1	2	3	4	5	6	7
69. Makes me feel nostalgic	1	2	3	4	5	6	7

quest the it	se mark an tion. For e tem is mor	xample, you e favourable	may place a	n 'x' furt	her towa	rds the rig	ght of the s	your reaction to the scale if your reaction to rable)
Rate	your atti	tude toward	ds the Adver	t:				
	1. Bad		::_	<u>:</u> :	::_	<u>.</u> ::	:	Good
2	2. Unfav	ourable	::	<u>_</u> ::	::_	::	:	Favourable
,	3. Negat		1 2 :::	J 7	5	,	0 /	Positive
4	4. Unple		::			,	,	Pleasant
Rate	your atti	tude toward	ds the Brand	l <b>:</b>				
	l. Bad		::_		::_	_::	::	Good
2	2. Dislik	te very much	1 2	3 4	5	0 /	8 9	Like very much
			1 2 :::			,	,	
2	4. Worth		::	3 4	5	0 /	8 9	
Wou	ld you pu	rchase this	product?:					
	l. Unlik	ely	::	<u> </u>	::_	<u>.</u> ::	:	Likely
2	2. Impro	bable	::	::	::_	<del></del>	·:	Probable
	3. Impos		<u>:</u> :		5	,	,	Possible
Part	3: Demo	ographics						
1.	What is y	your gender?	? (Please tick	one)				
	a) Male [	]	b) Fem	ale [				
2.	What is y	your primary	occupation?	(Please	tick one	)		
	a) Studer e) Retired		elf employed killed Worke			ssional [ e maker [		nemployed [ ] cher (specify)
3.	Please in	dicate what	age you will	be/are th	is year (2	2006)	years o	old
4.	Do you l	ive with you	ir parent/s or	guardian	a) Ye	es [ ]	b) No [	]

Thank you for your participation.

What is your country of origin

How long have you lived in Australia? \_\_\_\_ years

## Appendix G

# Scales used in Convergent and Discriminant Analysis

### Nostalgic proneness scale (Holbrook 1993)

- 1. They don't make 'em like they used to
- 2. Things used to be better in the good old days
- 3. Products are getting shoddier and shoddier
- 4. Technological change will insure a brighter future\*
- 5. History involves a steady improvement in human welfare\*
- 6. We are experiencing a decline in the quality of life
- 7. Steady growth in GNP has brought increased human happiness\*
- 8. Modern business constantly builds a better tomorrow\*

### **Evoked Nostalgia (Pascal, Sprott and Muehling 2002)**

- 1. Reminds me of the past
- 2. Helps me recall pleasant memories
- 3. Makes me feel nostalgic
- 4. Makes me reminisce about a previous time
- 5. Makes me think about when I was younger
- 6. Evokes fond memories
- 7. Is a pleasant reminder of the past
- 8. Brings back memories of good times from the past
- 9. Reminds me of the good old days
- 10. Reminds me of good times in the past

### **Experience Scale (Taylor and Konrad 1980)**

- 1. I don't understand why people keep old things from the past<sup>a</sup>
- 2. Pioneer village reconstructions interest me more than books on pioneer life
- 3. The past is best preserved in books<sup>a</sup>
- 4. I go out of my way to pass through older parts of the city
- 5. I don't like the feeling of being surrounded by things that are old<sup>a</sup>
- 6. When I walk down the street, old things catch my eye
- 7. I never consider buying things that are old<sup>a</sup>
- 8. I would like to see how people in this area lived during prehistoric times
- 9. Old parts of the city are rundown and dirty<sup>a</sup>
- 10. I would be happy living in an old house full of antique furniture and mementos of the past
- 11. Most antiques are simply old junk<sup>a</sup>
- 12. I would prefer to visit an historical site than merely read about it.

#### NostScale (Baker and Kennedy 1994)

- 1. This ad reminds me of an experience from the past
- 2. This ad makes me think of an experience which I feel sad about because it is over, yet it is a happy memory.
- 3. This ad does not make me have any feelings about the past\*
- 4. I wish I could have relive the experience(s) this ad makes me think of
- 5. I do not think about the past when I look at this ad\*
- 6. I associate this ad with a happy experience, yet it makes me feel sad

# Appendix H Survey Instrument: Phase One, Stage Three

Note: survey has been reformatted to fit margins of the thesis. This has resulted in smaller font size than the original. Readability of original survey was superior.

\_\_\_\_\_\_

Rate how strongly you agree with the following statements / descriptions in terms of your <u>feelings and / or thoughts</u> in response to the advertisement you have just seen. Circle 1 for strongly disagree and 7 for strongly agree.

		Strongly Disagree					S	Strongly Agree
1.	Memories of being a kid	1	2	3	4	5	6	7
2.	The good old days, before I was born	1	2	3	4	5	6	7
3.	I would prefer to visit an historical site than merely read about it	1	2	3	4	5	6	7
4.	Generations before my own were better	1	2	3	4	5	6	7
5.	Reminisce about a time before I was born	1	2	3	4	5	6	7
6.	Most antiques are simply old junk	1	2	3	4	5	6	7
7.	Good times from my past	1	2	3	4	5	6	7
8.	Pioneer village reconstructions interest me more than books on pioneer life	1	2	3	4	5	6	7
9.	Positive feelings about a time before I was born	1	2	3	4	5	6	7
	Things from previous generations are better	1	2	3	4	5	6	7
11.	I go out of my way to pass through older parts of the city	1	2	3	4	5	6	7
12.	Memories of good times from my past	1	2	3	4	5	6	7
13.	The past is best preserved in books	1	2	3	4	5	6	7
14.	Things used to be better in the good old days	1	2	3	4	5	6	7
15.	When I was young	1	2	3	4	5	6	7
16.	A time before I was born	1	2	3	4	5	6	7
17.	I don't understand why people keep old things from the past	1	2	3	4	5	6	7
18.	The world was a better place in the past	1	2	3	4	5	6	7
19.	About past eras	1	2	3	4	5	6	7
20.	I never consider buying things that are old	1	2	3	4	5	6	7
21.	My childhood days	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
22. Old parts of the city are rundown and dirty	1	2	3	4	5	6	7
23. Wish I could have lived in the past	1	2	3	4	5	6	7
24. In times before I was born things were better	1	2	3	4	5	6	7
25. Makes me imagine what previous generations were like	1	2	3	4	5	6	7
26. The world today is not as good as it was	1	2	3	4	5	6	7
27. I would be happy living in an old house full of antique furniture and mementos of the past	1	2	3	4	5	6	7
28. Wish I grew up in a previous generation instead	1	2	3	4	5	6	7
29. A pleasant reminder of my past	1	2	3	4	5	6	7
30. I don't like the feeling of being surrounded by things that are old	1	2	3	4	5	6	7
31. Previous generations were better than this one	1	2	3	4	5	6	7
32. When I walk down the street, old things catch my eye	1	2	3	4	5	6	7
33. I would like to see how people in this area lived during prehistoric times	1	2	3	4	5	6	7
34. Feel the past is better than the present	1	2	3	4	5	6	7

Rate how strongly you agree with the following statements / descriptions in terms of your <u>feelings and / or thoughts</u> in response to the advertisement you have just seen.

For example, place an 'x' further towards the side of the scale you most agree with. For example:

Happy thoughts : : X : : : Not happy thoughts

	Trappy thoughts			•	•	•	•	110t happy thoughts
35.	Reminds me of the good	:	:	:	:	:	:	Does not Remind me of
	old days							the good old days
36.	This ad reminds me of an	:	:	:	:	:	:	This ad does not remind
	experience from the past							me of an experience from
								the past
37.	History involves a steady	:	:	:	:	:	:	History does not involve a
	improvement in human							steady improvement in
	welfare							human welfare
38.	This ad makes me think	:	:	:	:	:	:	This ad does not make me
	of an experience which I							think of an experience
	feel sad about because it							which I feel sad about
	is over, yet it is a happy							because it is over, yet it is
	memory							a happy memory
39.	We are experiencing a	:	:	:	:	:	:	We are not experiencing a
	decline in the quality of							decline in the quality of
	life							life

40	Makes me reminisce	Γ.						Does not makes me
40.			•	•	•	•	•	
	about a previous time							reminisce about a previous
								time
41.	Technological change	:	:	:	:	:	:	Technological change does
	will insure a brighter							not insure a brighter future
	future							
42.	Reminds me of good	:	:	:	:	:	:	Does not remind me of
	times in the past							good times in the past
43.	This ad does not make	:	:	:	:	:	:	This ad does make me
	me have any feelings							have feelings about the
	about the past							past
44	Products are getting					:	:	Products are not getting
77.	shoddier and shoddier		•	•	•	•	•	shoddier and shoddier
15	I associate this ad with a							I do not associate this ad
45.		:	:	:	:	:	:	
	happy							with a happy
	experience, yet it makes							experience, yet it makes
	me feel sad							me feel sad
46.	Evokes fond memories	:	:	:	:	:	:	Does not evoke fond
								memories
47.	Things used to be better	:	:	:	:	:	:	Things were not better in
	in the good old days							the good old days
48.	Brings back memories of	:	:	:	:	:	:	Does not brings memories
	good times from the past							of good times from the
								past
49.	Steady growth in GNP	:	•	•	•	•	•	Steady growth in GNP has
	has brought increased		•	·	•	•	·	brought not increased
	human happiness							human happiness
50	Makes me think about	:		<u> </u>				Does not make me think
50.		•	•	•	•	•	•	about when I was younger
<i>5</i> 1	when I was younger							
31.	Reminds me of the past	:	:	:	:	:	:	Does not remind me of the
	· · · · · · · · · · · · · · · · · · ·							past
52.	I wish I could have relive	:	:	:	:	:	:	I do not wish I could have
	the experience(s) this ad							relive the experience(s)
	makes me think of							this ad makes me think of
53.	Modern business	:	:	:	:	:	:	Modern business does not
	constantly builds a better							constantly build a better
	tomorrow							tomorrow
54.	Is a pleasant reminder of	:	:	:	:	:	:	Is not a pleasant reminder
	the past							of the past
55	They don't make 'em	:	:	:	:	:	:	They make 'em just like
55.	like they used to	`	•	•	•	•	•	they used to
56	Helps me recall pleasant	:						Does not help me recall
50.	memories		•	•	•	•	•	pleasant memories
	HICHIOTICS							picasani memories
57	T do mos shiml1 41-	<del>                                     </del>						I think about the court of
5/.	I do not think about the	:	:	:	:	:	:	I think about the past when
	past when I look at this							I look at this ad
	ad							
58.	Makes me feel nostalgic	:	:	:	:	:	:	Does not make me feel
								nostalgic

# **Part 2:**

	e mark an 'x' between each of the two items on the scales according to your reaction to the ion. For example, you may place an 'x' further towards the right of the scale if your reaction to
the it	em is more favourable:  unfavourable::::::: favourable)
Rate	your beliefs about the Advert:
	. Bad Good
	2. Unfavourable Favourable
	8. Negative Positive
4	4. Unpleasant Pleasant
	your beliefs about the Brand:
	. Bad Good
	2. Dislike very much Like very much
	B. Unfavourable Favourable Description of the second seco
4	4. Worthless Valuable
Wou	ld you purchase this product?:
	l. Unlikely Likely
,	2. Improbable Probable
	B. Impossible Possible
<u>Part</u>	3: Demographics
1.	What is your gender? (Please tick one)
	a) Male [ ] b) Female [ ]
2.	What is your primary occupation? (Please tick one)
	a) Student [ ] b) Self employed [ ] c) Professional [ ] d) Unemployed [ ]
	e) Retired [ ] f) Skilled Worker [ ] g) Home maker [ ] h) Other (specify)
3.	Please indicate what age you will be/are this year (2006) years old
4.	Do you live with your parent/s or guardian a) Yes [ ] b) No [ ]
5.	What is your country of origin
6	How long have you lived in Australia? years OR = all my life (please tick if so)

Thank you for your participation.

# Appendix I

# **Correlations of Scales in MTMM**

## Personal Nostalgia Scale study

#### Correlations

		Pscale	Nscale
Pscale	Pearson Correlation	1	.491(**)
	Sig. (2-tailed)		.000
	N	101	101
Nscale	Pearson Correlation	.491(**)	1
	Sig. (2-tailed)	.000	
	N	101	101

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

#### Correlations

		Escale	NPscale
Escale	Pearson Correlation	1	.462(**)
	Sig. (2-tailed)		.000
	N	101	101
NPscale	Pearson Correlation	.462(**)	1
	Sig. (2-tailed)	.000	
	N	101	101

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

# **Historical Nostalgia Scale study**

#### Correlations

		Hscale	ENscale
Hscale	Pearson Correlation	1	.440(**)
	Sig. (2-tailed)		.000
	N	125	125
ENscale	Pearson Correlation	.440(**)	1
	Sig. (2-tailed)	.000	
	N	125	125

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

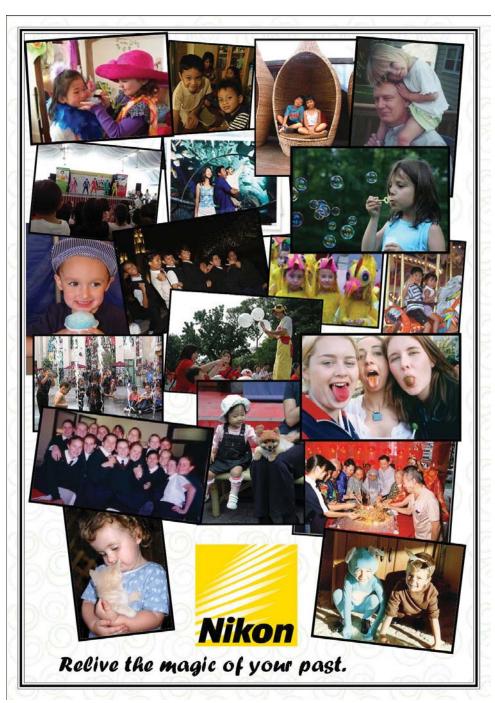
#### Correlations

		Escale	NPscale
Escale	Pearson Correlation	1	.398(**)
	Sig. (2-tailed)		.000
	N	125	125
NPscale	Pearson Correlation	.398(**)	1
	Sig. (2-tailed)	.000	
	N	125	125

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

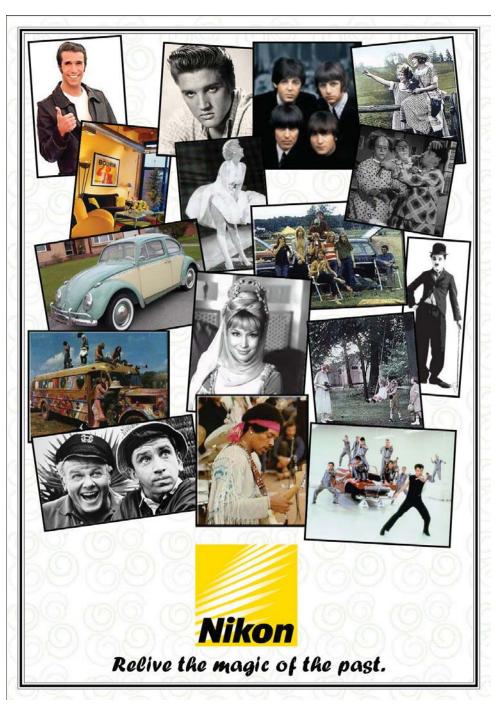
# Appendix J Advert: Phase One, Step Four (Personal Print)

This is a scaled down version of the print advert shown to respondents containing personal nostalgic cues



# Appendix K Advert: Phase One, Step Four (Historical Print)

This is a scaled down version of the print advert shown to respondents containing historical nostalgic cues



# Appendix L Survey Instrument: Phase One, Stage Four

Note: survey has been reformatted to fit margins of the thesis. This has resulted in smaller font size than the original. Readability of original survey was superior.

\_\_\_\_\_

Rate how strongly you agree with the following statements / descriptions in terms of your <u>feelings and / or thoughts</u> in response to the advertisement you have just seen.

Circle 1 for strongly disagree and 7 for strongly agree. <u>PLEASE DO NOT MISS ANY I</u>TEMS.

Strongly Strongly Disagree Agree 1. Good times from my past 2. When I was young 3. My childhood days 4. The good old days, before I was born 5. Makes me imagine what previous generations were like 6. Memories of being a kid 7. About when I was young 8. A time before I was born 9. About past eras 10. Experiences from my past 11. All about my past 12. Reminisce about a time before I was 13. Positive feelings about a time before I was born 14. A pleasant reminder of my past 15. Happy memories from my past 16. About what went before 17. Things I have not experienced directly 18. Memories of good times from my past 19. About olden times 20. Previous generations 21. A pleasant reminder of a past era

PLEASE TURN OVER AND CONTINUE WHEN COMPLETED...

Pa	<u>rt 2:</u>
	ase mark an 'x' between each of the two items on the scales according to your reaction to the
	estion. For example, you may place an 'x' further towards the right of the scale if your reaction to
	item is more favourable:
(e.g	g. unfavourable:::::::favourable)
Ra	te your beliefs about the Advert:
	1. Bad Good
	2. Unfavourable Favourable
	3. Negative Positive
	4. Unpleasant Pleasant
Ra	te your beliefs about the Brand:
	1. Bad Good
	2. Dislike very much Like very much
	3. Unfavourable Favourable Favourable
	4. Worthless Valuable
W	ould you purchase this product?:
	1 77 19 1
	1. Unlikely Likely
	2. Improbable Probable
	3. Impossible Possible
Pai	rt 3: Demographics
1.	What is your gender? (Please tick one)
	a) Male [ ] b) Female [ ]
2.	What is your primary occupation? (Please tick one)
	a) Student [ ] b) Self employed [ ] c) Professional [ ] d) Unemployed [ ]
	e) Retired [ ] f) Skilled Worker [ ] g) Home maker [ ] h) Other (specify)
3.	Please indicate what age you will be/are this year (2006) years old
4	De constitue with a constant of the constant o
4.	Do you live with your parent/s or guardian a) Yes [ ] b) No [ ]
5.	What is your country of origin
6.	How long have you lived in Australia? years OR □ all my life (please tick if so)

Thank you for your participation.

# Appendix M

# **Survey Instrument: Phase Two**

This survey instrument was also produced a second time with identical items, but with the order of said items in a new random order up in an attempt to take into account respondent wear out.

decount respondent wear out.						
Note: survey has been reformatted to fit margins of the thesis. Th	is has i	resulted in				
smaller font size than the original. Readability of original survey was superior.						
Activity 1: Thought elicitation exercise						
In the spaces below, please list all the thoughts that came to mind as you advertisement. List each thought in a separate box. Please list all the thoccurred and your reaction during the viewing of the ad. Please list as as possible. All responses will remain anonymous. There is no right or Do not worry about spelling or grammar.	oughts many t	s that thoughts				
		-				
		-				
		-				

\*\*\*PLEASE NOTE THAT IN ORIGINAL SURVEY THE ABOVE BOXES CONTINUED UNTIL THE END OF THE A4 PAGE\*\*\*

PLEASE DO NOT TURN TO THE NEXT PAGE UNTIL INSTRUCTED

# **Activity 3: Emotions**

Please indicate to what extent you felt the following emotions in response to the **advert**. Please **take your time to carefully consider each emotion**. There are no right or wrong answers. **Please DO NOT MISS ANY ITEMS**. **Circle 1 for strongly disagree and 7 for strongly agree**.

	Strongly Disagree						Strongly Agree
1. Warm-hearted	1	2	3	4	5	6	7
2. Pleased	1	2	3	4	5	6	7
3. Sentimental	1	2	3	4	5	6	7
4. Sad	1	2	3	4	5	6	7
5. Sorrowful	1	2	3	4	5	6	7
6. Tender	1	2	3	4	5	6	7
7. Innocent	1	2	3	4	5	6	7
8. Angry	1	2	3	4	5	6	7
9. Contemplative	1	2	3	4	5	6	7
10. Enraged	1	2	3	4	5	6	7
11. Emotional	1	2	3	4	5	6	7
12. Playful	1	2	3	4	5	6	7
13. Helpless	1	2	3	4	5	6	7
14. Afraid	1	2	3	4	5	6	7
15. Bored	1	2	3	4	5	6	7
16. Loving	1	2	3	4	5	6	7
17. Excited	1	2	3	4	5	6	7
18. Active	1	2	3	4	5	6	7
19. Aroused	1	2	3	4	5	6	7
20. Entertained	1	2	3	4	5	6	7
21. Disgusted	1	2	3	4	5	6	7
22. Lighthearted	1	2	3	4	5	6	7
23. Suspicious	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
24. Involved	1	2	3	4	5	6	7
25. Restful	1	2	3	4	5	6	7
26. Uninformed	1	2	3	4	5	6	7
27. Comfortable	1	2	3	4	5	6	7
28. Affectionate	1	2	3	4	5	6	7
29. Wishful	1	2	3	4	5	6	7
30. Serene	1	2	3	4	5	6	7
31. Full of Craving	1	2	3	4	5	6	7
32. Grateful	1	2	3	4	5	6	7
33. Thankful	1	2	3	4	5	6	7
34. Unimpressed	1	2	3	4	5	6	7
35. Unexcited	1	2	3	4	5	6	7
36. Fearful	1	2	3	4	5	6	7
37. Desirous	1	2	3	4	5	6	7
38. Irritated	1	2	3	4	5	6	7
39. Нарру	1	2	3	4	5	6	7
40. Remorseful	1	2	3	4	5	6	7
41. Regretful	1	2	3	4	5	6	7
42. Pure	1	2	3	4	5	6	7
43. Distressed	1	2	3	4	5	6	7
44. Powerless	1	2	3	4	5	6	7
45. Mad	1	2	3	4	5	6	7
46. Benefited	1	2	3	4	5	6	7
47. Delighted	1	2	3	4	5	6	7
48. Uninvolved	1	2	3	4	5	6	7
49. Calm	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
50. Annoyed	1	2	3	4	5	6	7
51. Skeptical	1	2	3	4	5	6	7
52. Moved	1	2	3	4	5	6	7
53. Peaceful	1	2	3	4	5	6	7
54. Reflective	1	2	3	4	5	6	7
55. Retrospective	1	2	3	4	5	6	7
56. Imaginative	1	2	3	4	5	6	7
57. Bittersweet	1	2	3	4	5	6	7

# **Activity 4: Attitudinal scales**

Please	mark an 'x' between e	ach of the two items on the	scales according to	o your reaction to
the que	estion. For example, ye	ou may place an 'x' further t	owards the right o	of the scale if your
reactio	on to the item is more f	avourable:	_	-
(e.g. 1	unfavourable:	_::::	: <u>x</u> _: favo	ourable)
	<u>de towards Advert</u>			
Rate y	our beliefs about the	Advert:		
1.	Bad			Good
2.	Unfavourable			Favourable
3.	Negative			Positive
4.	Unpleasant			Pleasant
	de towards Brand			
Rate y	our beliefs about the	Brand:		
1.	Bad			Good
2.	Dislike very much			Like very
	much			
3.	Unfavourable			Favourable
4.	Worthless			Valuable
Intent	ion to Purchase the E	rand		
Would	l you purchase this p	oduct?:		
1.	Unlikely			Likely
2.	Improbable			Probable
3	Impossible			Possible

## **Activity 5: Questionnaire**

Rate how strongly you agree with the following statements / descriptions in terms of your <u>feelings and / or thoughts</u> in response to the advertisement you have just seen. Circle 1 for strongly disagree and 7 for strongly agree. <u>PLEASE DO NOT MISS ANY ITEMS.</u>

	Strongly Disagree						trongly Agree
1. Good times from my past	1	2	3	4	5	6	7
2. When I was young	1	2	3	4	5	6	7
3. My childhood days	1	2	3	4	5	6	7
4. The good old days, before I was born	1	2	3	4	5	6	7
5. Makes me imagine what previous generations were like	1	2	3	4	5	6	7
6. Memories of being a kid	1	2	3	4	5	6	7
7. About when I was young	1	2	3	4	5	6	7
8. A time before I was born	1	2	3	4	5	6	7
9. About past eras	1	2	3	4	5	6	7
10. Experiences from my past	1	2	3	4	5	6	7
11. All about my past	1	2	3	4	5	6	7
12. Reminisce about a time before I was born	1	2	3	4	5	6	7
13. Positive feelings about a time before I was born	1	2	3	4	5	6	7
14. A pleasant reminder of my past	1	2	3	4	5	6	7
15. Happy memories from my past	1	2	3	4	5	6	7
16. Memories of good times from my past	1	2	3	4	5	6	7
17. About olden times	1	2	3	4	5	6	7
18. Previous generations	1	2	3	4	5	6	7
19. A pleasant reminder of a past era	1	2	3	4	5	6	7

## **Activity 6: Demographics**

The following section contains some demographic questions to help us classify your responses. Please write your answer in the space provided or tick the box as applicable.

1.	What is your gender? (Please tick one) a) Male [ ] b) Female [ ]								
2.	What is your primary occupation? (Please tick one) a) Student [ ] b) Self employed [ ] c) Professional [ ] d) Unemployed [ ] e) Retired [ ] f) Skilled Worker [ ] g) Home maker [ ] h) Other (specify)								
3.	Please indicate what age you will be/are this year (2007) years old								
4.	Do you live with your parent/s or guardian a) Yes [ ] b) No [ ]								
5.	What is your country of origin								
6.	How long have you lived in Australia? years OR □ all my life (please tick if so)								

# Appendix N Hypothesis One

## **Group Statistics**

	Nost Reaction Group	N	Mean	Std. Deviation	Std. Error Mean
CnP	Personal	514	3.7101	3.55952	.15700
	Historical	292	.5993	1.40461	.08220
CnH	Personal	514	.3385	.87537	.03861
	Historical	292	2.1678	2.16722	.12683
Ratio_Pthghts_to_Total	Personal	514	.5057	.36998	.01632
	Historical	292	.0869	.18943	.01109
Ratio_Hthghts_to_Total	Personal	514	.0535	.13626	.00601
	Historical	292	.3348	.28014	.01639
CnP_vi	Personal	514	2.9689	3.15534	.13918
	Historical	292	.4384	1.10589	.06472
CnH_vi	Personal	514	.2140	.68464	.03020
	Historical	292	1.3596	1.64687	.09638
Tot_C	Personal	514	6.7335	3.06730	.13529
	Historical	292	6.4247	2.72783	.15963
VI_tot	Personal	514	4.4261	3.41356	.15057
	Historical	292	3.2432	3.06837	.17956
Cb	Personal	514	.7860	1.19327	.05263
	Historical	292	1.0137	1.25173	.07325
Cad	Personal	514	1.6459	1.95742	.08634
	Historical	292	2.3253	2.16350	.12661

		드	dependent	Independent Samples Test					
	Levene's Test for	Test for							
								95% Confidence Interval of the	fidence of the
						Mean	Std. Error		
CnP Equal variances assumed	190.690	000	14.311	804	000	3.11080	.21737	2.68412	3.53748
Equal variances not assumed			17.553	735.370	000	3.11080	.17722	2.76289	3.45872
CnH Equal variances assumed	200.891	000	-16.872	804	000	-1.82929	.10842	-2.04211	-1.61647
Equal variances not assumed			-13.798	345.756	000	-1.82929	.13257	-2.09004	-1.56853
Ratio_Pthghts_to_Total Equal variances assumed	296.944	000	18.044	804	000	.41883	.02321	.37326	.46439
Equal variances not assumed			21.230	796.642	000	.41883	.01973	.38010	.45755
Ratio_Hthghts_to_Total Equal variances assumed	252.906	000	-19.133	804	000	28130	.01470	31016	25244
Equal variances not assumed			-16.111	370.681	000	28130	.01746	31564	24697
CnP_vi Equal variances assumed	200.183	000	13.247	804	000	2.53052	.19103	2.15564	2.90549
Equal variances not assumed			16.487	701.052	000	2.53052	.15349	2.22917	2.83186
CnH_vi Equal variances assumed	235.785	000	-13.813	804	000	-1.14558	.08293	-1.30837	98279
Equal variances not assumed			-11.343	349.038	000	-1.14558	.10100	-1.34422	94694
Tot_C Equal variances assumed	3.402	.065	1.429	804	.153	.30881	.21610	11539	.73300
Equal variances not assumed			1.476	664.659	.140	.30881	.20925	10207	.71968
VI_tot Equal variances assumed	2.676	.102	4.902	804	000	1.18292	.24130	.70926	1.65658
Equal variances not assumed			5.048	659.207	000	1.18292	.23433	.72279	1.64305
Cb Equal variances assumed	700.	.934	-2.558	804	.011	22771	20690.	40244	05297
Equal variances not assumed			-2.524	581.164	.012	22771	.09020	40486	05056
Cad Equal variances assumed	4.008	.046	4.557	804	000	67943	.14909	97207	38679
Equal variances not assumed			4.434	556.328	.000	67943	.15325	98044	37842

# Appendix O Hypothesis Two

## **Group Statistics**

	Nost Reaction Group	N	Mean	Std. Deviation	Std. Error Mean
E_Neg_Irr	Personal	514	1.7712	.92643	.04086
	Historical	292	1.7849	.93650	.05480
E_Up_Elat	Personal	514	3.9990	1.26862	.05596
	Historical	292	3.5736	1.15495	.06759
E_Loss_Regrt	Personal	514	2.6265	1.16104	.05121
	Historical	292	2.4341	1.20215	.07035
E_Ser_Calm	Personal	514	4.9981	1.08117	.04769
	Historical	292	4.9612	.98170	.05745
E_Wrm_Tend	Personal	514	4.6550	1.14106	.05033
	Historical	292	4.3767	1.05428	.06170

# Appendix O Continued...

		95% Confidence	Interval of the	Std. Error	.0681614751 .12006	.0683614798 .12053	.09004 .24865 .60214	.08775 .25310 .59770	.08619 .02321 .36156	.08702 .02148 .36328	.0766711363 .18737	.0746610974 .18348	.08137 .11855 .43801	.07962 .12193 .43463
				Mean	01373	01373	.42540	.42540	.19238	.19238	.03687	.03687	.27828	.27828
Test					.840	.841	000.	000.	.026	.027	.631	.622	.001	.001
Independent Samples Test					804	599.412	804	652.690	804	587.531	804	654.041	804	645.109
Independe					201	201	4.725	4.848	2.232	2.211	.481	494	3.420	3.495
	Test for				626.		.113		.388		.218		.262	
	Levene's Test for	0			900°		2.516		.745		1.521		1.258	
					Equal variances assumed	Equal variances not assumed	Equal variances assumed	Equal variances not assumed	Equal variances assumed	Equal variances not assumed	Equal variances assumed	Equal variances not assumed	Equal variances assumed	Equal variances not assumed
2					E_Neg_Irr		E_Up_Elat		E_Loss_Regrt		E_Ser_Calm		E_Wm_Tend	

# Appendix P Hypothesis Two EFA (no suppression)

### Rotated Component Matrix(a)

			Component		
	1	2	3	4	5
E50_50_Annoyed	.822	031	.198	095	054
E38_45_Irritated	.772	054	.263	.010	086
E21_21_Disgusted	.727	.098	.301	145	111
E51_51_Skeptical	.720	.017	.097	.135	069
E8_53_Angry	.678	.013	.165	214	.056
E17_17_Excited	070	.844	.073	.028	.089
E18_49_Active	.146	.810	.138	.112	.014
E12_12_Playful	.139	.734	.029	.100	.150
E20_20_Entertained	183	.707	002	.099	.108
E41_48_Regretful	.202	.025	.763	.006	.027
E5_5_Sorrowful	.153	081	.735	058	.179
E40_47_Remorseful	.258	.180	.728	.119	083
E13_13_Helpless	.251	.149	.615	001	032
E53_2_Peaceful	186	.161	.054	.739	.155
E25_25_Restful	.143	.166	.110	.720	023
E49_8_Calm	188	012	142	.717	.233
E7_40_Innocent	.116	.173	007	.119	.745
E3_41_Sentimental	287	.032	107	.042	.695
E6_6_Tender	072	.154	.260	.172	.646

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.

# Appendix Q Hypothesis Three and Hypothesis Four

# **Group Statistics**

	Nost Reaction Group	N	Mean	Std. Deviation	Std. Error Mean
Aad Mean	Personal	514	7.2018	1.44548	.06376
	Historical	292	6.8262	1.50528	.08809
Ab Mean	Personal	514	6.8390	1.30553	.05758
	Historical	292	6.6079	1.38472	.08103
lb Mean	Personal	514	6.4663	1.81308	.07997
	Historical	292	6.1541	2.08566	.12205

Independent Samples Test	Levene's Test for	95% Confidence Interval of the Std. Error	riances 1.788 .182 3.493 804 .001 .37565 .10753 .16457 .58673	riances 3.455 584.719 .001 .37565 .10874 .16208 .58922 med	riances .068 .795 2.363 804 .018 .23113 .09781 .03914 .42313	riances 2.325 575.811 .020 .23113 .09941 .03588 .42638	riances 7.080 .008 2.223 804 .026 .31217 .14042 .03653 .58781	riances 2.139 538.219 .033 .31217 .14592 .02553 .59881
	Levene's Test fo						70.3401	
			Equal variances assumed	Equal variances not assumed	Equal variances assumed	Equal variances not assumed	Equal variances assumed	Equal variances not assumed
			Aad Mean		Ab Mean		lb Mean	

# Appendix R RQ1a

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
CnP	9.202	2	511	.000
CnH	1.740	2	511	.177
Ratio_Pthghts_to_Total	.516	2	511	.597
Ratio_Hthghts_to_Total	1.171	2	511	.311
CnP_vi	12.666	2	511	.000
CnH_vi	2.738	2	511	.066
Tot_C	4.842	2	511	.008
VI_tot	.136	2	511	.873
Cb	.806	2	511	.447
Cad	3.855	2	511	.022

ANOVA

			VA.			
		Sum of		Mean		
		Squares	df	Square	F	Sig.
CnP	Between Groups	458.674	2	229.337	19.399	.000
	Within Groups	6041.133	511	11.822		
	Total	6499.807	513			
CnH	Between Groups	.446	2	.223	.290	.748
	Within Groups	392.652	511	.768		
	Total	393.097	513			
Ratio_CnPtoTl	Between Groups	5.749	2	2.875	22.784	.000
	Within Groups	64.471	511	.126		
	Total	70.220	513			
Ratio_ CnHtoTl	Between Groups	.007	2	.004	.194	.823
	Within Groups	9.518	511	.019		
	Total	9.525	513			
CnP_vi	Between Groups	435.752	2	217.876	23.831	.000
	Within Groups	4671.750	511	9.142		
	Total	5107.502	513			
CnH_vi	Between Groups	.643	2	.321	.685	.505
	Within Groups	239.816	511	.469		
	Total	240.459	513			
Tot_C	Between Groups	141.081	2	70.541	7.693	.001
	Within Groups	4685.403	511	9.169		
	Total	4826.484	513			
VI_tot	Between Groups	560.811	2	280.406	26.452	.000
	Within Groups	5416.879	511	10.601		
	Total	5977.691	513			
Cb	Between Groups	2.812	2	1.406	.987	.373
	Within Groups	727.647	511	1.424		
	Total	730.459	513			
Cad	Between Groups	49.559	2	24.779	6.609	.001
	Within Groups	1915.998	511	3.750		
	Total	1965.556	513			

# **Robust Tests of Equality of Means**

		Statistic(a)	df1	df2	Sig.
CnP	Welch	27.165	2	296.104	.000
CnH	Welch	.348	2	270.473	.706
Ratio_Pthghts_to_Total	Welch	23.496	2	273.410	.000
Ratio_Hthghts_to_Total	Welch	.235	2	278.784	.791
CnP_vi	Welch	38.007	2	294.536	.000
CnH_vi	Welch	.597	2	274.446	.551
Tot_C	Welch	9.068	2	292.077	.000
VI_tot	Welch	27.502	2	276.694	.000
Cb	Welch	.779	2	260.735	.460
Cad	Welch	5.948	2	273.553	.003

a Asymptotically F distributed.

## **Multiple Comparisons**

Depende		(I) Nost Reactio	(J) Nost Reactio	Mean			95% Con Inter	
nt Variable		n Group 3way	n Group 3way	Difference (I-J)	Std. Error	Sig.	Lower	Upper
CnP	Bonferroni	Low	Mid	-2.20488(*)	.37173	.000	-3.0977	-1.3120
			High	-2.14063(*)	.42979	.000	-3.1729	-1.1083
		Mid	Low	2.20488(*)	.37173	.000	1.3120	3.0977
			High	.06426	.37173	1.000	8286	.9571
		High	Low	2.14063(*)	.42979	.000	1.1083	3.1729
			Mid	06426	.37173	1.000	9571	.8286
	Gabriel	Low	Mid	-2.20488(*)	.37173	.000	-3.0822	-1.3276
			High	-2.14063(*)	.42979	.000	-3.1701	-1.1111
		Mid	Low	2.20488(*)	.37173	.000	1.3276	3.0822
		High	High Low	.06426	.37173	.997	8131	.9416
		nigii		2.14063(*)	.42979	.000	1.1111	3.1701
			Mid	06426	.37173	.997	9416	.8131
	Games-Howell	Low	Mid	-2.20488(*)	.33132	.000	-2.9847	-1.4250
			High	-2.14063(*)	.37382	.000	-3.0222	-1.2590
		Mid	Low	2.20488(*)	.33132	.000	1.4250	2.9847
			High	.06426	.37903	.984	8287	.9572
		High	Low	2.14063(*)	.37382	.000	1.2590	3.0222
			Mid	06426	.37903	.984	9572	.8287
CnH	Bonferroni	Low	Mid	05977	.09477	1.000	2874	.1679
			High	07813	.10957	1.000	3413	.1851
		Mid	Low	.05977	.09477	1.000	1679	.2874
			High	01835	.09477	1.000	2460	.2093
		High	Low	.07813	.10957	1.000	1851	.3413
			Mid	.01835	.09477	1.000	2093	.2460
	Gabriel	Low	Mid	05977	.09477	.891	2834	.1639
			High	07813	.10957	.856	3406	.1843
		Mid	Low	.05977	.09477	.891	1639	.2834
		High	High Low	01835	.09477	.996	2420	.2053
		riigii		.07813	.10957	.856	1843	.3406
			Mid	.01835	.09477	.996	2053	.2420
	Games-Howell	Low	Mid	05977	.08339	.754	2562	.1366
			High	07813	.11149	.763	3411	.1849

					i			
		Mid	Low	.05977	.08339	.754	1366	.2562
			High	01835	.10595	.984	2684	.2317
		High	Low	.07813	.11149	.763	1849	.3411
Ratio Pth	Danfarrani	Low	Mid	.01835	.10595	.984	2317	.2684
ghts_to_T otal	Bonferroni	Low	Mid	23727(*)	.03840	.000	3295	1450
			High	25710(*)	.04440	.000	3637	1505
		Mid	Low	.23727(*)	.03840	.000	.1450	.3295
			High	01983	.03840	1.000	1121	.0724
		High	Low	.25710(*)	.04440	.000	.1505	.3637
			Mid	.01983	.03840	1.000	0724	.1121
	Gabriel	Low	Mid	23727(*)	.03840	.000	3279	1466
			High	25710(*)	.04440	.000	3634	1507
		Mid	Low	.23727(*)	.03840	.000	.1466	.3279
		High	High Low	01983 25710(*)	.03840	.936 .000	1105 .1507	.0708 .3634
		3.7	Mid	.25710(*) .01983	.03840	.936	0708	.1105
	Games-Howell	Low	Mid					
			High	23727(*) 25710(*)	.03793 .04387	.000	3267 3605	1479 1537
		Mid	Low	.23727(*)	.03793	.000	.1479	.3267
			High	01983	.03856	.864	1107	.0711
		High	Low	.25710(*)	.04387	.000	.1537	.3605
			Mid	.01983	.03856	.864	0711	.1107
Ratio_Hth hts_to_T tal	Bonferroni	Low	Mid	00896	.01475	1.000	0444	.0265
Jiai			High	00796	.01706	1.000	0489	.0330
		Mid	Low	.00896	.01475	1.000	0265	.0444
			High	.00099	.01475	1.000	0344	.0364
		High	Low	.00796	.01706	1.000	0330	.0489
			Mid	00099	.01475	1.000	0364	.0344
	Gabriel	Low	Mid	00896	.01475	.901	0438	.0259
			High	00796	.01706	.954	0488	.0329
		Mid	Low	.00896	.01475	.901	0259	.0438
		High	High Low	.00099	.01475	1.000	0338	.0358
		riigii		.00796	.01706	.954	0329	.0488
	Gamas Hawell	Low	Mid Mid	00099	.01475	1.000	0358	.0338
	Games-Howell	Low	Mid	00896	.01358	.787	0409	.0230
		Mid	High Low	00796 .00896	.01649 .01358	.879 .787	0469 0230	.0309 .0409
			High	.00099	.01554	.998	0356	.0376
		High	Low	.00796	.01649	.879	0309	.0469
		5	Mid	00099	.01554	.998	0309	.0356
CnP_vi	Bonferroni	Low	Mid	-2.06298(*)	.32689	.000	-2.8481	-1.2778
			High	-2.24219(*)	.37795	.000	-3.1500	-1.3344
		Mid	Low	2.06298(*)	.32689	.000	1.2778	2.8481
			High	17920	.32689	1.000	9644	.6060
		High	Low	2.24219(*)	.37795	.000	1.3344	3.1500
	Gabriel	Low	Mid Mid	.17920	.32689	1.000	6060	.9644
	Gabilei	Low	Mid	-2.06298(*)	.32689	.000	-2.8345	-1.2915
		N 41 -1	High	-2.24219(*)	.37795	.000	-3.1475	-1.3369
		Mid	Low High	2.06298(*) 17920	.32689 .32689	.000 .925	1.2915 9507	2.8345 .5923
		High	Low	2.24219(*)	.37795	.000	1.3369	3.1475

			Mid	.17920	.32689	.925	5923	.9507
	Games-Howell	Low	Mid		.27494	.000		
	Carriot Howell	2011		-2.06298(*)			-2.7100	-1.4160
		Mid	High Low	-2.24219(*)	.32944	.000	-3.0196	-1.4647
		IVIIU		2.06298(*)	.27494	.000	1.4160	2.7100
			High	17920	.34733	.864	9978	.6393
		High	Low	2.24219(*)	.32944	.000	1.4647	3.0196
	5		Mid	.17920	.34733	.864	6393	.9978
CnH_vi	Bonferroni	Low	Mid	02186	.07406	1.000	1998	.1560
			High	09375	.08563	.822	2994	.1119
		Mid	Low	.02186	.07406	1.000	1560	.1998
			High	07189	.07406	.997	2498	.1060
		High	Low	.09375	.08563	.822	1119	.2994
			Mid	.07189	.07406	.997	1060	.2498
	Gabriel	Low	Mid	02186	.07406	.987	1967	.1529
			High	09375	.08563	.617	2989	.1114
		Mid	Low	.02186	.07406	.987	1529	.1967
			High	07189	.07406	.692	2467	.1029
		High	Low	.09375	.08563	.617	1114	.2989
			Mid	.07189	.07406	.692	1029	.2467
	Games-Howell	Low	Mid	02186	.06283	.935	1698	.1261
			High	09375	.08602	.521	2968	.1093
		Mid	Low	.02186	.06283	.935	1261	.1698
			High	07189	.08401	.669	2701	.1264
		High	Low	.09375	.08602	.521	1093	.2968
			Mid	.07189	.08401	.669	1264	.2701
Tot_C	Bonferroni	Low	Mid	-1.26484(*)	.32737	.000	-2.0511	4785
_			High	-1.05469(*)	.37851	.017	-1.9638	1456
		Mid	Low	1.26484(*)	.32737	.000	.4785	2.0511
			High	.21015	.32737	1.000	5762	.9965
		High	Low	1.05469(*)	.37851	.017	.1456	1.9638
		i iigii	Mid	21015	.32737	1.000	9965	.5762
	Gabriel	Low	Mid	-1.26484(*)	.32737	.000	-2.0375	4922
			High	-1.05469(*)	.37851	.016	-1.9613	1480
		Mid	Low	1.26484(*)	.32737	.000	.4922	2.0375
		IVIIG	High	.21015	.32737	.886	5625	.9828
		High	Low	1.05469(*)	.37851	.016	.1480	1.9613
			Mid	21015	.32737	.886	9828	.5625
	Games-Howell	Low	Mid	-1.26484(*)	.30936	.000	-1.9934	5363
			High	-1.05469(*)	.33844	.006	-1.8526	2568
		Mid	Low	1.26484(*)	.30936	.000	.5363	1.9934
			High	.21015	.32249	.792	5495	.9698
		High	Low					
		riigii		1.05469(*)	.33844	.006	.2568	1.8526
VI_tot	Bonferroni	Low	Mid Mid	21015 -2.29748(*)	.32249 .35200	.792 .000	9698 -3.1429	.5495 -1.4520
VI_tot	Bornerrorn	LOW	High	-2.29746(°) -2.60156(*)	.40698	.000	-3.5791	-1.6240
		Mid	Low	. ,				
			High	2.29748(*)	.35200	.000	1.4520	3.1429
		1.15 - 1	_	30408	.35200	1.000	-1.1495	.5414
		High	Low Mid	2.60156(*)	.40698	.000	1.6240	3.5791
	Gabriel	Low	Mid	.30408	.35200	1.000	5414	1.1495
	Gabriel	LUW		-2.29748(*)	.35200	.000	-3.1282	-1.4667
			High	-2.60156(*)	.40698	.000	-3.5764	-1.6267
			1 0144	2.29748(*)	.35200	.000	1.4667	3.1282
		Mid	Low					
		Mid High	High Low	30408 2.60156(*)	.35200	.762 .000	-1.1348 1.6267	.5267 3.5764

Games-Howell   Low   Mid   -2.29748(*)   3.4915   .000   -3.1204   -1.4746   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .16685   .1688									
High				Mid	.30408	.35200	.762	5267	1.1348
Mid		Games-Howell	Low	Mid	-2.29748(*)	.34915	.000	-3.1204	-1.4746
High   Low   2.60156(*)   3.9878   .000   1.6685   3.5346     Cb   Bonferroni   Low   Mid   .16600   .12901   .596   .4759   .1439     High   Low   .17969   .14916   .687   .4759   .1439     High   Low   .17969   .14916   .687   .4759   .1439     High   Low   .17969   .14916   .687   .5380   .1786     High   Low   .17969   .14916   .687   .5380   .1786     High   Low   .17969   .14916   .687   .5380   .1786     Mid   .01369   .12901   .1000   .2962   .3236   .2962     Gabriel   Low   Mid   .16600   .12901   .472   .1385   .4705     High   Low   .16600   .12901   .472   .1385   .4705     High   Low   .17969   .14916   .541   .1776   .5370     Mid   Low   .16600   .12901   .472   .4705   .1385     High   Low   .17969   .14916   .541   .5370   .1776     Mid   Low   .17969   .14916   .541   .5370   .1776     Mid   .01369   .12901   .999   .2908   .3182   .2908     Games-Howell   Low   Mid   .16600   .14326   .479   .1722   .5042     High   Low   .17969   .15746   .490   .1917   .5510     Mid   .01369   .11857   .993   .22658   .2932     High   Low   .17969   .15746   .490   .5510   .1917     Mid   .01369   .11857   .993   .22658   .2932     Cad   Bonferroni   Low   Mid   .64474(*)   .20935   .007   .1419   .11476     High   Low   .81250(*)   .24205   .003   .2311   .13939     Mid   Low   .81250(*)   .24205   .003   .3351   .6706     High   Low   .81250(*)   .24205   .003   .3351   .6706     Gabriel   Low   Mid   .64474(*)   .20935   .006   .1507   .11388     High   Low   .81250(*)   .24205   .003   .3351   .6706   .3351     Gabriel   Low   Mid   .64474(*)   .20935   .006   .1507   .11388     High   .16776   .20935   .006   .1507   .11388     High   .81250(*)   .24205   .003   .2327   .13923				0	-2.60156(*)	.39578	.000	-3.5346	-1.6685
High   Low   2.60156(*)   39578   .000   1.6685   3.5346     Mid   .30408   .34831   .658   .5168   1.1250     High   .17969   .14916   .687   .1786   .5380     High   Low   .17969   .14916   .687   .4759   .1439     High   Low   .17969   .14916   .687   .4759   .1439     High   Low   .17969   .14916   .687   .4759   .1439     High   Low   .17969   .14916   .687   .5380   .1786     Mid   Low   .17969   .14916   .687   .5380   .1786     Mid   .01369   .12901   1.000   .22962   .3236     Gabriel   Low   Mid   .16600   .12901   .472   .1385   .4705     High   .17969   .14916   .541   .1776   .5370     Mid   Low   .16600   .12901   .472   .4705   .1385     High   Low   .17969   .14916   .541   .5370   .1776     Mid   .01369   .12901   .999   .2908   .3182     High   Low   .17969   .14916   .541   .5370   .1776     Mid   .01369   .12901   .999   .3182   .2908     Games-Howell   Low   Mid   .16600   .14326   .479   .1722   .5042     High   .17969   .15746   .490   .1917   .5510     Mid   Low   .16600   .14326   .479   .5042   .1722     High   Low   .17969   .15746   .490   .5510   .1917     Mid   Low   .17969   .15746   .490   .5510   .1917     Mid   .01369   .11857   .993   .2932   .2658     Cad   Bonferroni   Low   Mid   .64474(*)   .20935   .007   .1419   .1476     High   .16776   .20935   .007   .1419   .1476     High   Low   .64474(*)   .20935   .007   .1419   .1476     High   Low   .81250(*)   .24205   .003   .3351   .6706     High   Low   .16776   .20935   .000   .13939   .2311     Mid   .16776   .20935   .000   .1507   .1388     High   Low   .16776   .20935   .006   .1507   .1388     Gabriel   Low   Mid   .64474(*)   .20935   .006   .1507   .1388     High   .16776   .20935   .006   .1507   .1388     High   .16776   .20935   .006   .1507   .1388     High   .16776   .20935   .006   .1507   .1388     High   .81250(*)   .24205   .003   .2327   .13923			Mid	Low	2.29748(*)	.34915	.000	1.4746	3.1204
Mid				High	30408	.34831	.658	-1.1250	.5168
Cb			High	Low	2.60156(*)	.39578	.000	1.6685	3.5346
High									
Mid   Low	Cb	Bonferroni	Low						
High				-					
High			Mid		16600	.12901	.596	4759	.1439
Mid				ŭ					
Gabriel Low Mid 1.6600 1.12901 4.72 -1.385 4.705   High 1.7769 1.14916 5.41 -1.776 5.370   Mid Low -1.6600 1.2901 4.72 -4.705 1.385   High 0.01369 1.12901 9.99 -2.908 3.182   High 1.00 -1.7969 1.14916 5.41 -5.370 1.776   Mid -0.01369 1.12901 9.99 -3.3182 2.908   Games-Howell Low Mid 1.6600 1.4326 4.79 -1.722 5.042   High 1.7969 1.15746 4.90 -1.1917 5.510   Mid Low -1.6600 1.14326 4.79 -5.5042 1.722   High 0.01369 1.1857 9.93 -2.658 2.932   High Low -1.7969 1.15746 4.90 -5.510 1.917   Mid -0.1369 1.1857 9.93 -2.2658 2.932   High Low -1.7969 1.15746 4.90 -5.510 1.917   Mid -0.1369 1.1857 9.93 -2.2658 2.932   High Low -1.7969 1.15746 4.90 -5.510 1.917   Mid -0.1369 1.1857 9.93 -2.232 2.658   Mid Low -6.4474(*) 2.0935 0.007 1.1419 1.1476   High 8.1250(*) 2.24205 0.003 2.311 1.3939   Mid Low -6.4474(*) 2.0935 1.000 -3.351 6.706   High Low -8.1250(*) 2.4205 0.003 -1.3939 -2.311   Mid -1.6776 2.0935 1.000 -3.351 6.706   Mid -6.4474(*) 2.0935 0.006 1.1507 1.1388   High Righ 8.1250(*) 2.24205 0.003 2.327 1.3923   Mid Low Mid 6.4474(*) 2.0935 0.006 1.1507 1.1388   High Righ 8.1250(*) 2.24205 0.003 2.3327 1.3923   Mid Low Mid 6.4474(*) 2.0935 0.006 1.1507 1.1388   High Righ 8.1250(*) 2.24205 0.003 2.3327 1.3923   Mid Righ Righ 8.1250(*) 2.24205 0.003 2.3327 1.3923   Mid Righ Righ 8.1250(*) 2.24205 0.003 2.3327 1.3923   Mid Righ Righ Righ 8.1250(*) 2.24205 0.003 1.3939 1.3923   Mid Righ Righ Righ 8.1250(*) 2.24205 0.003 1.3939 1.3923   Mid Righ Righ Righ Righ Righ Righ Righ Righ			High						
High					01369	.12901	1.000	3236	.2962
Mid Low High 1.01369 1.12901 4.724705 1.385		Gabriel	Low		.16600	.12901	.472	1385	.4705
High   Low   -17969   .12901   .999  2908   .3182   .1776   .17969   .14916   .541   .5370   .1776   .1776   .17969   .14916   .541   .5370   .1776   .1776   .17969   .14916   .541   .5370   .1776   .1776   .17969   .12901   .999  3182   .2908   .2908   .12901   .12901   .1722   .5042   .1722   .5042   .17969   .15746   .490  1917   .5510   .1917   .185				High	.17969	.14916	.541	1776	.5370
High   Low  17969   .14916   .541  5370   .1776   Mid  01369   .12901   .999  3182   .2908   .29			Mid						
Mid  01369   .12901   .999  3182   .2908     .3197   .2017   .2017   .2018   .			High						
Games-Howell Low Mid			9						
High Low17969 .15746 .4901917 .5510  Mid Low16600 .14326 .4795042 .1722  High .01369 .11857 .9932658 .2932  High Low17969 .15746 .4905510 .1917  Mid01369 .11857 .9932932 .2658  Cad Bonferroni Low Mid .64474(*) .20935 .007 .1419 1.1476  High .81250(*) .24205 .003 .2311 1.3939  Mid Low64474(*) .20935 .007 -1.14761419  High .16776 .20935 .10003351 .6706  High Low81250(*) .24205 .003 -1.39392311  Mid Low16776 .20935 .10006706 .3351  Gabriel Low Mid .64474(*) .20935 .006 .1507 1.1388  High .81250(*) .24205 .003 .2327 1.3923		Compo Howell	Low						
Mid Low16600 .14326 .4795042 .1722 High .01369 .11857 .9932658 .2932 High Low17969 .15746 .4905510 .1917 Mid01369 .11857 .9932932 .2658 Cad Bonferroni Low Mid .64474(*) .20935 .007 .1419 1.1476 High .81250(*) .24205 .003 .2311 1.3939 Mid Low64474(*) .20935 .007 -1.14761419 High .16776 .20935 1.0003351 .6706 High Low81250(*) .24205 .003 -1.39392311 Mid16776 .20935 1.0006706 .3351 Gabriel Low Mid .64474(*) .20935 .006 .1507 1.1388 High .81250(*) .24205 .003 .2327 1.3923		Games-Howell	LOW						
High			Mid						
High Low17969 .15746 .4905510 .1917  Mid01369 .11857 .9932932 .2658  Cad Bonferroni Low Mid .64474(*) .20935 .007 .1419 1.1476  High .81250(*) .24205 .003 .2311 1.3939  Mid Low64474(*) .20935 .007 -1.14761419  High .16776 .20935 1.0003351 .6706  High Low81250(*) .24205 .003 -1.39392311  Mid16776 .20935 1.0006706 .3351  Gabriel Low Mid .64474(*) .20935 .006 .1507 1.1388  High .81250(*) .24205 .003 .2327 1.3923			IVIIG						
Cad         Bonferroni         Low         Mid Mid High        01369 .64474(*)         .11857 .20935         .093 .007        2932 .1419         .2658 .1419           Mid         Low         .64474(*)         .20935         .007         .1419         1.1476           High         Low        64474(*)         .20935         .007         -1.1476        1419           High         Low        81250(*)         .24205         .003         -1.3939        2311           Mid        81250(*)         .24205         .003         -1.3939        2311           Gabriel         Low         Mid         .64474(*)         .20935         1.000        6706         .3351           High         .64474(*)         .20935         1.000        6706         .3351           Mid         .64474(*)         .20935         .006         .1507         1.1388           High         .81250(*)         .24205         .003         .2327         1.3923			∐iah	ŭ					
Cad         Bonferroni         Low         Mid High         .64474(*)         .20935         .007         .1419         1.1476           Mid         Low        64474(*)         .24205         .003         .2311         1.3939           Mid         Low        64474(*)         .20935         .007         -1.1476        1419           High         Low        64476(*)         .20935         1.000        3351         .6706           High         Low        81250(*)         .24205         .003         -1.3939        2311           Gabriel         Low         Mid         .64474(*)         .20935         1.000        6706         .3351           High         .64474(*)         .20935         .006         .1507         1.1388           High         .81250(*)         .24205         .003         .2327         1.3923			піgп						
High Low High Low64474(*) .20935 .003 .2311 1.3939  High Low64474(*) .20935 .007 -1.14761419  High Low High Low81250(*) .24205 .003 -1.39392311  Gabriel Low Mid .64474(*) .20935 1.0006706 .3351  Gabriel Low Mid .64474(*) .20935 .006 .1507 1.1388  High .81250(*) .24205 .003 .2327 1.3923	Cad	Ronferroni	Low						
Mid         Low        64474(*)         .20935         .007         -1.1476        1419           High         .16776         .20935         1.000        3351         .6706           High         Low        81250(*)         .24205         .003         -1.3939        2311           Mid        16776         .20935         1.000        6706         .3351           Gabriel         Low         Mid         .64474(*)         .20935         .006         .1507         1.1388           High         .81250(*)         .24205         .003         .2327         1.3923	Odd	Bomerrom	LOW						
High Low Mid .16776 .20935 1.0003351 .6706  High Low Mid16776 .20935 1.0003351 .2311  Gabriel Low Mid .64474(*) .20935 .006 .1507 1.1388  High .81250(*) .24205 .003 .2327 1.3923			Mid	Low	` ′				
High Low Mid .64474(*) .20935 .003 .2327 1.3929  High Low Mid .81250(*) .24205 .003 -1.39392311  Gabriel Low Mid .64474(*) .20935 .006 .1507 1.1388  High .81250(*) .24205 .003 .2327 1.3923				High	` ′				
Mid        16776         .20935         1.000        6706         .3351           Gabriel         Low         Mid         .64474(*)         .20935         .006         .1507         1.1388           High         .81250(*)         .24205         .003         .2327         1.3923			High	Low					
Gabriel Low Mid .64474(*) .20935 .006 .1507 1.1388 High .81250(*) .24205 .003 .2327 1.3923									
High .81250(*) .24205 .003 .2327 1.3923		Gabriel	Low	Mid			.006	.1507	
.51256() .21255 .555 .2521 1.5525				High	` ′				
			Mid	Low	64474(*)	.20935	.006	-1.1388	1507
High .16776 .20935 .8013263 .6618				High					
High Low81250(*) .24205 .003 -1.39232327			High	Low	81250(*)	.24205	.003	-1.3923	2327
Mid16776 .20935 .8016618 .3263				Mid	16776	.20935	.801	6618	.3263
Games-Howell Low Mid .64474(*) .22733 .014 .1085 1.1810		Games-Howell	Low	Mid	.64474(*)	.22733	.014	.1085	1.1810
High .81250(*) .24119 .003 .2436 1.3814				0		.24119	.003	.2436	1.3814
Mid Low64474(*) .22733 .014 -1.18101085			Mid	Low	64474(*)	.22733	.014	-1.1810	1085
High .16776 .18911 .6492777 .6132				High	.16776	.18911	.649	2777	.6132
High Low81250(*) .24119 .003 -1.38142436			High	Low	81250(*)	.24119	.003	-1.3814	2436
Mid16776 .18911 .6496132 .2777				Mid	- 16776	.18911	.649	6132	.2777

Mid |
\* The mean difference is significant at the .05 level.

# Appendix S

# RQ2a

**Test of Homogeneity of Variances** 

	Levene Statistic	df1	df2	Sig.
E_Neg_Irr	.127	2	511	.881
E_Up_Elat	5.007	2	511	.007
E_Ser_Calm	1.591	2	511	.205
E_Wrm_Tend	1.457	2	511	.234
E_Uninvlvd	5.927	2	511	.003
E_Powles_Regrt	2.403	2	511	.091

ANOVA

		Cum of				
		Sum of Squares	df	Mean Square	F	Sig.
E_Neg_Irr	Between Groups	2.285	2	1.142	1.606	.202
	Within Groups	363.486	511	.711		
	Total	365.771	513			
E_Up_Elat	Between Groups	107.410	2	53.705	38.211	.000
	Within Groups	718.214	511	1.406		
	Total	825.625	513			
E_Ser_Calm	Between Groups	50.991	2	25.495	28.368	.000
	Within Groups	459.251	511	.899		
	Total	510.242	513			
E_Wrm_Tend	Between Groups	46.939	2	23.469	17.383	.000
	Within Groups	689.925	511	1.350		
	Total	736.864	513			
E_Uninvlvd	Between Groups	19.718	2	9.859	6.234	.002
	Within Groups	808.128	511	1.581		
	Total	827.846	513			
E_Powles_Regrt	Between Groups	1.404	2	.702	.378	.685
	Within Groups	948.822	511	1.857		
	Total	950.226	513			

**Robust Tests of Equality of Means** 

		Statistic(a)	df1	df2	Sig.
E_Neg_Irr	Welch	1.572	2	269.401	.209
E_Up_Elat	Welch	35.403	2	255.520	.000
E_Ser_Calm	Welch	24.943	2	254.885	.000
E_Wrm_Tend	Welch	15.403	2	256.134	.000
E_Uninvlvd	Welch	5.217	2	248.996	.006
E_Powles_Regrt	Welch	.361	2	264.712	.697

a Asymptotically F distributed.

**Multiple Comparisons** 

Depende		(I) Nost Reactio	(J) Nost Reactio	Mean			95% Con Inter	
nt Variable		n Group 3way	n Group 3way	Difference (I-J)	Std. Error	Sig.	Lower	Upper
E_NegIrr	Bonferroni	Low	Mid High	.07735 .18750	.09118 .10543	1.000 .228	1417 0657	.2964 .4407

		Mid	Low	07735	.09118	1.000	2964	.141
			High	.11015	.09118	.683	1089	.329
		High	Low	18750	.10543	.228	4407	.065
			Mid	11015	.09118	.683	3292	.108
	Gabriel	Low	Mid	.07735	.09118	.772	1378	.2926
			High	.18750	.10543	.211	0650	.4400
		Mid	Low	07735	.09118	.772	2926	.1378
		High	High Low	.11015	.09118	.526	1051	.325
		nigii		18750	.10543	.211	4400	.0650
			Mid	11015	.09118	.526	3253	.105
	Games-Howell	Low	Mid	.07735	.09030	.668	1355	.2902
		Mid	High Low	.18750	.10613	.183	0627	.4377
		IVIIG		07735	.09030	.668	2902	.135
			High	.11015	.09247	.460	1079	.3282
		High	Low	18750	.10613	.183	4377	.0627
E UpElat	Bonferroni	Low	Mid Mid	11015 90124(*)	.09247 .12817	.460 .000	3282 -1.2091	.1079 5934
орыат	Domerrom	LOW	High	-1.23047(*)	.14819	.000	-1.5864	874
		Mid	Low	.90124(*)	.12817	.000	.5934	1.209
			High	32923(*)	.12817	.031	6371	0214
		High	Low	1.23047(*)	.14819	.000	.8745	1.5864
		9	Mid	.32923(*)	.12817	.031	.0214	.6371
	Gabriel	Low	Mid	90124(*)	.12817	.000	-1.2037	5987
			High	-1.23047(*)	.14819	.000	-1.5854	8755
		Mid	Low	.90124(*)	.12817	.000	.5987	1.2037
			High	32923(*)	.12817	.028	6317	0267
		High	Low	1.23047(*)	.14819	.000	.8755	1.5854
			Mid	.32923(*)	.12817	.028	.0267	.6317
	Games-Howell	Low	Mid	90124(*)	.12693	.000	-1.2006	6018
			High	-1.23047(*)	.15840	.000	-1.6039	8570
		Mid	Low	.90124(*)	.12693	.000	.6018	1.2006
			High	32923(*)	.13543	.042	6488	0096
		High	Low	1.23047(*)	.15840	.000	.8570	1.6039
F 00-1	D f :	1	Mid	.32923(*)	.13543 .10249	.042	.0096	.6488
E_SerCal	Bonferroni	Low	Mid High	44233(*) 89258(*)	.10249	.000	6885 -1.1772	1962 6080
		Mid	Low	.44233(*)	.10249	.000	.1962	
			High					.6885
		High	Low	45025(*) .89258(*)	.10249 .11850	.000	6964 .6080	2041 1.1772
		riigii	Mid	.45025(*)	.10249	.000	.2041	.6964
	Gabriel	Low	Mid	44233(*)	.10249	.000	6842	2004
			High	89258(*)	.11850	.000	-1.1764	6087
		Mid	Low	.44233(*)	.10249	.000	.2004	.6842
			High	45025(*)	.10249	.000	6921	2084
		High	Low	.89258(*)	.11850	.000	.6087	1.1764
			Mid	.45025(*)	.10249	.000	.2084	.6921
	Games-Howell	Low	Mid	44233(*)	.11148	.000	7055	1792
			High	89258(*)	.12737	.000	-1.1929	5922
		Mid	Low	.44233(*)	.11148	.000	.1792	.705
			High	45025(*)	.09845	.000	6824	2181
		High	Low	.89258(*)	.12737	.000	.5922	1.1929
			Mid	.45025(*)	.09845	.000	.2181	.6824
EWrmTe	Bonferroni	Low	Mid High	54205(*)	.12562	.000	8438	2403
			riigii	83854(*)	.14524	.000	-1.1874	4897

		Mid	Low	.54205(*)	.12562	.000	.2403	.8438
			High	29649	.12562	.056	5982	.0052
		High	Low	.83854(*)	.14524	.000	.4897	1.1874
			Mid	.29649	.12562	.056	0052	.5982
	Gabriel	Low	Mid	54205(*)	.12562	.000	8385	2456
			High	83854(*)	.14524	.000	-1.1864	4906
		Mid	Low	.54205(*)	.12562	.000	.2456	.8385
			High	29649(*)	.12562	.050	5930	.0000
		High	Low	.83854(*)	.14524	.000	.4906	1.1864
			Mid	.29649(*)	.12562	.050	.0000	.5930
	Games-Howell	Low	Mid	54205(*)	.12814	.000	8444	2397
			High	83854(*)	.15469	.000	-1.2032	4739
		Mid	Low	.54205(*)	.12814	.000	.2397	.8444
			High	29649	.12878	.058	6003	.0074
		High	Low	.83854(*)	.15469	.000	.4739	1.2032
			Mid	.29649	.12878	.058	0074	.6003
E_Uninvl	Bonferroni	Low	Mid	.26290	.13596	.161	0637	.5895
			High	.55469(*)	.15720	.001	.1771	.9323
		Mid	Low	26290	.13596	.161	5895	.0637
			High	.29179	.13596	.097	0348	.6183
		High	Low	55469(*)	.15720	.001	9323	1771
			Mid	29179	.13596	.097	6183	.0348
	Gabriel	Low	Mid	.26290	.13596	.143	0580	.5838
			High	.55469(*)	.15720	.001	.1782	.9312
		Mid	Low	26290	.13596	.143	5838	.0580
		High	High Low	.29179	.13596	.087	0291	.6127
		riigii	Mid	55469(*)	.15720	.001	9312	1782
	0	1		29179	.13596	.087	6127	.0291
	Games-Howell	Low	Mid	.26290	.14428	.165	0777	.6035
		Mid	High	.55469(*)	.17229	.004	.1485	.9609
		IVIIU	Low	26290	.14428	.165	6035	.0777
			High	.29179	.13670	.085	0308	.6144
		High	Low	55469(*)	.17229	.004	9609	1485
E D	D f :	1	Mid	29179	.13670	.085	6144	.0308
E_Powles _Regrt	Bonferroni	Low	Mid	07573	.14732	1.000	4296	.2781
			High	.04688	.17033	1.000	3622	.4560
		Mid	Low	.07573	.14732	1.000	2781	.4296
			High	.12261	.14732	1.000	2312	.4765
		High	Low	04688	.17033	1.000	4560	.3622
		J	Mid	12261	.14732	1.000	4765	.2312
	Gabriel	Low	Mid	07573	.14732	.937	4234	.2720
			High	.04688	.17033	.990	3611	.4549
		Mid	Low	.07573	.14732	.937	2720	.4234
			High	.12261	.14732	.782	2251	.4703
		High	Low	04688	.17033	.990	4549	.3611
			Mid	12261	.14732	.782	4703	.2251
	Games-Howell	Low	Mid	07573	.14364	.858	4144	.2629
			High	.04688	.17527	.961	3664	.4601
		Mid	Low	.07573	.14364	.858	2629	.4144
			High	.12261	.15377	.705	2401	.4853
		High	Low	04688	.17527	.961	4601	.3664
		-	Mid	12261	.15377	.705	4853	.2401

<sup>\*</sup> The mean difference is significant at the .05 level.

# **Appendix T** RQ2a EFA (no suppression)

## Rotated Component Matrix(a)

		,	Comp	onent		1
	1	2	3	4	5	6
E8_53_Angry	.818	.008	088	018	.082	045
E50_50_Annoyed	.812	.012	050	088	.237	.089
E21_21_Disgusted	.755	.075	052	199	.158	.208
E45_37_Mad	.738	.063	022	112	.054	.272
E17_17_Excited	.007	.816	.076	.104	128	.107
E18_49_Active	.127	.800	.150	071	.137	.115
E12_12_Playful	.045	.756	.115	.133	.150	019
E20_20_Entertained	029	.721	.114	.105	230	.010
E53_2_Peaceful	118	.196	.753	.079	067	015
E25_25_Restful	.039	.164	.715	038	.296	.018
E49_8_Calm	263	.001	.692	.241	058	.036
E30_4_Serene	.081	.103	.649	.194	174	.096
E3_41_Sentimental	153	.033	.092	.797	110	119
E54_54_Reflective	169	.076	.161	.692	278	031
E7_40_Innocent	035	.209	.198	.657	.270	.081
E26_26_Uninformed	.201	.087	.009	155	.764	.106
E48_43_Uninvolved	.255	177	067	.027	.713	.151
E44_23_Powerless	.102	.058	.111	071	.140	.825
E13_13_Helpless	.260	.110	003	.005	.086	.787

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.

# Appendix U RQ3a and RQ4a

### **Test of Homogeneity of Variances**

	Levene Statistic	df1	df2	Sig.
Aad Mean	7.452	2	511	.001
Ab Mean	.246	2	511	.782
lb Mean	1.447	2	511	.236

#### **ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
Aad Mean	Between Groups	135.079	2	67.539	36.841	.000
	Within Groups	936.792	511	1.833		
	Total	1071.871	513			
Ab Mean	Between Groups	82.267	2	41.134	26.536	.000
	Within Groups	792.098	511	1.550		
	Total	874.365	513			
lb Mean	Between Groups	149.805	2	74.903	24.910	.000
	Within Groups	1536.555	511	3.007		
	Total	1686.360	513			

### **Robust Tests of Equality of Means**

		Statistic(a)	df1	df2	Sig.
Aad Mean	Welch	30.232	2	253.060	.000
Ab Mean	Welch	24.936	2	264.294	.000
Ib Mean	Welch	22.618	2	260.331	.000

a Asymptotically F distributed.

### **Multiple Comparisons**

Depende	nde Reactio Reactio		(J) Nost Reactio	Mean			95% Confidence Interval	
nt Variable		n Group 3way	n Group 3way	Difference (I-J)	Std. Error	Sig.	Lower	Upper
Aad Mean	Bonferroni	Low	Mid	93213(*)	.14638	.000	-1.2837	5805
			High	-1.41797(*)	.16925	.000	-1.8245	-1.0115
		Mid	Low	.93213(*)	.14638	.000	.5805	1.2837
			High	48584(*)	.14638	.003	8374	1342
		High	Low	1.41797(*)	.16925	.000	1.0115	1.8245
			Mid	.48584(*)	.14638	.003	.1342	.8374
	Gabriel	Low	Mid	93213(*)	.14638	.000	-1.2776	5866
			High	-1.41797(*)	.16925	.000	-1.8234	-1.0126
•			<u>'</u>	- 270 -	'	<u>'</u>	'	•

		Mid	Low High	.93213(*) 48584(*)	.14638 .14638	.000 .002	.5866 8313	1.2776 1404
		High	Low	1.41797(*)	.16925	.000	1.0126	1.8234
			Mid	.48584(*)	.14638	.002	.1404	.8313
	Games-Howell	Low	Mid	93213(*)	.15982	.000	-1.3094	5548
			High	-1.41797(*)	.18325	.000	-1.8501	9859
		Mid	Low	.93213(*)	.15982	.000	.5548	1.3094
			High	48584(*)	.14082	.002	8180	1537
		High	Low	1.41797(*)	.18325	.000	.9859	1.8501
			Mid	.48584(*)	.14082	.002	.1537	.8180
Ab Mean	Bonferroni	Low	Mid	53361(*)	.13460	.000	8569	2103
			High	-1.13281(*)	.15563	.000	-1.5066	7590
		Mid	Low	.53361(*)	.13460	.000	.2103	.8569
			High	59920(*)	.13460	.000	9225	2759
		High	Low	1.13281(*)	.15563	.000	.7590	1.5066
			Mid	.59920(*)	.13460	.000	.2759	.9225
	Gabriel	Low	Mid	53361(*)	.13460	.000	8513	2159
			High	-1.13281(*)	.15563	.000	-1.5056	7600
		Mid	Low	.53361(*)	.13460	.000	.2159	.8513
		High	High Low	59920(*)	.13460	.000	9169	2815
		riigii		1.13281(*)	.15563	.000	.7600	1.5056
			Mid	.59920(*)	.13460	.000	.2815	.9169
	Games-Howell	Low	Mid	53361(*)	.13452	.000	8508	2164
		N 4: -I	High	-1.13281(*)	.16024	.000	-1.5106	7550
		Mid	Low	.53361(*)	.13452	.000	.2164	.8508
			High	59920(*)	.13741	.000	9233	2751
		High	Low	1.13281(*)	.16024	.000	.7550	1.5106
	D ( '		Mid	.59920(*)	.13741	.000	.2751	.9233
Ib Mean	Bonferroni	Low	Mid High	80868(*)	.18747	.000	-1.2590	3584
		Mid	Low	-1.52865(*)	.21676	.000	-2.0493	-1.0080
		IVIIU		.80868(*)	.18747	.000	.3584	1.2590
			High	71996(*)	.18747	.000	-1.1703	2697
		High	Low Mid	1.52865(*)	.21676	.000	1.0080	2.0493
	0 - 1 1	1		.71996(*)	.18747	.000	.2697	1.1703
	Gabriel	Low	Mid	80868(*)	.18747	.000	-1.2511	3662
			High	-1.52865(*)	.21676	.000	-2.0478	-1.0094
		Mid	Low	.80868(*)	.18747	.000	.3662	1.2511
		High	High Low	71996(*)	.18747	.000	-1.1624	2775
		J	Mid	1.52865(*) .71996(*)	.21676 .18747	.000	1.0094	2.0478 1.1624
	Games-Howell	Low	Mid			.000	.2775	3517
			High	80868(*) -1.52865(*)	.19373 .22700	.000	-1.2657 -2.0638	351 <i>7</i> 9935
		Mid	Low	.80868(*)	.19373	.000	-2.0638 .3517	1.2657
			High	71996(*)	.18729	.000	-1.1617	2782
		High	Low	1.52865(*)	.22700	.000	.9935	2.0638
			Mid	.71996(*)	.18729	.000	.2782	1.1617
				` '		•		

<sup>\*</sup> The mean difference is significant at the .05 level.

# Appendix V RQ1b

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
CnP	2.694	2	289	.069
CnH	3.960	2	289	.020
Ratio_Pthghts_to_Total	1.760	2	289	.174
Ratio_Hthghts_to_Total	2.014	2	289	.135
CnP_vi	.388	2	289	.679
CnH_vi	2.734	2	289	.067
Tot_C	.998	2	289	.370
VI_tot	1.099	2	289	.334
Cb	.952	2	289	.387
Cad	.028	2	289	.972

ANOVA

		Sum of		Mean		0.
<u> </u>	D. ( )	Squares	df	Square	F	Sig.
CnP	Between Groups	3.353	2	1.676	.849	.429
	Within Groups	570.767	289	1.975		
	Total	574.120	291			
CnH	Between Groups	95.024	2	47.512	10.797	.000
	Within Groups	1271.753	289	4.401		
	Total	1366.777	291			
Ratio_Pthghts_to_Total	Between Groups	.043	2	.022	.603	.548
	Within Groups	10.399	289	.036		
	Total	10.442	291			
Ratio_Hthghts_to_Total	Between Groups	1.754	2	.877	12.020	.000
	Within Groups	21.083	289	.073		
	Total	22.837	291			
CnP_vi	Between Groups	.219	2	.110	.089	.915
	Within Groups	355.671	289	1.231		
	Total	355.890	291			
CnH_vi	Between Groups	35.106	2	17.553	6.727	.001
	Within Groups	754.137	289	2.609		
	Total	789.243	291			
Tot_C	Between Groups	8.568	2	4.284	.574	.564
	Within Groups	2156.774	289	7.463		
	Total	2165.342	291			
VI_tot	Between Groups	139.051	2	69.526	7.726	.001
	Within Groups	2600.685	289	8.999		
	Total	2739.736	291			
Cb	Between Groups	4.240	2	2.120	1.356	.259
	Within Groups	451.705	289	1.563		
	Total .	455.945	291			
Cad	Between Groups	29.346	2	14.673	3.182	.043
	Within Groups	1332.747	289	4.612		
	Total	1362.092	291			
		- 272 -				

## **Robust Tests of Equality of Means**

		Statistic(a)	df1	df2	Sig.
CnP	Welch	.632	2	150.479	.533
CnH	Welch	14.460	2	160.156	.000
Ratio_Pthghts_to_Total	Welch	.593	2	144.108	.554
Ratio_Hthghts_to_Total	Welch	14.034	2	161.229	.000
CnP_vi	Welch	.089	2	156.311	.915
CnH_vi	Welch	7.726	2	158.011	.001
Tot_C	Welch	.605	2	153.801	.548
VI_tot	Welch	6.940	2	148.628	.001
Cb	Welch	1.552	2	162.028	.215
Cad	Welch	3.223	2	154.135	.043

a Asymptotically F distributed.

# **Multiple Comparisons**

Depende		(I) Nost Reactio	(J) Nost Reactio	Mean			95% Con Inter	
nt Variable		n Group 3way	n Group 3way	Difference (I-J)	Std. Error	Sig.	Lower	Upper
CnP	Bonferroni	Low	Mid	.26027	.20145	.592	2248	.7454
			High	.20548	.23261	1.000	3547	.7656
		Mid	Low	26027	.20145	.592	7454	.2248
			High	05479	.20145	1.000	5399	.4303
		High	Low	20548	.23261	1.000	7656	.3547
			Mid	.05479	.20145	1.000	4303	.5399
	Gabriel	Low	Mid	.26027	.20145	.470	2165	.7370
			High	.20548	.23261	.758	3531	.7640
		Mid	Low	26027	.20145	.470	7370	.2165
		High	High Low	05479	.20145	.990	5315	.4220
		nigii	-	20548	.23261	.758	7640	.3531
			Mid	.05479	.20145	.990	4220	.5315
	Games-Howell	Low	Mid	.26027	.23108	.500	2884	.8089
			High	.20548	.24377	.677	3727	.7837
		Mid	Low	26027	.23108	.500	8089	.2884
			High	05479	.17447	.947	4675	.3579
		High	Low	20548	.24377	.677	7837	.3727
			Mid	.05479	.17447	.947	3579	.4675
CnH	Bonferroni	Low	Mid	-1.09589(*)	.30070	.001	-1.8200	3718
			High	-1.54795(*)	.34722	.000	-2.3841	7118
		Mid	Low	1.09589(*)	.30070	.001	.3718	1.8200
			High	45205	.30070	.402	-1.1761	.2720
		High	Low	1.54795(*)	.34722	.000	.7118	2.3841
			Mid	.45205	.30070	.402	2720	1.1761
	Gabriel	Low	Mid	-1.09589(*)	.30070	.001	-1.8075	3842
			High	-1.54795(*)	.34722	.000	-2.3817	7142
		Mid	Low	1.09589(*)	.30070	.001	.3842	1.8075
		High	High Low	45205	.30070	.337	-1.1637	.2596
		riigii		1.54795(*)	.34722	.000	.7142	2.3817
			Mid	.45205	.30070	.337	2596	1.1637
	Games-Howell	Low	Mid	-1.09589(*)	.25524	.000	-1.6988	4930
l			High	-1.54795(*)	.33263	.000	-2.3371	7588

ī					i i		İ	
		Mid	Low	1.09589(*)	.25524	.000	.4930	1.6988
			High	45205	.33272	.366	-1.2407	.3366
		High	Low	1.54795(*)	.33263	.000	.7588	2.3371
Datia Dth	Bonferroni	Low	Mid Mid	.45205	.33272	.366	3366	1.2407
Ratio_Pth ghts_to_T otal	Bonierroni	Low	IVIIQ	.02609	.02719	1.000	0394	.0916
			High	.00371	.03140	1.000	0719	.0793
		Mid	Low	02609	.02719	1.000	0916	.0394
			High	02238	.02719	1.000	0879	.0431
		High	Low	00371	.03140	1.000	0793	.0719
			Mid	.02238	.02719	1.000	0431	.0879
	Gabriel	Low	Mid	.02609	.02719	.700	0383	.0904
			High	.00371	.03140	.999	0717	.0791
		Mid	Low	02609	.02719	.700	0904	.0383
		High	High Low	02238	.02719	.788	0867	.0420
		riigii		00371	.03140	.999	0791	.0717
	0	1	Mid	.02238	.02719	.788	0420	.0867
	Games-Howell	Low	Mid	.02609	.02935	.648	0436	.0957
		Mid	High Low	.00371	.03384	.993	0764	.0839
		IVIIG		02609	.02935	.648	0957	.0436
			High	02238	.02641	.674	0850	.0402
		High	Low	00371	.03384	.993	0839	.0764
Ratio Hth	Bonferroni	Low	Mid Mid	.02238	.02641	.674	0402	.0850
ghts_to_T otal	Domerrom	LOW	IVIIQ	15771(*)	.03872	.000	2509	0645
			High	20476(*)	.04471	.000	3124	0971
		Mid	Low	.15771(*)	.03872	.000	.0645	.2509
			High	04706	.03872	.676	1403	.0462
		High	Low	.20476(*)	.04471	.000	.0971	.3124
			Mid	.04706	.03872	.676	0462	.1403
	Gabriel	Low	Mid	15771(*)	.03872	.000	2493	0661
			High	20476(*)	.04471	.000	3121	0974
		Mid	Low	.15771(*)	.03872	.000	.0661	.2493
		High	High Low	04706	.03872	.522	1387	.0446
		1 11911	Mid	.20476(*)	.04471	.000	.0974	.3121
	Games-Howell	Low	Mid	.04706	.03872	.522	0446	.1387
	Garries-Howell	LOW		15771(*)	.03678	.000	2447	0707
		Mid	High Low	20476(*) .15771(*)	.04187	.000	3039 .0707	1056 .2447
			High					
		High	Low	04706	.03900	.451	1394	.0452
		1 11911	Mid	.20476(*)	.04187	.000	.1056	.3039 .1394
CnP_vi	Bonferroni	Low	Mid	.04706 .05479	.15902	.451 1.000	0452 3281	.1394
-			High	.00000	.18362	1.000	4422	.4422
		Mid	Low	05479	.15902	1.000	4377	.3281
			High	05479	.15902	1.000	4377	.3281
		High	Low	.00000	.18362	1.000	4422	.4422
			Mid	.05479	.15902	1.000	3281	.4377
	Gabriel	Low	Mid	.05479	.15902	.980	3215	.4311
			High	.00000	.18362	1.000	4409	.4409
		Mid	Low	05479	.15902	.980	4311	.3215
		High	High	05479	.15902	.980	4311	.3215
		High	Low	.00000	.18362	1.000	4409	.4409

			Mid	.05479	.15902	.980	3215	.4311
	Games-Howell	Low	Mid	.05479	.16447	.941	3348	.4444
			High	.00000	.18002	1.000	4264	.4264
		Mid	Low	05479	.16447	.941	4444	.3348
			High	05479	.15121	.930	4126	.3030
		High	Low	.00000	.18002	1.000	4264	.4264
			Mid	.05479	.15121	.930	3030	.4126
CnH_vi	Bonferroni	Low	Mid	65753(*)	.23156	.015	-1.2151	0999
			High	94521(*)	.26738	.001	-1.5891	3014
		Mid	Low	.65753(*)	.23156	.015	.0999	1.2151
			High	28767	.23156	.645	8453	.2699
		High	Low	.94521(*)	.26738	.001	.3014	1.5891
	0.1.1		Mid	.28767	.23156	.645	2699	.8453
	Gabriel	Low	Mid	65753(*)	.23156	.013	-1.2055	1095
			High	94521(*)	.26738	.001	-1.5872	3032
		Mid	Low	.65753(*)	.23156	.013	.1095	1.2055
		High	High Low	28767 04534(*)	.23156	.503	8357	.2603
		1 11911	Mid	.94521(*)	.26738	.001	.3032	1.5872
	Commercial !!	1		.28767	.23156	.503	2603	.8357
	Games-Howell	Low	Mid	65753(*)	.21447	.007	-1.1647	1504
		Mid	High Low	94521(*)	.25878	.001	-1.5583	3321
		iviid		.65753(*)	.21447	.007	.1504	1.1647
			High	28767	.24282	.464	8628	.2875
		High	Low	.94521(*)	.25878	.001	.3321	1.5583
			Mid	.28767	.24282	.464	2875	.8628
Tot_C	Bonferroni	Low	Mid High	34932	.39160	1.000	-1.2923	.5936
		Mid	Low	45205	.45218	.955	-1.5409	.6368
		IVIIU		.34932	.39160	1.000	5936	1.2923
			High	10274	.39160	1.000	-1.0457	.8402
		High	Low Mid	.45205	.45218	.955	6368	1.5409
	Gabriel	Low	Mid	.10274	.39160	1.000	8402	1.0457
	Gabrier	LOW		34932	.39160	.745	-1.2761	.5774
			High	45205	.45218	.682	-1.5378	.6337
		Mid	Low High	.34932 10274	.39160 .39160	.745 .991	5774 -1.0295	1.2761 .8240
		High	Low	.45205	.45218	.682	6337	1.5378
			Mid	.10274	.39160	.991	8240	1.0295
	Games-Howell	Low	Mid	34932	.37696	.624	-1.2416	.5429
			High	45205	.45252	.579	-1.5239	.6197
		Mid	Low	.34932	.37696	.624	5429	1.2416
			High	10274	.40589	.965	-1.0645	.8590
		High	Low	.45205	.45252	.579	6197	1.5239
		_	Mid	.10274	.40589	.965	8590	1.0645
VI_tot	Bonferroni	Low	Mid	-1.16438(*)	.43001	.022	-2.1998	1289
			High	-1.93151(*)	.49653	.000	-3.1272	7359
		Mid	Low	1.16438(*)	.43001	.022	.1289	2.1998
			High	76712	.43001	.226	-1.8026	.2683
		High	Low	1.93151(*)	.49653	.000	.7359	3.1272
			Mid	.76712	.43001	.226	2683	1.8026
	Gabriel	Low	Mid	-1.16438(*)	.43001	.019	-2.1820	1467
			High	-1.93151(*)	.49653	.000	-3.1238	7392
		Mid	Low	1.16438(*)	.43001	.019	.1467	2.1820
		High	High Low	76712	.43001	.199	-1.7848	.2505
				1.93151(*)	.49653	.000	.7392	3.1238

I			Mid	70740	42004	100	2505	1 7040
	Games-Howell	Low	Mid	.76712	.43001	.199	2505	1.7848
	Gaines-nowell	LOW		-1.16438(*)	.45713	.032	-2.2486	0802
		Mid	High Low	-1.93151(*)	.51791	.001	-3.1583	7048
		IVIIG		1.16438(*)	.45713	.032	.0802	2.2486
			High	76712	.41444	.157	-1.7487	.2145
		High	Low	1.93151(*)	.51791	.001	.7048	3.1583
Cb	Bonferroni	Low	Mid Mid	.76712 29452	.41444 .17921	.157 .304	2145 7261	1.7487 .1370
CD	Domerrom	LOW	High	17808	.20693	1.000	6764	.3202
		Mid	Low	.29452	.17921	.304	1370	.7261
			High	.11644	.17921	1.000	3151	.5480
		High	Low	.17808	.20693	1.000	3202	.6764
		riigii	Mid	11644	.17921	1.000	5480	.3151
	Gabriel	Low	Mid	29452	.17921	.262	7186	.1296
			High	29432		.773	6750	.3188
		Mid	Low	.29452	.20693	.262	1296	.7186
		IVIIU	High	.11644	.17921	.882	3077	.5406
		High	Low	.17808	.20693	.773	3188	.6750
			Mid	11644	.17921	.882	5406	.3077
	Games-Howell	Low	Mid	29452	.16695	.185	6892	.1001
			High	17808	.19246	.625	6340	.2778
		Mid	Low	.29452	.16695	.185	1001	.6892
			High	.11644	.18289	.800	3164	.5493
		High	Low	.17808	.19246	.625	2778	.6340
			Mid	11644	.18289	.800	5493	.3164
Cad	Bonferroni	Low	Mid	.66438	.30783	.095	0769	1.4056
			High	.82192	.35545	.064	0340	1.6778
		Mid	Low	66438	.30783	.095	-1.4056	.0769
			High	.15753	.30783	1.000	5837	.8988
		High	Low Mid	82192	.35545	.064	-1.6778	.0340
	0.1.1			15753	.30783	1.000	8988	.5837
	Gabriel	Low	Mid	.66438	.30783	.085	0641	1.3929
			High	.82192	.35545	.063	0316	1.6754
		Mid	Low	66438	.30783	.085	-1.3929 5710	.0641
		High	High Low	.15753 82192	.30783	.938 .063	5710 -1.6754	.8860 .0316
			Mid		.30783	.938		
	Games-Howell	Low	Mid	15753			8860	.5710
	Janies-nowell	LOW		.66438 .82192	.30526 .35423	.079 .056	0584 0170	1.3872 1.6608
		Mid	High Low	.82192 66438	.30526	.056	-1.3872	.0584
			High	.15753	.30967	.867	-1.5672	.8909
		High	Low					
		riigii	Mid	82192 15752	.35423	.056	-1.6608	.0170
ļ			IVIIU	15753	.30967	.867	8909	.5758

Mid | \* The mean difference is significant at the .05 level.

# Appendix W RQ2b

### **Test of Homogeneity of Variances**

	Levene Statistic	df1	df2	Sig.
E_Neg_Irr	5.204	2	289	.006
E_Up_Elat	1.425	2	289	.242
E_Gratitude	.891	2	289	.412
E_Wrm_Tend	2.104	2	289	.124
E_Ser_Calm	2.777	2	289	.064

### **ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
E_Neg_Irr	Between Groups	5.938	2	2.969	4.130	.017
	Within Groups	207.753	289	.719		
	Total	213.691	291			
E_Up_Elat	Between Groups	36.781	2	18.391	15.126	.000
	Within Groups	351.386	289	1.216		
	Total	388.167	291			
E_Gratitude	Between Groups	31.679	2	15.839	7.877	.000
	Within Groups	581.166	289	2.011		
	Total	612.845	291			
E_Wrm_Tend	Between Groups	29.849	2	14.925	9.952	.000
	Within Groups	433.397	289	1.500		
	Total	463.247	291			
E_Ser_Calm	Between Groups	6.442	2	3.221	2.835	.060
	Within Groups	328.329	289	1.136		
	Total	334.771	291			

## **Robust Tests of Equality of Means**

		Statistic(a)	df1	df2	Sig.
E_Neg_Irr	Welch	5.956	2	160.643	.003
E_Up_Elat	Welch	14.477	2	148.184	.000
E_Gratitude	Welch	7.502	2	150.939	.001
E_Wrm_Tend	Welch	11.581	2	162.425	.000
E_Ser_Calm	Welch	3.512	2	162.409	.032

a Asymptotically F distributed.

# **Multiple Comparisons**

Depende		(I) Nost Reactio	(J) Nost Reactio	Mean			95% Confi Interv	
nt Variable		n Group 3way	n Group 3way	Difference (I-J)	Std. Error	Sig.		
E_NegIrr	Bonferroni	Low	Med	.11644	.12154	1.000	1762	.40
_ 0			High	.38813(*)	.14034	.018	.0502	.72
		Med	Low	11644	.12154	1.000	4091	.17
			High	.27169	.12154	.078	0210	.56
		High	Low	38813(*)	.14034	.018	7261	05
		J	Med	27169	.12154	.078	5644	.02
	Gabriel	Low	Med	.11644	.12154	.701	1712	.40
			High	.38813(*)	.14034	.018	.0511	.72
		Med	Low	11644	.12154	.701	4041	.17
		Lliah	High	.27169	.12154	.070	0159	.55
		High	Low	38813(*)	.14034	.018	7251	05
			Med	27169	.12154	.070	5593	.01
	Games-Howell	Low	Med	.11644	.13754	.675	2097	.44
		Mod	High	.38813(*)	.13411	.013	.0697	.70
		Med	Low	11644	.13754	.675	4425	.20
			High	.27169(*)	.09881	.018	.0384	.50
		High	Low	38813(*)	.13411	.013	7066	06
E UpElat	Bonferroni	Low	Med Med	27169(*) 66952(*)	.09881 .15806	.018	5050 -1.0501	03 28
E_OpElat	Bonienoni	LOW	High	00932( ) 96918(*)	.18251	.000	-1.4087	52
		Med	Low	.66952(*)	.15806	.000	.2889	1.05
			High	29966	.15806	.177	6803	.08
		High	Low	.96918(*)	.18251	.000	.5297	1.40
		riigii	Med	.29966	.15806	.177	0810	.68
	Gabriel	Low	Med	66952(*)	.15806	.000	-1.0436	29
			High	96918(*)	.18251	.000	-1.4074	53
		Med	Low	.66952(*)	.15806	.000	.2955	1.04
			High	29966	.15806	.157	6737	.07
		High	Low	.96918(*)	.18251	.000	.5309	1.40
			Med	.29966	.15806	.157	0744	.67
	Games-Howell	Low	Med	66952(*)	.15480	.000	-1.0363	30
			High	96918(*)	.19074	.000	-1.4209	51
		Med	Low	.66952(*)	.15480	.000	.3028	1.03
			High	29966	.16598	.172	6933	.09
		High	Low	.96918(*)	.19074	.000	.5174	1.42
E Gratit	Bonferroni	Low	Med Med	.29966 47603	.16598 .20328	.172 .060	0939 9655	.69 .01
E_Graiii	Bonienoni	LOW	High	47603 93151(*)	.23472	.000	-1.4967	36
		Med	Low	.47603	.20328	.060	0135	.96
			High	45548	.20328	.077	9450	.03
		High	Low	.93151(*)	.23472	.000	.3663	1.49
		1 11911	Med	.45548	.20328	.077	0340	.94
	Gabriel	Low	Med	47603	.20328	.053	9571	.00
			High	93151(*)	.23472	.000	-1.4951	36
		Med	Low	.47603	.20328	.053	0050	.95
			High	45548	.20328	.069	9366	.02
		High	Low	.93151(*)	.23472	.000	.3679	1.49
			Med	.45548	.20328	.069	0256	.93

1	Games-Howell	Low	Med	47603	.20924	.063	9719	.0198
			High	93151(*)	.24005	.000	-1.5000	3630
		Med	Low	.47603	.20924	.063	0198	.9719
			High	45548	.20034	.063	9300	.0190
		High	Low	.93151(*)	.24005	.000	.3630	1.5000
			Med	.45548	.20034	.063	0190	.9300
EWrmTn	Bonferroni	Low	Med	43836(*)	.17554	.039	8611	0157
			High	90411(*)	.20270	.000	-1.3922	4160
		Med	Low	.43836(*)	.17554	.039	.0157	.8611
			High	46575(*)	.17554	.025	8885	0431
		High	Low	.90411(*)	.20270	.000	.4160	1.3922
			Med	.46575(*)	.17554	.025	.0431	.8885
	Gabriel	Low	Med	43836(*)	.17554	.035	8538	0229
			High	90411(*)	.20270	.000	-1.3908	4174
		Med	Low	.43836(*)	.17554	.035	.0229	.8538
		High	High Low	46575(*) .90411(*)	.17554 .20270	.022 .000	8812 .4174	0503 1.3908
		9	Med	, ,				
	Games-Howell	Low	Med	.46575(*)	.17554	.022	.0503	.8812
	Games-Howell	LOW		43836(*)	.17092	.030	8426	0341
		Med	High Low	90411(*) .43836(*)	.18750 .17092	.000	-1.3481 .0341	4601 .8426
			High	46575(*)	.17155	.020	8715	0600
		High	Low	` '	.18750	.000	.4601	1.3481
			Med	.90411(*) .46575(*)	.17155	.020	.0600	.8715
E_SerCal	Bonferroni	Low	Med	14384	.15279	1.000	5117	.2241
			High	41096	.17642	.062	8358	.0139
		Med	Low	.14384	.15279	1.000	2241	.5117
			High	26712	.15279	.244	6350	.1008
		High	Low	.41096	.17642	.062	0139	.8358
			Med	.26712	.15279	.244	1008	.6350
	Gabriel	Low	Med	14384	.15279	.712	5054	.2178
			High	41096	.17642	.060	8346	.0127
		Med	Low	.14384	.15279	.712	2178	.5054
		High	High Low	26712 41006	.15279	.214	6287	.0945
		9	Med	.41096	.17642	.060	0127	.8346
	Games-Howell	Low	Med	.26712	.15279	.214	0945	.6287
	Gairies-i iowell	LOW		14384 41006(*)	.15878 .16370	.637	5197 7000	.2320 0231
		Med	High Low	41096(*) .14384	.15878	.035 .637	7988 2320	.5197
			High	26712	.13892	.135	5954	.0612
		High	Low					
		ingii		.41096(*) .26712	.16370 .13892	.035 .135	.0231 0612	.7988 .5954
I T	difference is a		Med	20/12	.13892	.135	0012	.5954

<sup>\*</sup> The mean difference is significant at the .05 level.

# Appendix X RQ2b EFA (no suppression)

## Rotated Component Matrix(a)

			Component		
	1	2	3	4	5
E45_37_Mad	.781	.229	.033	149	230
E8_53_Angry	.778	035	047	.027	080
E38_45_Irritated	.755	065	008	296	.055
E50_50_Annoyed	.751	143	052	258	080
E36_36_Fearful	.747	.230	.075	092	248
E14_38_Afraid	.744	.137	067	.066	103
E17_17_Excited	.010	.838	.165	.061	.010
E18_49_Active	.137	.836	.146	076	.011
E12_12_Playful	.199	.687	.121	018	.045
E20_20_Entertained	200	.664	.206	.297	.114
E32_28_Grateful	025	.252	.893	.102	.060
E33_31_Thankful	034	.290	.879	.127	.050
E3_41_Sentimental	222	.088	.033	.818	.046
E54_54_Reflective	080	.001	.175	.811	.168
E49_8_Calm	134	.012	002	.134	.838
E53_2_Peaceful	235	.128	.114	.066	.787

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 5 iterations.

# Appendix Y **RQ3b** and **RQ4b**

### **Test of Homogeneity of Variances**

	Levene Statistic	df1	df2	Sig.
Aad Mean	3.203	2	289	.042
Ab Mean	.771	2	289	.463
lb Mean	.705	2	289	.495

#### **ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
Aad Mean	Between Groups	55.850	2	27.925	13.372	.000
	Within Groups	603.517	289	2.088		
	Total	659.367	291			
Ab Mean	Between Groups	18.311	2	9.155	4.903	.008
	Within Groups	539.666	289	1.867		
	Total	557.977	291			
lb Mean	Between Groups	105.901	2	52.950	13.193	.000
	Within Groups	1159.942	289	4.014		
	Total	1265.843	291			

## **Robust Tests of Equality of Means**

		Statistic(a)	df1	df2	Sig.
Aad Mean	Welch	12.246	2	146.971	.000
Ab Mean	Welch	4.408	2	145.613	.014
lb Mean	Welch	12.793	2	150.996	.000

a Asymptotically F distributed.

## **Multiple Comparisons**

Depende		(I) Nost Reactio	(J) Nost Reactio	Mean			95% Confidence Interval	
nt Variable		n Group 3way	n Group 3way	Difference (I-J)	Std. Error	Sig.		
Aad Mean	Bonferroni	Low	Mid	58904(*)	.20715	.014	-1.0879	0902
			High	-1.23630(*)	.23919	.000	-1.8123	6603
		Mid	Low	.58904(*)	.20715	.014	.0902	1.0879
			High	64726(*)	.20715	.006	-1.1461	1484
		High	Low	1.23630(*)	.23919	.000	.6603	1.8123
			Mid	.64726(*)	.20715	.006	.1484	1.1461
	Gabriel	Low	Mid	58904(*)	.20715	.013	-1.0793	0988
			High	-1.23630(*)	.23919	.000	-1.8106	6620
-				- 281 -				·

		Mid	Low High	.58904(*) 64726(*)	.20715 .20715	.013 .005	.0988 -1.1375	1.0793 1570
		High	Low	1.23630(*)	.23919	.000	.6620	1.8106
			Mid	.64726(*)	.20715	.005	.1570	1.1375
	Games-Howell	Low	Mid	58904(*)	.22508	.027	-1.1231	0549
			High	-1.23630(*)	.25315	.000	-1.8360	6366
		Mid	Low	.58904(*)	.22508	.027	.0549	1.1231
			High	64726(*)	.19651	.004	-1.1127	1818
		High	Low	1.23630(*)	.25315	.000	.6366	1.8360
	Bonferroni		Mid	.64726(*)	.19651	.004	.1818	1.1127
Ab Mean		Low	Mid High	39726 70548(*)	.19588	.130	8689 -1.2501	.0744
		Mid	Low		.22619	.006		1608
		IVIIG	High	.39726	.19588	.130	0744	.8689
			-	30822	.19588	.350	7799	.1635
		High	Low Mid	.70548(*) .30822	.22619 .19588	.006 .350	.1608 1635	1.2501 .7799
	Gabriel	Low	Mid					
	Cabilei	LOW	High	39726	.19588	.116	8608	.0663
		Mid	-	70548(*)	.22619 .19588	.006	-1.2486	1624
		IVIIG	Low High	.39726 30822	.19588	.116 .298	0663 7718	.8608 .1554
		High	Low	.70548(*)	.22619	.006	.1624	1.2486
			Mid	.30822	.19588	.298	1554	.7718
	Games-Howell	Low	Mid	39726	.19182	.100	8518	.0573
			High	70548(*)	.24095	.011	-1.2762	1348
lb Mean		Mid	Low	.39726	.19182	.100	0573	.8518
			High	30822	.20837	.304	8026	.1861
		High	Low	.70548(*)	.24095	.011	.1348	1.2762
			Mid	.30822	.20837	.304	1861	.8026
	Bonferroni	Low	Mid High	72146(*)	.28718	.038	-1.4130	0299
		Mid	ŭ	-1.69406(*)	.33161	.000	-2.4926	8956
		IVIIU	Low	.72146(*)	.28718	.038	.0299	1.4130
			High	97260(*)	.28718	.002	-1.6641	2811
		High	Low Mid	1.69406(*)	.33161	.000	.8956	2.4926
	Gabriel	Low	Mid	.97260(*)	.28718	.002	.2811	1.6641
	Gabrier	LOW		72146(*)	.28718	.034	-1.4011	0418
			High	-1.69406(*)	.33161	.000	-2.4903	8978
		Mid	Low High	.72146(*) 97260(*)	.28718 .28718	.034 .002	.0418 -1.6522	1.4011 2930
		High	Low	1.69406(*)	.33161	.000	.8978	2.4903
			Mid	.97260(*)	.28718	.002	.2930	1.6522
	Games-Howell	Low	Mid	72146(*)	.29839	.044	-1.4287	0142
			High	-1.69406(*)	.33919	.000	-2.4974	8907
		Mid	Low	.72146(*)	.29839	.044	.0142	1.4287
			High	97260(*)	.28013	.002	-1.6360	3092
		High	Low	1.69406(*)	.33919	.000	.8907	2.4974
			Mid	.97260(*)	.28013	.002	.3092	1.6360

<sup>\*</sup> The mean difference is significant at the .05 level.