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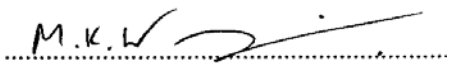
Signed: 

Date: 9th June 2011

Subjective Wellbeing in Australian Families of Holocaust Survivors

by

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BAppSc (Psych) (Hons)

Submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

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DEAKIN UNIVERSITY

CANDIDATE DECLARATION

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“As I haven’t got any photos of my past, I want to have as many photos as possible from my family so that when I look around I feel “Here’s my family”. After all what happened to me, what I have been through, I’ve achieved, and this is my family. This is the life that was worth fighting, and surviving for.”

Simon Michalowicz, Holocaust survivor.

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Finally, this thesis is dedicated to the bravest people I know: my grandparents, Esther and Simon Michalowicz, and Helen ה״ע and Israel ה״ע Weinberg. I know that I didn't need to do a PhD to make you proud of me. This is my contribution to preserving the memory of what happened to you and to your families so that it will never be forgotten. Your resilience in spite of adversity and your determination to lead lives filled with happiness and love are a constant source of inspiration to me. I love you.

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EXECUTIVE SUMMARY

Sixty-five years after the Holocaust, there is considerable evidence to suggest that survivors continue to feel the psychological after-effects from their early traumatic experiences. Moreover, there is some suggestion that the psychological trauma has been passed down to their children and grandchildren, the second and third generations. Little research has considered the possibility of the intergenerational transmission of such trauma in Australia. The aim of this research is to explore the intergenerational transmission of trauma in an Australian sample, under the theoretical framework of Subjective Wellbeing (SWB) Homeostasis. The conceptual areas of Social Capital, Jewish Identity, Attachment and Post-Traumatic Stress Disorder (PTSD) are also investigated.

The first study explored the SWB of Australian Jews, with comparisons to data gathered from a stratified-random sample of the general Australian population. Initial findings revealed that, despite subtle differences in some aspects of wellbeing, most of the variation between the two samples could be explained by the greater income of the Jewish sample.

The Jewish sample was then divided according to whether or not they were descendants of Holocaust survivors, and the number of survivor parents or grandparents that were part of their immediate family. Descendants of survivors, as a group, reported lower general positive mood (HPMood). Further investigation revealed that these group scores were being brought down in particular by members of the second generation who were children of two parent Holocaust survivors. This subgroup also reported lower scores on all wellbeing variables than those who had only one parent survivor. This implies that while the transmission of trauma down to the second generation may only occur for those who had two parent survivors, having one parent who was not a Holocaust survivor helps to compensate for trauma transmission.

The aim of the second study was to replicate these results, and additionally to explore the processes by which trauma may be transmitted. The findings confirmed that descendants of survivors reported lower HPMood than the general Australian sample, although there were no differences in wellbeing based on the

number of survivor parents. This was probably due to the sample as a whole reporting particularly low SWB, for which the reasons were not clear. Further analyses involving descendants of survivors revealed that, although they reported higher symptoms of Holocaust-related PTSD, the intergenerational transmission of trauma could best be explained by an Attachment model. In addition, Mother Care added to the explanation of SWB beyond HPMood and Self-Esteem.

The third study aimed to investigate whether the model created in Study 2 to explain SWB in families of Holocaust survivors, would also fit a general Australian sample. Findings revealed that it did in fact fit a general Australian sample, and further modelling with additional SWB variables demonstrated that Mother Care may be an important and underdeveloped component in the Homeostatic model.

In summary, this thesis proposes that an intergenerational transmission of trauma exists in a sample of Australian Jewish families of Holocaust survivors. The effects are evident through two generations of descendants, and can best be explained through an Attachment perspective. Including attachment variables in the Homeostatic model may add to the understanding of SWB in the general Australian population.

CHAPTER 1: SUBJECTIVE WELLBEING

Quality of life was defined by Campbell, Converse, and Rodgers (1976) as an individual's perceived level of satisfaction with their life in general, which is predicted by their level of satisfaction with particular life domains. Across these domains, individuals evaluate their experiences through affective and cognitive components (Andrews & Withey, 1976). Agreement as to the particular contributions of these components to overall life satisfaction is not universal. However, it is recognised that together, these components constitute a perceived level of well-being, termed Subjective Wellbeing (SWB; Diener & Diener, 1996; Diener, Suh, Lucas, & Smith, 1999; Davern, Cummins, & Stokes, 2007). This term is akin to general mood "happiness".

Cognition and subjective wellbeing

The cognitive component of SWB involves the concept of life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985). Rather than asking individuals how 'happy' they are, asking how 'satisfied' they are is assumed to necessitate a cognitive comparison of one's own life to internal standards of what is acceptable. This idea is consistent with Michalos' (1985) Multiple Discrepancies Theory. According to this theory, satisfaction is determined by perceived discrepancies between what one has and wants, what relevant others have, the best one has had in the past, what one expected to have, what one expects to have in the future, what one deserves and what one needs. That is, where there is less discrepancy, an individual is more satisfied with their life.

Affect and subjective wellbeing

The affective component of subjective wellbeing comprises moods and emotions that together are termed 'affect'. The affect experienced at any time is a combination of positive and negative feelings, such as joy, guilt, shame, and pride (Diener et al., 1999). Subjective wellbeing in these terms reflects the experience of positive emotions with low levels of negative states (Diener, Lucas, Oishi, & Suh, 2002). Importantly, however, it has been established that positive and negative affects are independent concepts. That is, the absence of one does not

imply the presence of another; positive affect and negative affect are not opposites of the same spectrum (Bradburn, 1969). Thus, asking individuals to report on how 'happy' they are is insufficient to measure subjective wellbeing because it neglects to acknowledge the role of negative emotions.

In addition, questions relating to emotions typically involve a cognitive component (Russell, 2003; Davern, Cummins, & Stokes, 2007). That is, people feel happy because something happened to make them feel happy; people feel fear because something has made them scared. In order to then clarify the role and definition of 'emotion' in wellbeing psychology, Russell (2003) sought to distinguish pure affect from affect with a cognitive association. He defined a construct called 'core affect' to represent a purely affective, prolonged, and "free-floating" state (p. 148).

Core Affect

To remove the cognitive undertone from a measure of true affect, Russell (2003) asserted that the discriminating feature between 'moods' and 'emotions' was the presence or absence of an object. Whereas an emotion is typically directed at an object and is an invoked reaction, core affect is much more like a 'mood', as a more prolonged state which is 'object-free'. Thus, core affect is defined as "that neurophysiological state consciously accessible as the simplest raw (nonreflective) feelings evident in moods and emotions" (p. 148).

Russell (2003) proposed that at any given point in time, a person's current affect could lie at any point in a circumplex. This circumplex, as given in Figure 1, is anchored on the vertical axis by the points "Activation" and "Deactivation" and on the horizontal axis by "Pleasure" and "Displeasure". By definition, core affect is generally outside of conscious awareness, yet experiencing an affect toward the extreme of either axis can bring awareness of core affect to the forefront, and from there guide future behaviour.

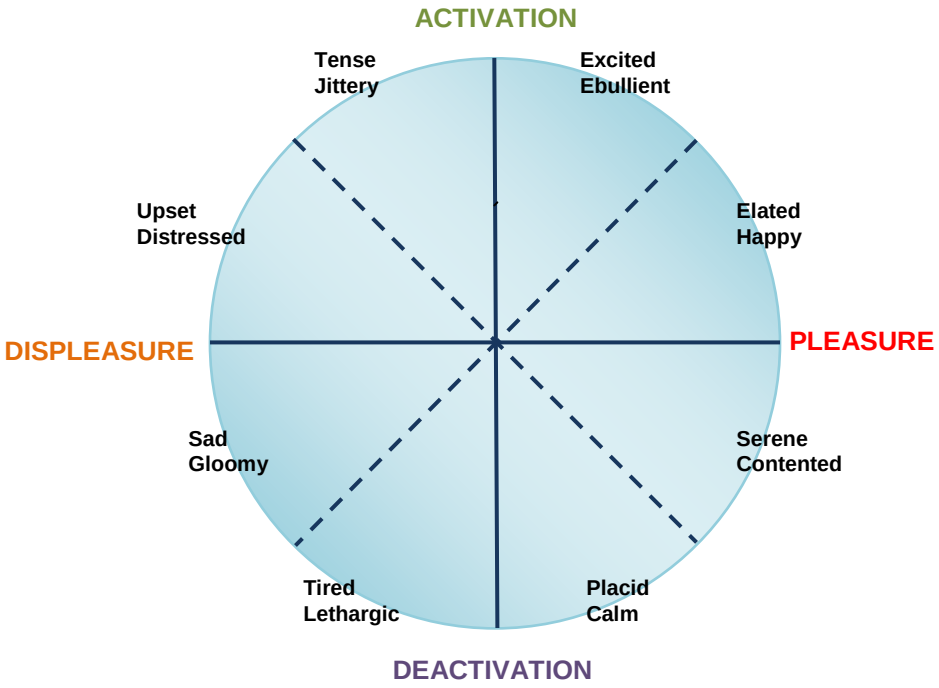

Figure 1: Core Affect (reproduced from Russell, 2003)

Core affect has been said to be comparable in nature to felt body temperature (Russell, 2003). Like body temperature, core affect is always there, though not always consciously noted. Extreme affect, like extreme temperature, brings awareness of it to consciousness, and Russell notes that affect (and temperature) existed before there were words to describe them.

Core affect and subjective wellbeing: The development of an affective-cognitive approach

Whilst exploring the cognitive and affective components of SWB, Davern, Cummins, and Stokes (2007) sought to determine the affective terms that accounted for the most variance in SWB. They also sought to clarify the specific contribution of affect to SWB, in comparison to cognitive and personality components.

The first study involved 478 individuals who agreed to participate in the Australian Unity Wellbeing Index longitudinal study (November 2002). Participants were asked the general measure of SWB "How satisfied are you with

your life as a whole". They were then asked to rate a large set of affects in terms of how "each of the following describes your feelings when you think about your life in general" on a scale where 0 = "not at all" to 10 = "extremely" (Davern, Cummins, & Stokes, 2007, p. 432). There were 31 affect terms representing the four quadrants of the affective circumplex.

Results from a standard multiple regression identified six affect terms that contributed significant unique variance to SWB. When just these six terms were regressed onto SWB, five of them contributed significant unique variance, explaining a combined 64% of variance. These terms were *Energised, Happy, Content, Satisfied* and *Stressed*, leading the authors to suggest that SWB is primarily an affective construct. For the second study, Davern, Cummins, and Stokes (2007) dropped the term "Satisfied", as it overlapped with the wording of the dependent variable (Satisfaction with Life as a Whole) and "Stressed" due to ambiguity. The term "Energised" was re-worded to "Excited", leaving *happy, content,* and *excited* as the proposed best measures of core affect.

The second study involved 854 participants from the 8th Australian Unity Wellbeing Index (August, 2003) and aimed to establish the relative contributions of the following variables to SWB. These were affect (happy, content, and excited), cognition (7 items derived from Michalos' (1985) Multiple Discrepancies Theory, MDT) and personality (60 items from the NEO-PI-R, Costa & McCrae, 1992, which were factored into the 5 traits of Agreeableness, Conscientiousness, Extraversion, Neuroticism and Openness). SWB was measured using the PWI (International Wellbeing Group, 2006).

Three models were explored, each using a different independent variable as the primary driver of SWB. The "Affective-Cognitive model" proposed a pathway with Core Affect at the helm. Structural equation modelling revealed that this model explained 90% of the variance in SWB, with MDT (the cognitive component) having supplementary influence. The personality variables proved to be weak contributors. When personality was used as the driver of SWB instead of Core Affect, Extraversion and Neuroticism contributed uniquely to the prediction of SWB (along with MDT and Core Affect), although their contribution was still relatively small. In the light of these findings, follow-up analyses were conducted

which revealed that correlations between the personality variables and SWB were reduced or even removed when the effect of Core Affect was controlled for (Davern, Cummins, & Stokes, 2007), confirming the Affective-Cognitive model's proficiency over the personality-driven model.

Finally, a Cognitive-Affective model (with MDT as the primary driver) was tested. The authors noted that although this model proved the most parsimonious, the model-fit statistics were better for the Affective-Cognitive model. In summary, the best-fitting model was proposed to be the Affective-Cognitive model, showing that 90% of variance in SWB can be explained by Core Affect and MDT, with personality not contributing independently to the prediction of SWB (Davern, Cummins, & Stokes, 2007). Together, these studies suggest that Core Affect, measured by the affect terms, happy, content, and excited, is the predominant driver of SWB, with cognitive components playing a supplementary role.

In a subsequent study, Tomyn (2008) used a sample comprising 146 high-school participants, to regress nine affect adjectives onto SWB. After preliminary analyses, the top five predictors, *happy, content, alert, active* and *unhappy* were entered in a step-wise multiple regression, again with SWB as the dependent variable. Only happy, content, and alert contributed significant unique variance to SWB, and these items together explained 59% of the variance.

Core affect, as it is described above, is now a key component of the homeostatic model of wellbeing (Cummins, Gullone, & Lau, 2002; Cummins, 2010). However, recently, Russell (2009) revised his account of core affect and suggested that it "can come to be directed at something" (p. 1265). In so doing, Russell contradicted his earlier definition of core affect, which specifies that it is 'object-free' and thus void of cognition. To address this, Cummins (2010) introduced the term Homeostatically Protected Mood (HPMood).

Homeostatically Protected Mood

Homeostatically Protected Mood (HPMood) is "a biologically determined positive mood that comprises the most basic experienced feeling" (Cummins, 2010, p. 12). By definition, it is controlled by an inbuilt system that operates to

maintain it within a set range. This modified description of HPMood is therefore more similar to Russell's original conception of core affect in that it comprises "the tonic state of affect" (Cummins, 2010, p. 12) and is "not about anything… experienced in relation to no known stimulus" (Russell, 2003, p. 148). This description is now consistent with affect as it is understood in the homeostatic model of wellbeing (Cummins, Gullone, & Lau, 2002).

The stability of Subjective Wellbeing and the homeostatic model

The homeostatic model of subjective wellbeing (Cummins et al., 2002) proposes that individuals have a 'set-point-range' within which their SWB is maintained. Support for this idea comes from a review of 16 empirical studies of life satisfaction in Western countries by Cummins (1995). According to Cummins, when scores on response scales are converted to percentages of the scale maximum (%SM), SWB is maintained between the range of 70-80% SM. Such remarkable consistency suggests that there is an underlying homeostatic mechanism that acts to maintain SWB within a healthy normal range (Cummins, Gullone, & Lau, 2002).

Further support for a homeostatic model was established in a review of life satisfaction studies which extended to include non-Western countries (Cummins, 1998). In this report, Cummins found that across 45 different countries from all over the world, the normative range for SWB fell between 60-80 %SM. Perhaps even more convincing, findings from a series of studies using the Australian Unity Wellbeing Index over the years 2001-2009 reveal that the wellbeing of Australians at any given period can be predicted, with 95% certainty, to lie within roughly a 3-point range. This range is between 73.2-76.3 on a 0-100 scale (Cummins et al., 2009).

The idea that SWB is under homeostatic control implies that external agents may challenge SWB and cause fluctuations within the set-point range. However, homeostatic mechanisms, including the cognitive buffers of self-esteem, control, and optimism, act to prevent the external agent from controlling SWB. Only when the strength of the challenging agent is great enough to be beyond the control of homeostasis will SWB fall below an individual's set-point range. Figure 2 shows homeostasis in action as it becomes challenged by an external force.

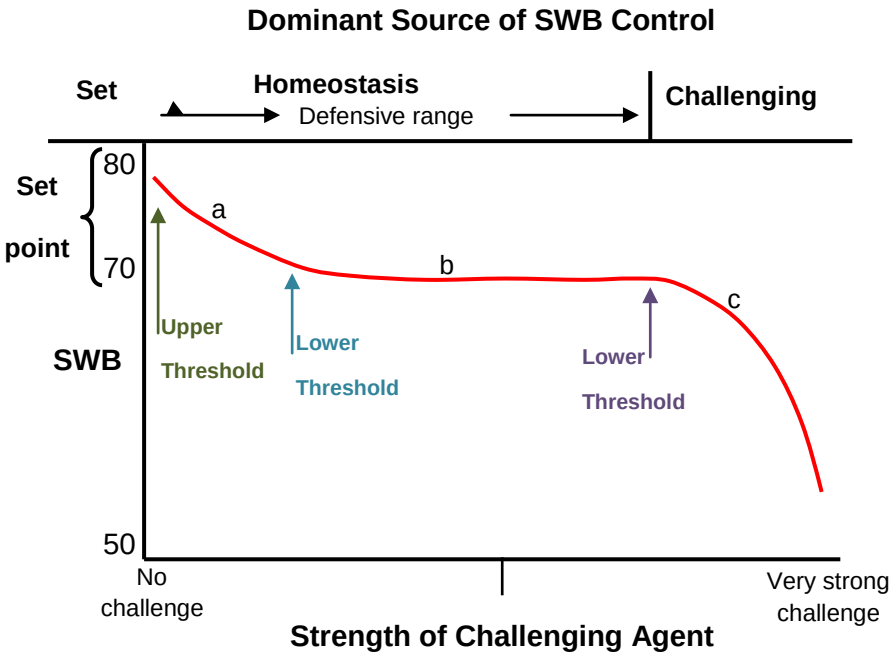

Figure 2: Changing levels of SWB as homeostasis is challenged (reproduced from Cummins, 2010).

Figure 2 demonstrates the nature of homeostasis. It shows that when there is no agent challenging the system, SWB is held towards the higher end of an individual's set-point range. As the system comes under challenge, SWB drops to the lower end of the set-point range. Here, homeostatic mechanisms, such as cognitive buffers, are acting to keep SWB manageable. When the strength of the challenging agent becomes too strong for the homeostatic system to manage, SWB drops below the set-point range, and is then said to be beyond homeostatic control. It has been suggested that when the homeostatic system has been defeated by the challenging agent and SWB falls below the set-point range, an individual may become vulnerable to depression (Cummins, 2010).

Keeping SWB steady - the cognitive buffers

The nature of the homeostatic system described above involves a set of cognitive "buffers" which are active in maintaining wellbeing within the set-point range (Taylor & Brown, 1988). These authors argued that in order to maintain mental health, individuals use cognitive 'illusions', which are unrealistically

positive evaluations about their sense of self, their sense of optimism, and their perceptions of control or mastery. Subsequently, these three illusions were included by Cummins and Nistico (2002) in their homeostatic model of wellbeing, playing a buffering role. This idea stemmed from studies which reported that life satisfaction is strongly correlated to self-satisfaction (e.g., Campbell, 1981; Argyle & Lu, 1990; Diener & Diener, 1995). As self-satisfaction is a somewhat vague term, Cummins and Nistico (2002) proposed that the concept be broken down into the three constituent parts described by Taylor and Brown (1988). These parts are self-esteem, optimism, and control.

Self Esteem

Self-esteem involves "a positive or negative orientation toward an object" (Rosenberg, 1979, p. 54), where the object in question is the self. An individual with high self-esteem holds a highly favourable global evaluation of the self (Baumeister, Campbell, Krueger, & Vohs, 2003), which is distinct from a domain-specific evaluation. For example, an individual could have high global self-esteem, yet know that they are bad at math (a specific domain). As individuals are inherently motivated to protect and enhance their self-esteem, they use Freudian defense mechanisms such as projection, displacement, and repression, to devalue poor domain-specific evaluations (Rosenberg, 1979). In this case, the individual could maintain high global self-esteem by undervaluing the importance of being good at math to their lives, and placing stronger emphasis on the things that they are good at. It has been noted that global self-esteem relates to one's feeling about their self, whereas domain-specific self-esteem involves self-related thoughts and comparisons (Baumeister et al., 2003). In other words, global self-esteem is primarily affective, and domain specific self-esteem is primarily cognitive in nature. Likely due to its affective relevance, it is global self-esteem, assessed most commonly using Rosenberg's Self-Esteem Scale (RSES; Rosenberg, 1965), that is of interest in wellbeing and happiness studies.

The role of self-esteem in relation to wellbeing has been the subject of much research. A commonly cited study is that by Diener and Diener (1995), in which a huge sample of 13,118 college students from 31 countries was recruited to explore the correlations between life satisfaction and self-esteem. When

considered alongside satisfaction with family, friends, and finances, self-esteem showed the highest correlation with life satisfaction, with $r = .47$. Using multiple regression, they also showed that self-esteem accounted for 32% of variance in life satisfaction, and this was higher than any of the other entered variables. Despite the implications of these results, however, it should be noted that the measure of self-esteem used in the Diener and Diener (1995) study was the single item of "satisfaction with self" and not the typically used 10-item RSES. Thus, although satisfaction with self showed a high correlation with life satisfaction, this could partly be due to the similarity in the item-wordings.

A more recent study, by Lyubomirsky and Lepper (2002) did use the RSES to measure self-esteem. Due to the consistent high correlations between happiness and self-esteem, these authors aimed to establish that happiness and self-esteem are indeed two separate constructs. The authors noted that people who are happy tend to feel good about themselves, and that those with low self-esteem tend to feel unhappy, so although these constructs are obviously related, they are not entirely the same. Their results, based on 621 retired people, indicated that although happiness and self-esteem had a moderately high correlation of $r = .58$, they correlated differently with other variables. Happiness correlated higher with extraversion, neuroticism, mood state, affect, loneliness and energy level. Self-esteem showed stronger relationships with other variables, namely optimism, hopelessness, sense of mastery, satisfaction with education, and other areas of need satisfaction (Lyubomirsky & Lepper, 2002).

In the homeostatic model of subjective wellbeing, self-esteem is accorded the role of a 'buffer', suggesting that it acts as a resource that helps people to overcome negative situations (Baumeister et al, 2003; Cummins, Gullone, & Lau, 2002). According to this view, having high self-esteem operates to buffer the effects of stress and misfortune, such that the impact of negative events on overall wellbeing is reduced. The buffer hypothesis has been supported by studies which show that self-esteem moderates the impacts of negative events. For example, Corning (2002) showed that perceived discrimination among women was linked with less distress among those with high self-esteem than their low self-esteem counterparts. Not only can self-esteem act to buffer emotional outcomes, a study by DeLongis, Folkman, and Lazarus (1988) showed that self-esteem can extend to

buffer physiological outcomes. These authors found that following a stressful event, individuals with low self-esteem were more likely to experience an increase in physiological and somatic complaints, such as headaches, flu symptoms, and back pain, than those who had high self-esteem.

The conceptual framework that guides the role of self-esteem as a buffer in the homeostatic model (Cummins, Gullone, & Lau, 2002) involves the idea that an individual with high self-esteem has the ability to separate themselves from the negative event that has occurred. For example, in Corning's (2002) study, individuals high in self-esteem were able to separate themselves personally from the discrimination targeted towards the group of which they were a part. Those low in self-esteem were more likely to internalise the discrimination as relating to them individually, and therefore were more distressed by it. In summary, as well as self-esteem showing a strong relationship with SWB, there is also some evidence that it can act as a buffer which helps to maintain normal levels of SWB in the face of stressful or negative situations. However, self-esteem is not the only buffer to SWB. Optimism is also proposed as a cognitive buffer in the homeostatic model.

Optimism

Optimism is the belief that one's future will be better than the present. Optimism is considered to be a general disposition, such that optimistic people feel, in general, that things will happen in their favour and that good things will happen to them rather than bad (Scheier & Carver, 1985; Robinson & Ryff, 1999). Indeed, many studies have illustrated that most people believe their chances of experiencing a positive event in the future, or of not experiencing a negative event, are greater than their peers (e.g., Weinstein, 1980; Perloff & Fetzer, 1986).

Being optimistic involves a discrepancy between one's "present self" and one's "future self" (Ryff, 1991). In exploring mental health through a review, Ryff proposes that current and past self-evaluations are considered, but future-self evaluations are often overlooked. She asserts that in studies of SWB it is as important to assess one's anticipation of functioning well in the future as it is to assess one's current or past state. Certainly, and in support of this view, optimism

has been shown to have a strong relationship with life satisfaction (Fitzgerald, Tennen, Affleck, & Pransky, 1993; Chang, 1998).

There is much evidence linking optimism to physiological as well as psychological wellbeing. For example, optimists recover faster and report higher quality of life following surgery than do pessimists (Scheier et al., 1989), and optimists report better mood and physical health (Segerstrom, Taylor, Kemeny, & Fahey, 1998). A common explanation given for these findings is that optimism is a coping mechanism, whereby optimistic people use more efficient coping strategies in the face of negative events than do pessimists (Scheier, Carver, & Bridges, 1994). If optimists do cope better than pessimists, this fuels a cycle whereby their better coping methods enable optimists to actually recover faster and feel better than pessimists. Then, with the added confidence in their ability to overcome negative events, optimists are probably more likely to cope better when faced with another negative event in the future.

Beyond being a coping mechanism, optimism is also proposed as a buffer for subjective wellbeing (Taylor & Brown, 1988; Cummins & Nistico, 2002). In the same way that an individual can limit the impact of a negative event through their high self esteem, an optimistic outlook helps people to see that a negative event which is occurring now will, in fact, diminish with time. A strong sense of optimism can reduce the impact of unpleasant events by emphasising the temporary nature of a negative occurrence.

In summary, optimism joins self-esteem as a cognitive buffer in the Homeostatic model of SWB. Together, these forces act to reduce or limit everyday challenges to normal SWB. A third buffer completes the set and involves the concept of ‘control’.

Control

The notion of control in psychology is one fraught with definitional inconsistencies and misinterpretations. In fact, a search by Skinner (1996) prompted her to construct an appendix of over 100 terms that either includes the word “control” or terms that relate closely to the construct. Typically, discussions of the notion of control in psychology refer back to an early distinction between

either an internal and external ‘locus of control’ (Rotter, 1966). Internal locus of control refers to attributing events to one’s own doing, whereas external locus of control means attributing outcomes to external agents such as luck or fate. High internal control is linked to happiness (Kopp & Ruzicka, 1993), life satisfaction (Lewinsohn, Redner, & Seeley, 1991), and is generally believed to foster a positive sense of wellbeing. An external locus of control is more associated with learned helplessness and greater susceptibility to depression (Rothbaum, Weisz, & Snyder, 1982).

Another way that control has been conceived is in terms of perceived or actual control (Skinner, 1996). Perceived control, as opposed to actual control, is a person’s belief that they are in control, regardless of the actual control they have over a situation. Perceived control is thought to be so strongly associated with other aspects of wellbeing, such as self-esteem and effective coping, that some authors have gone so far as to propose that a loss of control is actually responsible for depression (Seligman, 1975; Abramson, Metalsky, & Alloy, 1989).

Against the bold claims that internal control or perceived control is ‘good’ and external control or loss of control is ‘bad’, Rothbaum, Weisz, and Snyder (1982) sought to negate the premise that attributing outcomes to external agents, or losing perceived control, is detrimental to wellbeing. Instead, they introduced the terms primary and secondary control, as distinct from internal and external control, or perceived and actual control. Primary and secondary control refer to different, albeit both adaptable, types of control that individuals have at their disposal. The authors provided no suggestion as to whether either primary or secondary control was more effective in a given situation, though this conceptualisation allowed for the possibility that both attributions could have a positive outcome.

According to this new terminology, primary control involves attempting to change the world to fit one’s needs. When people exhibit primary control they are actively trying to influence or modify an existing reality (Weisz, Rothbaum, & Blackburn, 1984). Examples of primary control include trying to influence others’ opinions, or trying to change the surrounding environment. Under normal circumstances, people generally use primary control tactics to maintain a sense of

mastery over their world. However, when a situation arises in which primary control strategies fail, people do not simply relinquish control and become 'helpless'. Instead, they turn to a back-up control system, known as secondary control (Rothbaum, Weisz, & Snyder, 1982; Heckhausen & Schulz, 1995).

Secondary control involves changing oneself so as to fit with a changing environment. Secondary control is still active and goal-directed, although the actions are directed at changing the self rather than the surrounding environment (Skinner, 1996). Secondary control strategies can be predictive, vicarious, illusory, or interpretive (Rothbaum, Weisz, & Snyder, 1982; Weisz, Rothbaum, & Blackburn, 1984). Predictive secondary control involves attempts to predict future outcomes, so that the impact of these outcomes on the self can be controlled. For example, a runner who has trained hard for a race may predict that, despite their best effort, they may likely only finish fourth in the field rather than first. By doing so, they have pre-accepted their potential for a poor performance and can avoid any disappointment that would have otherwise accompanied a fourth placing. Vicarious secondary control involves attempts to associate or align oneself with powerful others so as to share in their successes. Illusory secondary control involves attempts to align oneself with the forces of chance or luck so that one can feel a sense of control over an otherwise uncontrollable outcome. Interpretive secondary control involves attempting to find reason in events that cannot be changed (Weisz, Rothbaum, & Blackburn, 1984).

The concept of secondary control as a 'back-up system' to primary control prompted a change in the way theorists regard control. Behaviour typical of secondary control might have been considered in the past to be a passive response to an unforeseen event or situation. In modern Western cultures, where there is a strong emphasis on autonomy and self-determination, reacting 'passively' could be considered ineffective and 'weak' (Morling & Evered, 2006). However, Rothbaum, Weisz, and Snyder (1982) were insistent to note that "motivation to feel 'in control' may be expressed not only in behaviour that is blatantly controlling but also, subtly, in behaviour that is not" (p. 7). Thus, rather than seeming as if one has relinquished control, secondary control simply represents a different form of perceived control in which one acknowledges that the ability to

exert primary control may be limited, and so actively deflects control of the situation to an external agent.

Control is the third buffer proposed in Cummins' Homeostatic Model. By engaging in primary or secondary control tactics, negative events can be managed and their effect on wellbeing can be restricted (Cummins, Gullone, & Lau, 2002). Evidence for the role of control as a buffering mechanism comes from studies that link perceived control to higher wellbeing. For example, Thompson and Spacapan (1991) report that having a strong sense of control results in better coping for people who have experienced major life stressors, such as cancer patients, heart attack patients, and mothers of infants who are at high risk for illness. Further, a study of non-clinical adolescents, adults and older adults revealed that individuals who reported a higher sense of subjective control also reported higher levels of daily happiness (Larson, 1989).

Together, the proposed role of self-esteem, optimism and control in the homeostatic model of wellbeing is to act to reduce everyday stressors that may cause wellbeing to drop within one's set-point range. By doing so, they help to maintain a generally positive outlook even when negative situations are encountered.

Measuring SWB - The Australian Unity Wellbeing Index and the PWI

The Australian Unity Wellbeing Index (Cummins, Eckersley, Pallant, Van Vugt, & Misajon, 2003) has been used to track the wellbeing of the Australian population at approximately three-month intervals since April, 2001. For each survey, a sample of 2000 different Australians is selected, based on geographical representation, to be interviewed by phone. The latest survey, conducted in September 2010 brings the total number of surveys in the series to 24, involving 48,000 respondents.

The measure of wellbeing used in the Australian Unity surveys is the Personal Wellbeing Index (PWI; International Wellbeing Group, 2006), alongside a general single-item measure of life satisfaction, "how satisfied are you with your life as a whole". This single item reflects an aggregate and highly abstract

appraisal of an individual's overall satisfaction with various sub-domains of their life, such as their health or relationships.

The PWI includes eight different sub-domains of life, and respondents indicate their satisfaction or dissatisfaction with each on a 0-10 end-defined scale. In order to become a recognised domain, each must contribute unique variance when regressed against overall life satisfaction. As at the 24th survey, there are now 8 acknowledged sub-domains, including satisfaction with standard of living, health, achievements in life, personal relationships, personal safety, community connectedness, future security and spirituality/religion. As each of these domains account for some variance in overall life satisfaction, the PWI is therefore said to be the first-level deconstruction of life as a whole.

Summary

Subjective wellbeing is primarily an affective construct, although cognitive elements also contribute to its explanation. The homeostatic model of subjective wellbeing asserts that SWB is maintained within a steady set-point range. When the homeostatic system is challenged by an external agent, the buffers of self esteem, optimism and control act to prevent SWB from falling below the set-point range. If the strength of the challenging agent is too powerful, the homeostatic system may be defeated, and is no longer thought to be in control of SWB. The current studies will consider SWB to operate under the homeostatic framework, and will use the Personal Wellbeing Index as the principal measure of SWB.

Recently, some literature has suggested a potential relationship between SWB and social capital. Social capital involves concepts of trust, reciprocity, and norms, and can be considered at the individual, family, or community level. This construct, its origins and its current status, will be discussed in the following chapter.

CHAPTER 2: SOCIAL CAPITAL

The concept of social capital has been addressed from sociological, economic, and political standpoints. There is, thus, a huge and diverse literature on this topic. However, despite this effort, no single definition of the term 'social capital' has emerged as theorists debate over whether it is best assessed as an individual or ecological construct. The point in question is whether individuals themselves possess social capital, or whether social capital is a feature of communities. Due to this lack of theoretical convergence, there has been no uniform operational definition of social capital to guide the development of a universally accepted measurement scale.

The roots of social capital are often traced back to the work of European sociologists Alexis de Tocqueville, Emile Durkheim, and Max Weber (Durkheim, 1964; Weber, 1964; OECD, 2001; Newton, 2001; Portes, 1998). Credit for the original coining of the term 'social capital' is generally given to L. F. Hanifan, who introduced the concept in a 1916 article discussing school reform (Hanifan, 1916; Western, Stimson, Baum, & van Gellecum, 2005; Winter, 2000; Woolcock, 1998; Pooley, Cohen, & Pike, 2005). In the 1960s, Jane Jacobs reintroduced the term, this time from a sociological perspective on urban planning (Winter, 2000; Whitley & McKenzie, 2005). Since then, Glenn Loury (1977) applied the concept to the economic market; however the three contemporary socio-psychological views of social capital come from Bourdieu (1986), Coleman (1988), and Putnam (1993).

Bourdieu

In an attempt to explain children's school academic achievement by means other than natural aptitude, Bourdieu (1986) noted that a connection had been established between economic capital and scholastic achievement. However, this only explained scholastic achievement from a monetary perspective, neglecting to address the social aspects underlying academic success. Bourdieu sought to explain this social aspect as social capital. In defining social capital in the same spirit as economic and cultural capital, Bourdieu (1986) described social capital as a form of 'credit'. Just as economic capital consists of material resources and

exchanges that have the potential to produce financial profit, social capital consists of the social resources and exchanges that arise from relationships and social networks. These resources are the 'credit' from which group members can draw and to which they can contribute. The common substrate of these resources is trust between group members, engendering reciprocity and standards of normal behaviour.

The credit accrued by individuals through social relationships may arise in two different forms; practical and inheritable. In its practical form, credit is gained from social relationships through the exchange of physical goods or symbolic gestures (for example, sharing material resources or providing emotional support), that generate trust between members (Bourdieu, 1986). Mutual trust among individuals in a network facilitates the expectation that one act will be reciprocated by another. These reciprocal acts help to maintain the behaviours and norms that bind and define the relationship.

According to Bourdieu (1986), without some sense of basic sameness (e.g. a common culture) a given individual is unlikely to initiate the exchange system, as there is no guarantee that their act will be reciprocated in the future, and they may leave themselves vulnerable to being 'taken advantage of'. Further, there is no legal binding to regulate the reciprocation; an individual can fail to reciprocate with no apparent repercussions occurring for them. For this reason, it seems that a recognised commonality must form the basis for social capital to grow and continue.

In its inheritable form, social relationships exist through the acquisition of a family name, or some other term of identification that guarantees membership of a particular network (Bourdieu, 1986). In adopting the group name, one is automatically privy to the resources that accompany group membership and, by consequence, the group credit.

By this conceptualisation, Bourdieu suggests that individuals can possess social capital in the form of an objective quantity of credit (Bourdieu, 1986). Accordingly, the amount of social capital each individual has depends on two elements: the number of networks or connections from which one can draw resources (i.e. the number of relationships one has) and the assets, including

financial assistance or emotional availability, that one can in turn contribute to the group credit (Bourdieu, 1986).

Unfortunately, this distinction offers little guide as to how to validly measure social capital (Pooley, Cohen, & Pike, 2005). Bourdieu (1986) proposes that social capital comprises subjective constructs such as feelings of trust and expectations of reciprocity. It seems contradictory for him to then conclude that an objective measure of social capital is adequate to measure this subjective construct. Bourdieu's method of measurement does not match his definition of the construct, and it therefore lacks face validity.

There are also problems in ascertaining the number of networks or connections one has formed. It seems minimalistic to assume that an individual can claim that every relationship they have can be a source of social capital. However, it is unclear which qualities distinguish a relationship with social capital from a simple acquaintance (Portes, 1998). An example is evident in today's modern world, with many people forming connections through the Internet (Williams, 2006; Ellison, Steinfield, & Lampe, 2007). Email and social networking sites connect people, but whether these connections are a source of social capital is debatable.

In addition, Bourdieu's conceptualisation fails to address the strength of social relationships, focusing instead on the number. Some relationships may be of more value to the individual than others (e.g., family and life-long friends compared to work colleagues and distant relatives) and thus, the amount of social capital is not equally distributed across all of one's networks. A particular individual may have a very small, albeit close-knit family, while another has a large circle of friends yet only limited intimacy. A weighted measure of social capital therefore seems necessary, whereby certain relations are given greater value than others.

Shortly after Bourdieu's (1986) paper on the forms of capital, Coleman (1988) discussed social capital with an emphasis on the family structure. It has been noted as 'curious' that Coleman failed to acknowledge Bourdieu's analysis of social capital in his work (Portes, 1998), however this neglect is possibly due

to the fact that most of Bourdieu's early writings were published in French while Coleman was an English-speaking American.

Coleman

In refining the concept of social capital, Coleman (1988) considers that social capital inheres in the relationships between people, particularly within the family unit. As such, social capital is not a property of any individual, but rather is a mutual resource that exists in the links formed between people. This mutual resource can be of benefit to the individuals in the networks, as they can use the resource to help them achieve their interests. Three components of social relations are believed to contribute to this resource; obligations and expectations, information channels, and norms.

The obligations and expectations aspect of social relations is reminiscent of the concept of 'credit'. However, as opposed to a system of collective credit to which individuals can contribute and from which they can withdraw, Coleman (1988) uses the term "credit slips". Accordingly, "if *A* does something for *B* and trusts *B* to reciprocate in the future, this establishes an expectation in *A* and an obligation on the part of *B*. This obligation can be conceived as a credit slip held by *A* for performance by *B*" (Coleman, 1988, p. S102). Individuals who accumulate large numbers of credit slips for all the people with whom they have social relationships, are said to have greater social capital (Coleman, 1988).

For the obligation-expectation system to operate effectively, a sense of trustworthiness must be apparent within the social environment (Coleman, 1988). In the absence of trust, an individual may fail to reciprocate an act (or obligation), in effect taking advantage of the expectations of others. If this were to occur, the system would fail to continue and the individuals who had credit owing would never be paid their dues. This reference to a 'sense of trustworthiness' is akin to Bourdieu's suggestion that a commonality must precede social exchanges.

While the obligations and expectations component advocates that social capital is best measured as the number of credit slips one has in their possession, Coleman (1988) introduces another aspect of social capital that fulfils a separate function altogether; that is, social capital as information channels. Social

relationships can be of value to individuals because they provide a channel through which information can be conveyed. Individuals may then use this information to help them achieve their needs. For example, when two mothers form a relationship because their children are friends, they can exchange information about their children's whereabouts, thereby minimising their worry. In this way, they can effectively monitor their children's activities without being perceived as controlling or overprotective. Social relationships of this kind are not valued in terms of exchangeable credit slips, but are rather valued simply because they provide information (Coleman, 1988).

The concept of information channels illustrates a fundamental difference between the viewpoints of Bourdieu and Coleman. While Bourdieu sees social capital as a resource one can *have*, Coleman sees social capital as a resource one can *use*. Thus, according to Coleman's view, social capital is best described by its function, rather than by its content (Coleman, 1988). It is important to note, however, that defining social capital by its function might introduce a tautology. To define social capital by the functions it produces is to confuse what social capital is, with what social capital does (Portes, 1998).

The third function that social capital is proposed to fulfil involves the setting of and adherence to norms. Effective norms in a social network can benefit the individuals within it. For example, a norm that inhibits crime within a neighbourhood can enhance citizens' feelings of safety (Coleman, 1988). Similarly, a norm that supports completion of high school and attendance at university will encourage learning and provide greater career opportunities. Norms can guide individual action and facilitate achievement. Again, norms do not involve an objective volume of 'credit', but rather reflect social capital in the sense that they allow people to live together in a mutually beneficial environment.

It is implied that together, obligations and expectations, information channels, and norms help to generate trust and trustworthiness within a group. This trust is therefore the common resource that group members can use for their benefit. Though trust may indeed be created and reinforced by the elements that comprise social capital, a reverse system whereby trust *creates* social capital seems possible as well. Trust seems to be an underlying factor that precedes each

component of social capital. Obligations and expectations will not be reciprocated without trust; moreover, information will not be transmitted unless both parties trust that the information will not be misused and finally, norms will be ineffective if there is no trust to ensure that people abide by the set norms. Thus, social capital might be best assessed using an indicator of social trust.

In considering how to measure social capital, Coleman (1988) focuses on social capital within the family; in particular, ways in which parents can transfer social capital to their children. Coleman maintains that social capital can be assessed indirectly by measures of parent attention and parent influence (for instance, by showing lowered college dropout rates in families where parents expect their children to complete their degree). If social capital is thought to be a measure of attention and influence, then a more direct measure of these aspects might be the true indicator of social capital. Accordingly, social capital at the family level might be better assessed by asking children about the strength of their relationships with their parents, and how much they feel pressured to comply with parental expectations.

Following his theory of social capital in the family unit, Coleman (1988) briefly attempted to conceptualise social capital outside the family unit, for example, in high schools (Coleman, 1988). This idea was later taken up by Putnam (1993) and extended to cover social capital at the level of the wider community. Putnam embraced Coleman's notions of networks, norms, and trust, but argued that the impacts of social capital are evident mainly at the community level (Whitley & McKenzie, 2005).

Putnam

According to Putnam, high social capital is consistent with high rates of participation in the community (Putnam, 1993). Thus, communities high in social capital have citizens who belong to many networks outside their family circle, including sports clubs, community choirs, parent-teacher associations and volunteer groups. These organisations enhance people's trust in one another and promote norms of reciprocity. However, the direction of cause is unclear; communities high in social capital have many communal networks whilst communities with many communal networks have high social capital.

Putnam's work became influential as he used his conceptualisation of social capital to explain lower voter turn-out in the United States (Putnam, 2000). His book "Bowling Alone" proposed that individuals in the last twenty years have been doing just that; i.e., bowling alone rather than bowling with groups of friends as they did in the past. Putnam's contention was that individuals are less interested in civic engagement and social connections as they now live in a world that fosters self-interest and individual achievement. As a result of this trend, Putnam claimed, America has experienced lower numbers of people at voting booths and declining numbers of people who report that they are involved in public meetings or school affairs. Putnam effectively put social capital on the map in the US, as policy makers took note of "America's declining social capital" (Putnam, 2000).

Putnam contends that networks of community engagement are beneficial because they foster reciprocity, facilitate communication, and are based on past experiences of mutual cooperation that encourage future collaboration (Putnam, 1993). Similar to Coleman's (1988) concept of credit-slips, Putnam suggests a "favour bank" system whereby individuals do things for others expecting that in the future somebody, somehow, will return the favour. Community networks also allow information to be communicated and advise individuals of each other's trustworthiness. Additionally, a history of past collaboration where mutual benefit has been achieved sets the standard for individuals to continue to participate in collaborative community networks. This notion gives rise to a "cultural template" whereby members of the same culture who share a common history perpetuate the social capital of that culture (Putnam, 1993). This cultural template can be used to explain greater trust among culturally similar communities.

One criticism of Putnam's "favour bank" is that it denies the possibility that some people might actually do 'favours' for others without expecting anything in return. Altruism and self-sacrifice have no place in Putnam's argument, which paints a negative portrait of a society in which no deed is done without the intent of future personal gain. If it is true that individuals only engage in community activities for the promise of future benefit to themselves, then Putnam's entire concept of "Bowling Alone" to facilitate self-interest falls apart. Perhaps, rather than individuals foregoing participation at the societal level in order to achieve

self-interests, they have simply found more effective and independent ways to fulfil these interests.

Arguably, Putnam's greatest contribution to the field of social capital research was the distinction between bonding and bridging social capital. This distinction clarified the different types of relationships people can form and their respective values, thereby overcoming one of the major criticisms attributed to Bourdieu's (1986) social capital. It furthermore extended Coleman's (1988) contribution by distinguishing between close family-type bonds and weaker community ties.

Bonding and bridging social capital

Bonding social capital refers to the benefits gained from the types of relationships that are characterised by high emotional support and close connections (Putnam, 1993; Williams, 2006; Ellison, Steinfield, & Lampe, 2007). These relationships are usually those between family and close friends. The benefits of these relationships include trust, reciprocity, and emotional availability (Williams, 2006).

The concept of bridging social capital was based on Granovetter's (1973) discussion of "weak ties". While these ties are not characterised by the emotional bonds that constitute bonding social capital, they provide individuals with a broader network of people from which they can obtain other resources (Williams, 2006). One example of the benefits of bridging social capital comes from Granovetter's research on job-seekers. Granovetter (1974) found that the more successful job-seekers were those who had many loose and diverse connections as opposed to those with fewer, albeit tighter, networks. Granovetter referred to outcomes from these 'bridging' relationships as "the strength of weak ties" (Granovetter, 1974).

Putnam's conceptualisation of social capital at the family (bonding) and community (bridging) level is the most popular commentary in current research (Williams, 2006; Ellison, Steinfield, & Lampe, 2007; Whitley & McKenzie, 2005). For this reason, most recent attempts at measuring social capital have involved questions about the incidence and intensity of community-level events

such as voting or volunteering in community organisations, informal social ties such as having friends over to one's home, tolerance, and trust (Winkelmann, 2009).

Measures of social capital

One of the first attempts to develop a scientific measure of social capital came from Onyx and Bullen (2000). These authors developed a 68-item scale based on the work of Coleman and Putnam. They identified three common themes evident throughout the social capital literature: density of networks in the community, reciprocity, and trust. Onyx and Bullen administered their questionnaire to 1,211 citizens of NSW aged between 18 and 65. Results indicated that 36 of the original 68 items loaded significantly onto a general factor of Social Capital. These 36 items are shown in Table 1 below. In addition to the General Social Capital Factor, eight other factors were shown to account for about 49.3% of the variance. These factors were termed Participation in the Local Community, Social Agency or Proactivity in a Social Context, Feelings of Trust and Safety, Neighbourhood Connections, Family and Friends Connections, Tolerance of Diversity, Value of Life, and Work Connections. The initial three factors were particularly relevant and accounted for 30% of the variance.

Table 1:

The General Social Capital Factor and Best 36 Questions (partially reproduced from Onyx & Bullen, 2000)

Item	Load	I-TCor	%+v
Feels valued by society [G]	0.37	0.31	57
Satisfied with your life if you die tomorrow [G]	0.33	0.32	74
Has picked up others' rubbish in a public place [B]	0.26	0.33	70
By helping others you help yourself in the long run [G]	0.33	0.33	86
Helps local groups as a volunteer [A]	0.31	0.44	30
Feels safe walking down the street after dark [C]	0.29	0.29	49
Most people can be trusted [C]	0.26	0.35	42
Someone's car breaks down – you invite them in to use phone [C]	0.30	0.34	46
Can get help from friends when needed [D]	0.42	0.35	88

Item	Load	I-TCor	%+v
Area has a reputation as a safe place [C]	0.32	0.35	62
Would ask a neighbour for help caring for a child [D]	0.36	0.39	54
Has visited neighbour in past week [D]	0.34	0.31	53
Attend community event in the past 6 months [A]	0.39	0.49	53
Active member of local organisation [A]	0.32	0.41	41
Local community feels like home [C]	0.48	0.48	66
Phone conversations with friends in a week [E]	0.39	0.23	78
Talked to people yesterday [E]	0.41	0.31	88
Over weekend has dinner/lunch with people outside household [E]	0.36	0.22	54
Go outside your local community to visit family [B]	0.26	0.24	68
Run into friends when shopping in your local area [D]	0.39	0.37	69
When need information can find it [B]	0.33	0.33	75
On a local management committee [A]	0.30	0.42	20
Done a favour for a sick neighbour in past 6 months [D]	0.37	0.40	42
Joined local action in an emergency [A]	0.30	0.34	13
Taken part in a community project [A]	0.38	0.51	23
Help organise new service in your area [A]	0.32	0.40	19
Feel free to speak out even when disagreeing with others [B]	0.28	0.27	76
If dispute with neighbours, will seek mediation [B]	0.21	0.28	69
Multiculturalism makes life in your area better [F]	0.25	0.18	50
Enjoy living among people of different lifestyles [F]	0.38	0.31	72
A stranger moving in would be accepted by neighbours [G]	0.35	0.26	73
Feels part of the local community at work [H]	0.34	NA	NA
Workmates are also friends [H]	0.39	NA	NA
Feels part of a team at work [H]	0.39	NA	NA
Takes initiative at work without being told [B]	0.28	NA	NA
Helped a workmate beyond job description [B]	0.22	NA	NA

NOTE: Load = General factor loadings; I-T Cor. = item-total score correlation; %+v = percentage of respondents who indicate 3 or 4 on a 4-point scale. Factors: A = Participation in the Local Community; B = Social Agency or Proactivity in a Social Context; C = Feelings of Trust and Safety; D = Neighbourhood Connections; E = Family and Friends Connections; F = Tolerance of Diversity; G = Value of Life; H = Work Connections.

Table 2:

The Sense of Community Index (reproduced from Obst & White, 2004)

Item	Neighbourhood	Student	Interest
I think my neighbourhood is a good place for me to live [M]	.87	.56	.81
I feel at home in this neighbourhood [M]	.56	.57	.64
It is important for me to live in this particular neighbourhood [M]	.71	.81	.76
People in this neighbourhood do not share the same values [N]	.47	.78	.70
Very few of my neighbours know me [N]	.61	.43	.69
My neighbours and I want the same thing from this neighbourhood [I]	.46	.72	.59
I care about what my neighbours think about my actions [I]	.60	.68	.59
I have almost no influence over what this neighbourhood is like [I]	.46	.43	.57
If there is a problem in this neighbourhood people who live here can get it solved [E]	.87	.45	.85
The people who live in this neighbourhood get along well [E]	.80	.96	.78

Note: The letters following each item indicate the factor onto which they load. M = Membership; N = Needs fulfilment; I = Influence; E = Emotional connections.

In Obst and White's (2004) analyses, a single factor structure fit the data, although the revised four-factor model (identifying membership, influence, integration and fulfilment of needs, and shared emotional connections) constituted a better fit.

Although this Sense of Community Index has some strong psychometric properties (internal consistency ranged from $\alpha = .80$ to $\alpha = .84$), the questions are strongly biased towards geographic connections. While most communities are geographically connected, and it has been argued that social capital will be greater among proximally close communities due to the greater frequency of social interactions (Rutten, Westlund, & Boekema, 2010); some communities such as religious or other interest-based communities are connected by means other than physical proximity. Whether this measure can assess Sense of Community in communities bound by non-geographical ties is yet to be determined.

More recent attempts have focused on measuring social capital according to Putnam's theoretical distinctions. This approach seems to be a marked step forward in social capital measurement, as it has the potential to confirm or negate Putnam's viewpoint. For example, Western, Stimson, Baum, and van Gellecum (2005) adopted the formal/informal structures and norms conceptualisation. They used a 95-item scale which resulted in five factors of social capital. However, they then attempted to confirm their own expectations by combining the scale items into four groups that fit neatly into their proposed theoretical structure – informal structures, formal structures, informal norms, and formal norms. Unfortunately, Western et al. (2005) neglect to comment on the fact that a five-factor structure, rather than a four-factor structure, was actually the outcome of their analysis.

Even more recently, scales have been developed that follow Putnam's (2000) distinction between bonding and bridging social capital (e.g. Williams, 2006; Ellison, Steinfield, & Lampe, 2007). These measures have also attempted to move with the times, and allow for different types of relationships, such as those formed online, to contribute to social capital. Williams (2006) sought to distinguish between online and offline social capital. To do so, he produced separate scales for bonding and bridging social capital and changed the wording so as to apply the scales for online or offline relationships. The final 20 items and their factor loadings are shown in Table 3.

Table 3:

Internet Social Capital Scale question forms and factor loadings (reproduced from Williams, 2006)

	Online Version		Offline Version	
Item	Bonding (α=.90)	Bridging (α=.84)	Bonding (α=.86)	Bridging (α=.85)
Bonding subscale				
1. There are several people online/offline I trust to help solve my problems	.82		.75	
2. There is someone online/offline I can turn to for advice about making very important decisions	.83		.76	
3. There is no one online/offline that I feel comfortable talking to about intimate personal problems (reversed)	.67		.66	
4. When I feel lonely, there are several people online/offline I can talk to	.69	.50	.70	
5. If I needed an emergency loan of $500, I know someone online/offline I can turn to	.72		.75	
6. The people I interact with online/offline would put their reputation on the line for me	.74		.66	
7. The people I interact with online/offline would be good job references for me	.66		.55	
8. The people I interact with online/offline would share their last dollar with me	.70		.61	
9. I do not know people online/offline well enough to get them to do anything important (reversed)	.70		.60	
10. The people I interact with online/offline would help me fight an injustice	.66		.65	
Bridging subscale				
1. Interacting with people online/offline makes me interested in things that happen outside of my town		.66		.74
2. Interacting with people online/offline makes me want to try new things		.67		.70
3. Interacting with people online/offline makes me interested in what people unlike me are thinking		.61		.49
4. Talking with people online/offline makes me curious about other places in the world		.68		.69
5. Interacting with people online/offline makes me feel like part of a larger community		.65		.70
6. Interacting with people online/offline		.71		.77

Item	Online Version		Offline Version	
	Bonding (α=.90)	Bridging (α=.84)	Bonding (α=.86)	Bridging (α=.85)
makes me feel connected to the bigger picture				
7. Interacting with people online/offline reminds me that everyone in the world is connected		.61		.68
8. I am willing to spend time to support general online/offline community activities		.59		.48
9. Interacting with people online/offline gives me new people to talk to		.62		.63
10. Online/Offline, I come in contact with new people all the time		.58		.63
% Variance explained by factor	37.75	11.85	33.21	11.71

Notes: Extraction method: Principal Components. Rotation: Oblimin with Kaiser normalization. All questions are statements in the form of a 5-point "strongly agree to strongly disagree" Likert scale. Loadings > .490 are shown.

The two-factor bonding/bridging model fit the data well (online: NNFI = .85, GFI = .88, PR = .89, RMSEA = .08; offline: NNFI = .85, GFI = .90, PR = .89, RMSEA = .08). Only one item (item 4) loaded onto both the bonding and bridging factor for the online version, however it loaded only onto the bonding factor for the offline version. This is perhaps due to the greater availability of online friends; that is, if one is lonely and needs to talk to someone, they can easily see who is online for them to talk to, and it may be a close friend or an old acquaintance. Either way, it is a relief for loneliness. On the other hand, if one is lonely and wants to talk to someone it seems reasonable that they would only call upon those friends with which they have bonding social capital. Finally, reliabilities for both online and offline versions were strong, at least .84.

As indicated, the trend in social capital measurement has been to create new scales rather than trying to confirm or develop existing ones (O'Brien, Burdsal, & Molgaard, 2004; Macinko & Starfield, 2001). For this reason, the measurement scales so far used have contributed little to reducing confusion regarding the definition of social capital. It remains difficult to identify exactly what social capital is when researchers attempt to measure various indicators of the construct with little replication.

Concepts that have survived the theoretical war - trust, reciprocity and norms

Though many authors have attempted to define social capital according to different indicators, some consensus has been found in the literature. Bourdieu, Coleman and Putnam all agreed that social capital is a resource upon which individuals can draw upon when required. They all note that social capital consists of trust, reciprocity and norms (Winter, 2000). Moreover, while theorists have tried to measure each of these three components separately, it seems clear that without trust, neither reciprocity nor norms would follow. In support of this viewpoint, Glanville and Bienenstock (2009) argued that "social capital cannot exist without some level of trust" (p. 1513).

Trust

It is claimed that trust, like social capital, exists at both the individual and family level, and the wider societal level (Delhey & Newton, 2003; Flanagan, 2003). At the individual level, trust is thought to develop as a result of attachment relationships. Based on early experiences with parents and peers, individuals develop a disposition to being trustworthy and to trusting others. At the wider societal level, a sense of trust arises out of experiences with people in other social circles. In addition, values learnt from close relationships (e.g. loyalty, empathy, reliability) are generalised to relationships with strangers and form the foundation for a trusting relationship (Flanagan, 2003).

Trust is best defined as the belief that others will not deliberately do us harm, and will act with our best interests in mind (Newton, 2001; 2004; Mohseni & Lindstrom, 2007). By this definition, trusting another person or entity inherently involves an element of risk. When one trusts another with something of their own, whether it be personal information, an amount of money, or one's personal safety, the control is in the trustee's hands. The trustor hopes that the trustee will act in their best interests. Given the reciprocal nature of trust, however, there is always the possibility that one's faith will be misplaced, and their best interests neglected (Veenstra, 2002).

If the risks of trusting in others are so great, it is difficult to understand why anyone would trust in anyone else; humans are rational and can calculate the number of adverse outcomes that could potentially arise from trusting other people, so it seems odd to knowingly put oneself in such a vulnerable position (Veenstra, 2002). The logical explanation would suggest that the potential for benefiting from trusting others far outweighs the risks.

The benefits of trust and social capital

Some benefits can arise through mutual exchanges and reciprocity that occur between trusting individuals. When it comes to initiating an exchange, people will have to take a risk on another's trustworthiness (Cook, 2005). Their perception of trustworthiness in the other party may be based on an assessment of their 'likely' trustworthiness, which may be built upon gender, age, ethnicity, or any factor which can liken the two characters and be suggestive of similarity. Recently in the literature, there has been particular attention directed toward the idea that a common ethnicity forms the most basic foundation for perceptions of trustworthiness in others (Reynolds, 2010). With similarity comes the expectation that an act will be reciprocated (Bourdieu, 1986; Coleman, 1988).

When acts are reciprocated, more trust is created. Trust and reciprocation are both explicit in the creation and maintenance of norms. People give to charity, discourage crime, and obey traffic rules because they internalise the standards of living from the community to which they belong (Portes, 1998). People trust that others will follow the norms just as they do (Fukuyama, 1995; Onyx & Bullen, 2000). It is clear, then, that trust is the underlying feature that promotes both mutual exchanges and the construction of norms.

Trusting people are also thought to be more optimistic, feel a greater sense of control over the world, and be generally happier (Delhey & Newton, 2003; Uslaner, 1999). By contrast, less trusting people are more prone to anxiety and lower life satisfaction (Delhey & Newton, 2003). A "success and wellbeing theory" proposed by these authors suggests that those who are successful, maintaining high incomes and high standards of living, are more trusting than the less successful. It is a consistent finding that the poor are less trusting than the rich (Putnam, 2000; Patterson, 1999), and the common explanation offered is that

the poor cannot afford to risk trusting people. Wealthier people can afford to risk a potential loss to achieve a greater gain. It is clear, then, that trust goes hand in hand with a more positive outlook and a better quality of life.

Potential drawbacks of trust and social capital

While those who trust clearly stand to gain from placing their faith in trustworthy hands, it has also been suggested that those who trust too willingly are gullible and lacking in social intelligence (Yamagishi, Kikuchi, & Kosugi, 1999). These authors suggest that trusting in others is only beneficial so long as the trustor is smart enough to know who can be trusted. If individuals have a general disposition to trusting others in general, they are more vulnerable to being taken advantage of by the few who are untrustworthy (Anh & Esarey, 2008). Thus, there may be benefits to being less trusting; that is, being more prudent and selective in whom one places their trust is probably more advantageous in the long run than blindly trusting everyone.

At the societal level, some authors (e.g. Edelman, Bresnen, Newell, Scarbrough, & Swan, 2004; Coleman, 1988; Baum, 1999) have noted that there are also potential drawbacks of exclusive, tight-knit communities. These drawbacks arise because communities that are tightly bonded tend to reinforce in-group norms and beliefs, which can encourage distrust of outsiders (Baum, 1999). Strong in-group bonds can enhance group identity and highlight similarities between group members, though these same in-group bonds also highlight differences between in-group and out-group members, which can potentially lead to the exclusion and discrimination of others who do not conform to the group norms.

It has also been suggested that, while social capital may be beneficial for many members of society, some may be disadvantaged by it (see Coleman, 1988; Moore, Daniel, Gauvin, & Dube, 2009). Members of a community who disagree with the group norms may feel restricted by the strong bonds that tie them to a group whose norms do not match their individual wishes. Thus, Coleman (1988) acknowledges that while social capital facilitates certain actions, it constrains others (Whitley & McKenzie, 2005). The more group members band together and

encourage solidarity, the less freedom there is to deviate from the group and challenge the system.

In addition, Moore et al. (2009) report that individuals from lower socio-economic backgrounds have fewer bridging relationships, or weak ties. As weak ties serve the important function of facilitating the sharing of information beyond one's immediate social circle, lower socio-economic individuals are further marginalised as they lack the resources and access to information that are readily available to those of higher socio-economic status. Therefore, although social capital may be an advantage for those of higher social status, the lack of it may simultaneously be a disadvantage for those of lower social status.

It is evident that trust has its advantages and disadvantages, both for individuals and communities. It is assumed that community trust is created through interpersonal trust which is generalised to other relationships. Accordingly, communities high in social capital will have many trusting individuals. For the current study, general trust will be measured using the commonly referenced question from the General Social Survey: "Generally speaking, would you say that most people can be trusted?" For the purposes of the present study, however, the question will be reworded so that respondents can indicate the level that they agree or disagree with the statement "Most people can be trusted". Selected items from various questionnaires that assess trust at both interpersonal and community levels will also be included.

A summary of social capital and its relationship to subjective wellbeing

Social capital comprises trust, reciprocity and norms, though without a basic level of trust, reciprocity and norms cannot follow, and social capital cannot exist. Social capital, therefore, must be preceded by a basic level of trust. It is, however, propagated by acts of reciprocity, which reinforce the trust in a social exchange and increase the confidence that future trust will not be misplaced.

The relationship between social capital and wellbeing has been documented, although it is inherently complicated. By nature, social capital is intertwined with higher income and higher education, which are both predictors of wellbeing. Further, Ravanera (2007) found that men who were married or living with a

partner possessed higher social capital than those in other types of relationships. Marriage is also a demographic predictor of wellbeing (Cummins et al., 2009). Trust is associated with having close personal relationships and an increased perception of social support, which are also recognised predictors of wellbeing (Tokuda, Jimba, Yanai, Fujii, & Inoguchi, 2008). Therefore, although some studies have noted that trust and social capital (and in particular, bridging social capital) can predict wellbeing (e.g. Sum, Mathews, Pourghasem, & Hughes, 2008; Growiec & Growiec, 2010), they neglect to acknowledge the shared association between social capital and other demographic indicators of wellbeing. The current study will therefore explore whether social capital is able to add anything extra to the explanation of SWB over what is already understood according to homeostatic theory.

This study also provides an opportunity to explore social capital within a unique community. As previously noted, ethnicity has recently been proposed as one of the strongest elements that binds people (Reynolds, 2010; Zhou, 2005). One author has commented that social relations and networks within an ethnic group can be so powerful that they transcend "class and geographical boundaries" (Zhou, p. 139). The Jewish population of Australia, as will be discussed in the next chapter, represents a group of individuals united not only by ethnic ties, but also by a common culture, race, religion and tradition. With over 4000 years of shared history, they thus provide a prime sample within which to investigate the concept of social capital.

CHAPTER 3: AUSTRALIAN JEWS

Jews and Judaism

The history of the Jewish people dates back approximately 4000 years, beginning with the biblical patriarch Abraham. Judaism is the religion of Jewish people, though while anyone who practises Judaism is a Jew, not all Jews adhere to the laws of Judaism (Whitfield, 2002). Traditionally, the core tenet of Judaism holds that there is a single, omnipotent, and ever-present God who created the world. It is Jewish belief that God chose the Israelites to be the beneficiaries of the Torah (the laws and commandments), which was given to Moses on Mount Sinai. Practising Judaism involves abiding by God's laws and commandments, and studying the various interpretations of and rabbinical commentaries concerning these sacred texts and traditions.

Who is a Jew?

According to Jewish religious law, a person is a Jew if he was born to a Jewish mother or converted to Judaism according to the prescribed procedures. This view has been challenged by increasing rates of intermarriage resulting in children of Jewish fathers (but non-Jewish mothers) still being raised according to Jewish laws and traditions. These people may report that they are of Jewish faith, though Jewish law dictates that they are not. For the purposes of this study, a Jew will be considered to be a Jew according to the traditional Jewish guidelines; that is, if their mother is Jewish or if they have converted to Judaism in the prescribed way. This will enable more accurate comparisons with previous studies that have adhered to this ruling.

Jewish denominations

Although the fundamentals of Judaism remain stable, varying interpretations of the sacred texts and traditions by different rabbinical scholars have led to a number of denominations of Judaism. These denominations reflect different ways of Jewish expression, and form the basis of a Jewish identity (Hartman & Hartman, 1999). At the ethnic level, Jews have traditionally been split as either Ashkenazi or Sephardic (see below). At the religious level, the three

most common denominations are Orthodox, Traditional and Reform Judaism. As a result of the ethnic and religious denominations within Judaism, a comprehensive Jewish identity is best understood as having both ethnic and religious elements (Rutland, 2005).

Ethnic Jewish denominations - Ashkenazi and Sephardi

The term 'Ashkenazi' is the old Hebrew term for the area that later became known as Germany. 'Sephardic' is the Hebrew term for the modern day Spain. Geographically, today's Ashkenazi Jews are those whose ethnic origins are located in Central and Eastern Europe (including Germany, Austria and Poland). Sephardic Jews have ethnic origins mainly in Spain and Portugal. Due to their ethnic origins, and assimilation with the majority culture over the years, Ashkenazi and Sephardic Jews developed different languages and variations to customs and prayers.

Ashkenazi Jews traditionally spoke Yiddish, a combination of German and Hebrew. Sephardic Jews developed their own language – Ladino – a mix of Spanish and Hebrew. Both groups have retained particular customs, specifically related to food, prayer and traditions on Jewish holidays. For example, on Passover (a Jewish holiday that involves specific dietary laws for eight days to remember the Jews exodus from slavery in Egypt), Sephardic Jews will permit eating rice, while Ashkenazi custom forbids it. Although Jewish prayers are the same for Ashkenazi and Sephardic Jews, they are sung to different tunes, and some prayers are repeated in Sephardic daily prayers that are only recited weekly by Ashkenazis (Schoenberg, 2010).

Religious denominations - Orthodox, Reform, and Conservative

Orthodox Jews adhere to a code of laws termed the *Halacha*. This code of laws comprises a collection of Jewish texts including the Torah, the commandments, and rabbinic commentary, which guide everyday Jewish life. Still, even within Orthodoxy there are divisions. Ultra-Orthodox Jews, considered the most religious, strictly observe all the laws and religious practices of Judaism. Many ultra-Orthodox families refuse to have television or internet in their home and associate largely only with each other, believing that modern advances and

modern life threaten the future existence of Judaism. Modern Orthodox Jews, by contrast, sustain a lifestyle that is bound by Jewish law and customs, but also positively value interactions with the wider society (Hartman & Hartman, 1999). They are typically less religious than ultra-Orthodox Jews, but maintain a strong sense of Zionism and are staunch supporters of the State of Israel.

Reform Judaism grew out of the European Enlightenment movement of the 18th century. The Reform aimed to make Judaism compatible with life in the modern, secular world (Hartman & Hartman, 1999). They adapted Jewish laws to non-literal, more progressive alternatives. For example, Orthodox Judaism forbids the driving of cars or usage of electricity on the Sabbath because these acts are said to defy God's commandment to 'rest'. Reform Judaism holds that 'rest' in the sense that God meant, is not equivalent to modern-day 'rest'. Reform Jews use electricity and operate machinery on the Sabbath and even drive to the synagogue to pray on holy days. Reform, or Liberal Judaism as it is commonly referred to in Australia, has a large following in the United States, where almost half of all Jews align with the Reform movement.

Traditional, or Conservative Judaism, emerged as a halfway point between Orthodox and Reform. Like the Orthodox, Conservative Judaism holds that Judaism, the Jewish community, and Jewish life are all intertwined, and that there is no Jew without Judaism. However, while in principle they maintain a traditional approach to religious adherence, some revisions were made to synthesise with modern-day life (Hartman & Hartman, 1999).

Jews worldwide

Jewish people are prominent in many countries around the world, particularly in Israel, the Jewish homeland since 1948. America, Canada, the UK and France are also home to large Jewish populations. Almost everywhere they have found themselves, Jewish populations have thrived, and Jews have flourished in a range of professional fields. The names Albert Einstein, Sigmund Freud, Ralph Lauren, Marcel Marceau, Bob Dylan, David Copperfield, Stephen Spielberg, Jerry Seinfeld and Mark Zuckerberg give some credit to the extent of Jewish diversity.

The Australian Jewish population, in comparison, is both unique and remarkable. Australia was the first country in the world whose founding members included Jews (Rutland, 2005). Australian Jews have been fortunate to live in relative peace and harmony alongside their neighbours, with comparatively little fear of anti-Semitism. Today's Australian Jewish population includes a diverse, yet connected array of Ashkenazi and Sephardi Jews, who consider themselves Orthodox, Conservative, Reform, or none of these. Jewish people have played a large part in Australian history, with some notable figures including Sir John Monash, and Governor Generals Sir Zelman Cowen and Sir Isaac Isaacs.

The first Australian Jews

The 1800 prisoners who initially came to Australia from England on the First Fleet in January 1788 included approximately a dozen Jews (Rutland, 2005; Rubinstein, 1986). During the 1800s, relatively small numbers of Jews immigrated to Australia, as Jewish communities were thriving in Europe. Those in Australia had little chance to practise their faith, as they arrived without any ritual objects such as prayer books or Torah scrolls. Further, the extreme shortage of Jewish women in Australia forced most of the early Jewish male settlers to marry non-Jewish women, threatening the continuity of Australian Jewry, as Jewish law dictates that religion stems from a child's mother (Rutland, 2005). It was only with the arrival of free settlers in the 1820s that a Jewish community was able to develop. In 1832, the first Jewish marriage ceremony was conducted in Sydney, and an area was consecrated to become a Jewish burial ground (Rutland, 2005). Despite small numbers, the first Jewish synagogue was established in Sydney in 1844 (Rutland, 1997).

The 1840s to 1930s

The Jewish community spread to Melbourne in the 1840s and the Victorian gold-rush of the 1850s saw the arrival of more Jews, as the Victorian population as a whole increased dramatically. In 1848, there were about 200 Jews living in Australia; by 1861 this number increased to 3000 (Rutland, 1997). Following the gold-rush era, Jews began to reach higher social classes. Instead of being hawkers

or unskilled labourers, Jewish people gained privilege as hotel owners and skilled tradesmen.

Post World War I and World War II

During the late 19th and early 20th Century, immigration policies in Australia, including the White Australia Policy, incited xenophobic fear in the nation and restricted the growth of Jewish communities. With Hitler rising to power in Germany in the 1930s, Australia stood by its policies and denied entry to many Jews trying to escape from Europe. In 1938, the Australian government declared that it was prepared to accept 15,000 Jewish refugees over the next three years (Rutland, 1985). With the outbreak of World War II, 200,000 application forms for emigration were distributed to German Jews (Kwiet, 2001). However, before the lengthy and time-consuming procedures for immigration into Australia could be finalised, the war had intensified to the point where the strict Nazi regime negated all possibility of Jewish emigration.

Post 1945

Following the end of World War II and the Nazi Holocaust, Australia was sympathetic towards the plight of the Jewish people in Europe and opened its gates in 1947 to approximately 17,500 survivors (Kwiet, 2001). Without government funding, the Jewish community were responsible for organising accommodation and employment for new arrivals, the majority of whom were orphaned or alone (Rutland, 2005). In the decade following, more immigrants made their way to Australia from Displaced Persons Camps. Proportionally, Australia thus welcomed more Holocaust victims than any other country except for Israel (Kwiet, 2001).

Today

In the 2006 census, almost 89,000 Australians identified themselves as Jews (Australian Bureau of Statistics, 2007). However, this number is believed to be an underestimation of the exact number of Jewish Australians, as many non-practising Jews may prefer not to disclose their religion in the national census because they identify only weakly with it. In addition, considering that a large proportion of the Jewish community includes Holocaust survivors and their

families, many might understandably decline to list their religion for fear that such information may be misused. A more precise estimate of Australia's Jewish population states that there are approximately 120,000 Jews (Kwiet, 2001). Jewish Australians thus comprise less than one percent of the Australian population.

Profile of today's Jewish community

Demographically, the most recent and thorough analysis of the Australian Jewish population was undertaken by John Goldlust (in Levey & Mendes, 2005) in a breakdown of Census data from 2001. Here, Goldlust accessed data from those who had listed "Jewish" as their religion on the national census. Of course, this study neglects those who did not identify in the Census as Jewish, including those who may consider "Jewish" to be their culture or ethnic heritage, rather than their 'religion'.

Goldlust's analysis revealed that over 80% of Australian Jews lived in Melbourne or Sydney, with the remainder dispersed throughout the other states and territories (in Levey & Mendes, 2005). Between states, the nature of the Jewish community varies, reflecting the cultures of the different countries from which Jews immigrated to Australia. For example, following World War II, most of the Jews who immigrated to Sydney were from Western and Central Europe. These Jews tended to be more secular than their Eastern European counterparts, who largely settled in Melbourne. As a result of their cultural heritage, Melbournian Jews tended to set up homes close together, inhabiting mostly South-Eastern Melbourne suburbs such as Caulfield, Toorak, Elsternwick and St Kilda. The Sydney Jewish community is more widespread, covering Northern and Eastern suburbs. The Perth Jewish community has become a vibrant haven for immigrants from South Africa, who brought with them valued religious and professional skills (Rutland, 2005).

A less recent survey was conducted by Goldlust in 1993 on Melbournian Jews. These data revealed that 6% of respondents confirmed their religious status as "strictly orthodox", 33% stated they were "traditionally religious" and 15% were "Reform/Liberal". These data are believed to be representative of the general Australian Jewish population, though an alternate estimation suggests that

Liberal Jews account for about 20% of the Jewish population (Graff, Turnbull, Baskin, Rubinstein, & Freeman, 2005).

Approximately 80% of the world's Jewish population is Ashkenazi (Elazar, 1992). In Australia, an even larger majority is Ashkenazi, due to the majority of Holocaust survivors being of Central and Eastern European origin. Although Australian Jews may recognise that they are of Ashkenazi or Sephardic origins, the small Sephardic community live side by side with Ashkenazis. Rather than identifying as Ashkenazi or Sephardic Jews, the modern-day tendency is to identify through a collective 'Jewish identity' (Gale, 1997).

Today, there exist approximately 81 synagogues and 18 Jewish day-schools in Australia. Over fifty percent of Jewish students are enrolled in Jewish schools. Jewish schools consistently rank very highly among the top schools in each state in terms of final year results and subsequent applications for tertiary studies (Victorian Curriculum and Assessment Authority, 2007). Australian Jewry is regarded as "highly affluent… with a disproportionate number of ultra-wealthy individuals and families" (Rubinstein, 2004, p. 184). Certainly, there are a disproportionate number of Jewish individuals who have succeeded in the political, business, legal and medical professions.

Although notable, the phenomenon of Jewish achievement is not a rare feat of Australian Jews, with American, British and Canadian Jews also extremely prominent in the media, art and medical fields. A remarkable fact is that 23% of all Nobel Prize winners have been Jewish, an outstanding feat when Jews worldwide constitute 0.25% of the world's population. Even more remarkable is that since the Holocaust wiped out a third of the Jewish population, Jews have still won 29% of all Nobel Prizes awarded (Skolnik, 2007).

Despite the strong affluence of the Jewish community, there still exists evidence of social disadvantage. Szwarc (2004), in her detailed study of Victorian Jewry, found that 29% of Victorian Jewish households earn less than $600 a week, and hence could be considered to fall under the category of "near poor". Notwithstanding, it has also been noted that there are unwritten social expectations within the Jewish community that promote material possessions including nice cars, homes, clothes, and overseas holidays, as well as general

spending capacity (Mendes, 2006). Research in the USA has shown that Jewish people living below the low income threshold are consistently less likely to affiliate with Jewish institutions and partake in communal programs. As a result, poorer Jews often find themselves socially marginalised, and excluded from participation (Goldlust, 2004).

A history of Anti-Semitism

Australia is a country that prides itself on its tolerance and acceptance of multiculturalism. However, despite Australia's reputation as a relatively safe and highly multi-racial society, there are increasing numbers of racial attacks being recorded (Jones, 2008). In particular, an increase in the number of incidents directed at Jewish Australians in the years 2007-2008 was reported, the highest level on record since the database was established in 1989 (Jones, 2008). The Stephen Roth Institute at Tel-Aviv University (2009) identified a number of fascist and neo-Nazi groups in Australia which are explicitly anti-Semitic. These groups encourage denial of the Holocaust, the perpetuation of Jewish conspiracy theories, and anti-Semitic attacks including distributing hate mail, vandalism of Jewish homes, schools and synagogues, harassment and intimidation.

The history of the Jewish people is plagued by anti-Semitism and attempted genocide, and has not discriminated amongst the different Jewish denominations. Ashkenazi Jews were expelled from France in the 12th Century, were forced to live apart from the rest of society in ghettos in 15th and 16th century Germany, and in Poland were subject to pogroms (anti-Jewish riots) in the 17th and 18th Centuries.

Sephardic Jews were prospering in Christian-ruled Spain until the Spanish monarchs, King Ferdinand and Queen Isabella, were convinced by the General Inquisitor of Spain that the Jewish community posed a threat to the continuation of Christianity. In 1492, the King and Queen ordered that all Jews who refused to convert to Christianity would be expelled. Many Sephardic Jews resettled in Portugal, although this was short-lived as Jews were then expelled from Portugal in 1497.

Anti-Jewish sentiment reached its peak during World War II with the Nazi Holocaust. This resulted in the systematic murder of approximately six million Jews, Ashkenazi and Sephardic alike. In some places, such as Holland, Sephardic Jews were given some preferential treatment as they had previously been regarded in high esteem, however this 'preference' usually only surmounted in them being slaughtered last (Weiner, 2010).

The impact of the Holocaust

The Holocaust was the most extreme expression of racism and pure intolerance the world has ever seen. It involved the attempted genocide and systematic extermination of the entire Jewish population of Europe during World War II. Gypsies, homosexuals, disabled persons, and other minority groups who did not conform to the glorified Aryan race were also systematically slaughtered. It is generally approximated that six million Jews were killed by the Nazis during the Holocaust. Many others died in the years immediately following the end of the war, as their bodies had undergone severe malnutrition and other extreme physical injuries from which, despite liberation and subsequent hospitalisation, they were unable to recover. It is almost impossible to believe that a trauma of such incomprehensible nature could have occurred only 65 years ago. Yet, the effects of the Holocaust for survivors, their children and even their grandchildren still linger today.

Definition of a Holocaust survivor

There has been some inconsistency in previous studies regarding who is considered to be a survivor of the Holocaust. Some studies have included in their definition that the term Holocaust survivor refers only to European-born Jews who endured the war (e.g. Sorscher & Cohen, 1997; Shmotkin & Lomranz, 1998). This definition neglects Jews who were born outside of Europe but may have been in Europe during the war, and also the many other non-Jews who suffered at the hands of the Nazis. As such, it is not an adequate description of a Holocaust survivor. Other studies define a Holocaust survivor by the amount of trauma they experienced, that is, whether they were in concentration camps or ghettos, and specifically targeted for persecution (e.g. Van Ijzendoorn, Bakermans-Kranenburg, & Sagi-Schwartz, 2003; Baider, Goldzweig, Ever-Hadani, & Peretz,

2006). These definitions ignore those who hid or fled from the Nazis and survived the Holocaust through other means. Other definitions place broad time periods within which the prejudice against survivors occurred, for example, the United States Holocaust Museum (USHMM, 2010) specifies that a survivor is an individual who was targeted for discrimination during the years 1933-1945. Generally, the term Holocaust refers to a period within World War II (1939-1945), and the USHMM definition would include as 'survivors' many who managed to escape the Nazi regime in the years prior to WWII without being subject to the extreme trauma of those who remained in Europe.

For the current study, a participant will be defined as a Holocaust survivor according to the following definition: "A Holocaust survivor is defined as a Jew who lived at any time within a Nazi-occupied or Nazi- ruled European country during World War II". In order to participate in this study, participants must be Jewish anyway, so the distinction that a Holocaust survivor is "a Jew" will not exclude any potential participants. Further, this definition does not consider how the person managed to survive the war years. It is considered that if a Jewish person found themselves during WWII in a Nazi-occupied or Nazi-ruled country, they would have had reason to fear for their lives, and would have been exposed in one way or another to some form of trauma. This definition also specifies a time (during WWII) and a place (European country) for the Holocaust experience, and is therefore consistent with the definition of a Holocaust survivor given by Yad Vashem, the Holocaust museum in Jerusalem, which contains the largest repository of information about the Holocaust (Shoah Resource Centre, 2003).

Impact of the Holocaust on survivors

Individuals who survived the Holocaust period in World War II had been subject to an array of traumatic events, including forced labour, starvation, physical and sexual assault, witnessing mass murders, and separation from their parents and family. Their trauma, however, did not end with liberation from concentration camps and the end of the war. In the years immediately following the war, most survivors found themselves orphaned and alone, and left with a barrage of physical and emotional wounds, some of which would never heal. Many moved to new countries with no money, no skills, poor health, and little (if

any) family. For those who were children during the war, they survived with little education, and their development, both physical and emotional, had been stunted by their Holocaust experiences.

As they aged, the effect of their Holocaust experience on survivors' physical health took its toll. Their exposure to carcinogenic substances in concentration camps and harsh sun rays as they endured forced labour is likely the cause of the increased incidence of all-site and specific cancers found among Holocaust survivors (including breast, colorectal, prostate, and lung cancers) compared to the general population (Keinan-Boker, Vin-Raviv, Liphshitz, Linn, & Barchana, 2009). In addition, compared to other immigrants living in the U.S. or Israel, Holocaust survivors reported more digestive problems, and a greater incidence of arthritis (Kahana, Harel, & Kahana, 2005). For the survivors living in the U.S., skeletal and circulatory systems were also problematic and they reported a greater incidence of diabetes and stomach ulcers. For survivors living in Israel, problems were identified in regards to eyesight, the cardiovascular system, and liver and kidney disease (Kahana, Harel, & Kahana, 2005).

Despite their ordeal and continued stress, many survivors managed to transfer their intense emotion and despair into motivation to build new lives, new families, and new hope. The vast majority of Holocaust survivors appear objectively to have adjusted well to instrumental social aspects of life; Kuch and Cox (1992) found that of their 124 Holocaust survivors studied, 80% were married and 83% had children, while Robinson, Rapaport-Bar-Sever and Rapaport (1994) found that of 103 Holocaust survivors living in Israel, 85% had married and 95% had children. Indeed, studies to date indicate that Holocaust survivors represent an extremely resilient, yet specifically vulnerable group. Part of this vulnerability is the long-lasting psychological effects.

A particularly interesting finding in this regard involves the extreme prevalence of sleep disorders. Despite objective normality, when many survivors are left alone with their thoughts, the Holocaust continues to haunt them, provoking nightmares, insomnia and severe distress (Rosen, Reynolds, Yeager, Houck, & Hurwitz, 1991; Kuch & Cox, 1992). Disturbances of sleep indicate the underlying challenge survivors face to integrate what they experienced into a

rational, coherent life story (Krystal, 1981; Sadavoy, 1997). It seems clear that the outward happiness and apparent psychosocial adjustment mask long-lasting, unresolved effects within.

The survivor syndrome

The specific effects of the Holocaust on survivors comprise a complex array of clinical symptoms termed the "Survivor Syndrome" by Niederland (1968; 1981). The major manifestations include intense anxiety, disturbances of cognition and memory, chronic depressive states, tendency to isolation and withdrawal, psychotic and psychosis-like mental images, alterations of personal identity, psychosomatic conditions, and guilt that they survived in place of others who did not (Niederland, 1968; Kryinska & Lester, 2006). It should be noted, however, that the syndrome does not apply to all survivors; certainly, many emerged from the Holocaust with a new appreciation and zest for life (Robinson et al., 1990).

One of the key features of the survivor syndrome is the prevalence of Post-Traumatic Stress Disorder (PTSD). In fact, there is some suggestion that it was cases of the survivor syndrome following the Holocaust and later, the Vietnam War, that led the American Psychiatric Association to introduce the term post-traumatic stress disorder in 1980 (Krysinska & Lester, 2006). Studies concerning PTSD in Holocaust survivors reveal that many continue to suffer from symptoms of avoidance and intrusion of Holocaust-related memories years after the end of the war (Landau & Litwin, 2000; Collins, Burazeri, Gofin, & Kark, 2004; Prot, 2010). Some studies have reported a greater prevalence of PTSD symptoms for survivors who experienced particular types of trauma. For example, Clarke et al. (2006) note that survivors who underwent the Holocaust period in concentration camps, work camps, ghettos, or in hiding, were more likely to suffer from symptoms of PTSD than other survivors, and a control group of non-survivors. Similarly, Holocaust survivors who had been in Auschwitz have been found to express significantly more symptoms of PTSD than survivors who had not been in concentration camps (Kuch & Cox, 1992).

Although PTSD is classified along the two dimensions of intrusion and avoidance, there is speculation that only the intrusive aspect of PTSD affects

survivors (Letzter-Pouw & Werner, 2005). In the case of Holocaust survivors, intrusion refers to the daily interruption of Holocaust-related thoughts and memories when survivors don't mean to think about it. Intrusion involves a constant disruption of memories of the event in the absence of conscious thought. On the other hand, avoidance involves conscious evasion of Holocaust-related ideas or feelings. For example, survivors exhibiting avoidant behaviour consciously stay away from anything that reminds them of the war so as to block it from their memory. The finding that intrusive aspects of PTSD are found in survivors but avoidant behaviours are less prominent likely reflects a conscious effort on the part of survivors to not forget what happened to them. They perhaps do not want to consciously ignore their Holocaust experiences for fear that history may repeat itself if they don't acknowledge it appropriately. This conscious effort to remember what happened to them may actually be worse for the survivors' psychological wellbeing than engaging in avoidant behaviour. The desire not to avoid reminders of the Holocaust might perpetuate traumatic feelings and hinder survivors' ability to effectively 'move on'.

More evidence in support of the idea that Holocaust survivors may not be able to get past their war-time experiences comes from studies that reveal that Holocaust survivors' fare worse than non-survivor comparison groups when faced with trauma in later life, such as cancer (Baider & Sarell, 1984; Baider, Peretz, & DeNour, 1992; 1993; Peretz, Baider, Ever-Hadani, & DeNour, 1994; Shmotkin & Barilan, 2002). The trauma encountered in later life is thought to reactivate memories from concentration camps and the horror experienced during the war. However, despite them experiencing greater psychological distress, Holocaust survivors showed no differences in their psychosocial adjustment to their illness compared to non-survivor cancer patients (Baider, Peretz, & DeNour, 1992). This indicates that although survivors are affected by their early experiences later in life, they are also equipped with the coping and adjustment tools to deal with such trauma.

Similarly, Hantman and Solomon (2007) recently established that although survivors express more PTSD symptoms than controls who had not experienced the Holocaust, their adjustment and coping when faced with a cancer diagnosis was no different. These findings echoed those of Harel, Kahana, and Kahana

(1988) who revealed that survivors in their study scored higher than members of a comparison group on all three coping subscales they assessed. This finding has been explained by the suggestion that Holocaust survivors represent a hardy and resilient group, characterised by inner strength, optimism and determination (Hantman & Solomon, 2007). Just as these characteristics may have helped them to survive the trauma of the Holocaust, they may also assist as coping mechanisms in the case of other adverse events.

Affect and wellbeing in Holocaust survivors

The physical and psychological wounds that pervade the lives of Holocaust survivors point to an overall lower quality of life for survivors as they age, suggesting that they do indeed feel the effects of their early experiences well into later life. Compared to groups of non-victims, Holocaust survivors have been found to report greater cumulative life distress, lower positive affect, higher negative affect, and lower subjective wellbeing (Shmotkin, Blumstein, & Modan, 2003; Shmotkin & Lomranz, 1998; Ben-Zur & Zimmerman, 2005; Shrira & Shmotkin, 2008).

By contrast, Landau and Litwin (2000) compared Holocaust survivors who were 75 years and older to a comparison group of similar age and sociocultural background. These authors found no differences on ratings of life satisfaction, affect and depression across their sample. They did, however, note that a much greater percentage of male survivors reported symptoms of PTSD than non-survivor males, and that female survivors reported more health-related difficulties than non-survivor females. In the Landau and Litwin (2000) study, participants were recruited only if they were living in community residences. The sample therefore benefited from large social networks and strong social support, which could aid in their resistance to depression and lowered life satisfaction.

The findings of Landau and Litwin's study might reflect the complex integration of symptoms from which Holocaust survivors suffer. That is, even if social support can 'save' survivors from lowered life satisfaction and depression, survivors are still vulnerable to PTSD and lower self-rated health (Landau & Litwin, 2000). The evidence for the continued suffering of survivors is overwhelming, and encompasses a wide variety of wellbeing-related variables,

including survivors reporting higher anxiety, higher scores on anger/hostility measures, lower scores for physical, psychological and social domains of quality of life, greater emotional distress, and greater suicidal ideation (Amir & Lev-Wiesel, 2001; Amir & Lev-Wiesel, 2003; Collins, Burazeri, Gofin, & Kark, 2004; Clarke et al., 2006; Landau & Litwin, 2000; Joffe, Brodaty, Luscombe, & Ehrlich, 2003).

In discussing the lasting trauma of the Holocaust, Garland (1993) went so far as to claim that the horrific experiences of the concentration camps destroyed survivors' belief in the possibility of anything good. As such, she asserted that what was lost for survivors was the notion of basic trust in anyone around them. Though a firm declaration, this account paints a negative picture of survivors and stands against the convincing evidence that survivors have managed to lead productive and fulfilling lives. Even despite their mistrust and other psychosocial impairments, the ability of survivors to adjust and cope with ordinary life stands testimony to the strength of their characters.

As survivors become older and fewer live to tell their stories, research has turned to investigating the possibility that the effects may have been transferred to their children. About 25 years after the end of the Holocaust, it became apparent that there might be concerns for the children of survivors, even though they had not experienced the Holocaust themselves. The term 'intergenerational transmission of trauma' was adopted to describe the phenomenon by which children of survivors came to be affected by their parents' experiences during and after the war.

Children of Holocaust survivors – the second generation

One way in which children of survivors might be affected is attributed to the survivors' behaviour as parents. In the years immediately following the war, many survivors attempted to replace their lost loved ones by getting married and starting a new family as soon as they could. Survivors were alone, and often paired up for no other reason than that they both simply had nobody else. Many women became pregnant in Displaced Persons camps as soon as they were physically able to do so (Danieli, 1982). Not only were these survivors looking for something to replace their lost family members, and trying to create something

that might give life a meaning and a purpose, but they aimed to recreate quickly as a symbol of victory over the Nazis. It was almost inevitable that survivors would name their new offspring after lost relatives, imbuing in them from birth a sense that they were a compensatory figure for those who were killed (Danieli, 1982). For some, this led to a strong need to achieve academically and professionally so as to make up for what their parents lost during the war and to honour the memory of their namesake.

Many studies have used attachment perspectives to explain how the trauma of the Holocaust has been passed down to the second generation (e.g. Bar-On et al., 1998). Having had their children after the loss of all or most of their family, survivors as parents became intensely overprotective (Danieli, 1982). However, they were also overly warm and caring, instilling in their children a strong sense of self-worth, while at the same time impeding their independence and creativity. The only psychologically-based study on children of Holocaust survivors in Australia suggested that daughters of female survivors did perceive their mothers as being more protective than others, though not at the cost of intimacy (Halik, Rosenthal, & Pattison, 1990). Intense overprotection can hinder a child's development of their sense of proficiency over their world (Thomas, 2004). Overprotective parents instil in their child the idea that the world is a fearful place, from which they need to be protected. These children can then fail to develop necessary coping skills, which can result in lower perceptions of self-worth and greater depressive symptoms (Thomas, 2004; Bowlby, 1982; Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990; Kobak, Sudler, & Gamble, 1991; Kenny, 1994).

Besides the attachment viewpoint, others have suggested that individuals who come into contact with traumatised individuals may become traumatised themselves (Krysinska & Lester, 2006). Studies have noted that children of survivors may be particularly vulnerable to symptoms of PTSD (Kellerman, 2001a; Solomon, Kotler, & Mikulincer, 1988; Yehuda, Halligan, & Bierer, 2001). Further, other effects of the Holocaust on the second generation relate to disturbances of affect, which have been observed in both clinical and non-clinical samples (Kellerman, 1999; Gottschalk, 2003).

Still other differences that have been noted between children of Holocaust survivors and Jewish children of non-survivors refer to identity. For children of survivors, the fact that their parents were persecuted specifically because they were Jewish may highlight the salience of this aspect of their identity. This phenomenon has been found to occur in Canadian and Australian samples. In Canada, Russell, Plotkin, and Heapy (1985) found that non-clinical children of survivors could be discriminated from their control-group comparisons by their increased "Holocaust-induced Jewish identity" (pg. 572). In their Australian study, Halik, Rosenthal, and Pattison (1990) also found evidence for a stronger sense of Jewish identity in a group of daughters of Holocaust survivors compared to controls. By contrast, Sorscher and Cohen (1997) found that ethnic identity did not differ between children of Holocaust survivors and children of other Jews in America, but that Holocaust-related ideation was greater in children of survivors. Measures of Jewish identity varied between each study, which may likely be the cause of the inconsistent findings. The current study will attempt to discover what constitutes Jewish identity so as to establish a solid measure of the construct, and will in turn explore the Jewish identity of Australian Jews.

Clinical versus non-clinical samples

While there has been much research in support of such intergenerational transmission of trauma, a meta-analysis of several studies concluded that effects were only evident in clinical samples (van Ijzendoorn, Bakermans-Kranenburg, & Sagi-Schwartz, 2003). Thus, rather than the transmission of trauma being a universal and unavoidable outcome of being parented by a Holocaust survivor, the authors claimed that it only became an issue when children of survivors were subjected to other serious stressors, such as psychological or physical illnesses.

Similarly, a review of 35 studies comparing offspring of Holocaust survivors to controls by Kellerman (2001b) confirmed that signs of psychopathology were only increased in clinical populations. He suggested that rather than persisting to look at psychopathology, offspring of survivors who are at risk could be identified by other characteristics. These include children who were born in the years immediately after the end of the war, children who were

the only or first-born, and children who had both parents who were survivors (Kellerman, 2001b).

Noting the emphasis on psychopathology in children of survivors, one study chose to focus on growth-enhancing effects of the Holocaust for the second generation (Russell, Plotkin, & Heapy, 1985). In this non-clinical sample, children of survivors were more altruistic and more motivated to succeed than their children of non-survivor counterparts. These authors revealed that children of survivors felt more compelled to help others, and felt strong admiration for their parents who had survived the Holocaust and told stories of their tenacity, resourcefulness and acts of heroism during the war.

In summary, clear differences have emerged between children of survivors and others along many variables. Theory from attachment perspectives and the potential for transmission of PTSD support the idea that an intergenerational transmission of trauma does exist. Whether it manifests itself in the second generation as pathological or growth-enhancing is less clear, and will be explored in the current study. As research into the effects of the Holocaust on the second generation continues, even more recently studies have turned to looking at the grandchildren of survivors, the 'third generation'.

Grandchildren of Holocaust survivors – the third generation

For obvious reasons, there are fewer published studies of third generation Holocaust survivors as there are for the second generation. There is some doubt as to whether there are any effects of the Holocaust for the grandchildren of survivors, and a recent series of meta-analyses of 13 non-clinical samples by Sagi-Schwartz, van Ijzendoorn, and Bakermans-Kranenburg (2008) revealed no evidence of what they called 'tertiary traumatisation', that is, traumatisation down two generations following an event.

Despite their revelation, the authors note that, due to the need for statistical power in their analyses, important findings from particular studies may have been overlooked. For example, a study by Scharf (2007) split their third-generation participants into whether their parents were children of survivors or not. This enabled a more complex model of risk to be tested, whereby differences were

explored based on whether participants had grandparents on one side or both sides of their lineage who were survivors. Specifically, Scharf found effects evident in the third generation where both parents were children of Holocaust survivors. Thus the meta-analysis of Sagi-Schwartz et al. (2008) which combined participants who had one or two parents raised by survivors into one group, may have uncovered effects for the third generation if they had distinguished between the two groups.

Indeed, in her 2007 report, Scharf did find effects for the third generation. She explored psychosocial functioning, coping, and adjustment in senior high school grandsons of Holocaust survivors and a comparison group. She found evidence for the transmission of trauma down to the third generation. In particular, when both parents were children of survivors, grandchildren perceived their parents less optimally. Additionally, when both parents were children of survivors, the psychosocial functioning of the third generation was inferior to other groups. These same adolescents rated their self-perception (a combined measure of self-esteem, wellbeing, and locus of control) as lower than the other groups. These findings suggest that, while simply being a grandchild of a survivor may not have any effect, the cumulative effect of having two parents who were both children of survivors reveals vulnerabilities in the third generation.

It may seem a stretch to think that there could be any psychological effects of the Holocaust, an event that occurred decades before they were born, on the third generation. However, the tendency of survivors to not talk of their Holocaust experiences with their children, termed the “conspiracy of silence” by Danieli (1998) has been noted. As they aged, survivors felt the need to record testimonies and share their memories in an attempt to ensure that the Holocaust would not be forgotten and worse, repeated, after they passed away. Thus, the third generation, for the most part, grew up with a greater awareness of the Holocaust and of their grandparents’ history, although their exposure is more removed in time from the actual event (Zohar, Giladi, & Givati, 2007).

The past ten or so years has seen many dissertations written in the USA in the area of multi-generational transmission of Holocaust trauma, however few have been published. There is no known study to date that has considered the

psychological wellbeing of grandchildren of Holocaust survivors in Australia. The current study will attempt to fill this gap and provide insight into whether tertiary traumatisation exists.

Having considered the history, current status, and some of the problems that face the Jewish population, the discussion now turns to the subjective issue of what being Jewish means to individuals.

Identity

The diversity of Jews worldwide leaves researchers with the challenge of distinguishing exactly what it means to an individual to be Jewish. The typical framework guiding a discussion of identity formation relies upon the premise that individuals can have multiple social identities, any of which can be salient in the given context (Tajfel & Turner, 1986). According to Social Identity Theory, identifying with different groups facilitates the development of self-esteem and enhances individuals' sense of belonging.

Determining the components of a Jewish identity is inherently difficult. The various denominations of Judaism along religious and cultural lines give rise to the different ways in which people can express their Jewishness. However, a strong Jewish identity does not directly follow from the most religious or the most culturally observant Jews. Indeed, certain individuals might adhere to very few religious customs, live a generally assimilated lifestyle, yet still recognise their Jewishness as an important and inescapable part of themselves. As a result, Jewish identity becomes a complex and difficult construct to measure.

Many researchers have attempted to measure a "Jewish identity" in line with the Social Identity Theory perspective; that is, by breaking Jewish identity down into ethnic, cultural, and religious components (e.g., Bowen, Singal, Eng, Crystal, & Burke, 2003; Amyot & Sigelman, 1996). However, it is apparent that this theory does not lend itself accurately to an explanation of Jewish identity. A measure of Jewish identity cannot equate to a measure of racial identity, cultural identity, or religious identity alone. Nor can Jewish identity equate to the aggregate sum of these identities. Rather, a Jewish identity is some complex integration of each of these elements.

A study in the US by Amyot and Sigelman (1996) sought to establish what constitutes Jewish identification. These authors were particularly interested in those Jews who are assimilated within the wider American society, for previous research had shown that even Jews who do not practice Judaism as a religion, nor participate in Jewish communal life, still engage a strong sense of Jewish identification (e.g. Bershtel & Graubard, 1992). Amyot and Sigelman found that Jewish religiosity and social contact with other Jews predicted Jewish identification. Further, if only one of these predictors fell, Jewish identification overall did not fall as far. When both predictors fell, Jewish identification fell, but not nearly as far. This suggests that Jewish identity has a 'base' that is impervious to the declines in religiosity and social contact. Amyot and Sigelman stated that this is a base that "does not atrophy with neglect" (p. 186). Similarly, one of the earliest accounts of a psychological perspective of the Jewish identity refers to a "kernel of sameness" (Herman, 1977, p. 24) in all Jews, regardless of their level of assimilation within the majority culture or their religious adherence. In a second study by Amyot and Sigelman (1996), this 'base' was found to be an outcome of early socialisation as a Jew (or at least, early awareness of Jewish ethnicity).

The idea that Jewish identity results from early social contact with Jewish family and friends is consistent with other developmental theories of Jewish identity formation. According to the developmental perspective, the early Jewish environment forms the foundation for Jewish identity; with parental influence and formal Jewish education the major factors (Hartman & Hartman, 2003; Himmelfarb, 1980; Sklare & Greenblum, 1967; Laserwitz, 1973). Jewish identity is further influenced by events in adolescence and young adulthood, including participation in Jewish youth groups and group trips to Israel (Hartman & Hartman, 2003; Levinson & Zoline, 1997; Arnow, 1994). Getting married and having children are core values of Jewish life, and Jewish identification peaks in adulthood during these times (Himmelfarb, 1980).

Besides life-cycle events, knowledge and awareness of the shared history of the Jewish people is also thought to contribute to a strong Jewish identity. A contemporary Jewish identity must therefore include a strong affiliation to the State of Israel and a Zionist attitude, and encounters with anti-Semitism and

knowledge of the Holocaust. Though these factors cannot be said to be the 'base' of Jewish identity as they are events that have occurred in the past 70 years (and Jewish identity existed before these events occurred), it cannot be denied that these are two important elements which have contributed to the contemporary Jewish identity (Arnow, 1994; Winter, 2002; Claussen & Wong, 2004). Particularly in Australia, where a large proportion of Jews are descendants of Holocaust survivors, knowledge of this event is all too fresh in people's minds to not influence modern-day Jewish identity.

Ethnic Identity, Subjective Wellbeing and Self-Esteem

Ethnic identity has been found to predict self-esteem, and this relation is higher among members of ethnic minority groups (e.g. Carlson, Uppal, & Prosser, 2000, Phinney, 1992). Ethnic identity is a component of social identity, and Lewin (1948) noted that group identification was essential to maintaining a sense of wellbeing. According to Tajfel and Turner's (1979) Social Identity Theory, simply being a member of a group provides individuals with a sense of belonging that contributes to a positive self-concept. However, belonging to the Jewish group involves a particular sense of vulnerability and an awareness of a group history marred by persecution and social injustice. As Fein (1988, p.59) put it, "What is the first lesson a Jew learns? That people want to kill Jews". How then, can Jewish individuals maintain a positive identification with a group when doing so exposes them to question their own future existence?

Certainly, it has been noted that membership in a minority group can create a psychological conflict for individuals (Tajfel, 1978). This conflict lies in efforts to maintain and establish an identity within the minority group in the face of negative majority views, and assimilating with the wider society. In the case of a Jewish identity, this conflict can be reinterpreted as the difficulties encountered when trying to uphold traditions and cultural and religious beliefs in a society that is based on Westernised Christian culture. Cross, Smith, and Payne (2002) discussed how using one's own ethnic identity can act as a "buffer" against discrimination from the majority group. Accordingly, it would be assumed that having a stronger sense of ethnic identity can protect individuals from internalising the negative views from the majority group.

One study by Goldberg and O'Brien (2005) found that Jewish identity accounted significantly for variance in psychological distress in American Jewish women. Findings from a study of Jewish early adolescents' ethnic identity, stress and coping suggested that although high levels of Jewish identity might heighten Jewish adolescents' sensitivity to ethnic-related stressors, their Jewish identity might also act as a resource for coping with those stressors (Dubow, Pargament, Boxer, & Tarakeshwar, 2000).

A strong sense of Jewish identity may also increase social capital. One study, exploring identification and community involvement in a Polish Jewish sample, found that those with strong in-group ties (reflecting identification with the group) were more likely to become involved in group activities (Bilewicz & Wojcik, 2010). Although this study claims to find that "strong ties with other Jews are the crucial factor that activates the Jewish community in Poland" (p. 77), the authors in fact appear to be measuring two different aspects of social capital (in-group ties and community involvement), and simply noticing their interrelation. Another study did however find evidence in an Israeli sample that social capital (including social trust) at the individual level is higher in the Jewish community than in the Arab community (Baron-Epel, Weinstein, Haviv-Mesika, Garty-Sandalon, & Green, 2008). No study has yet explored social capital within the Australian Jewish community.

Measuring Jewish Identity

In line with recent trends, Jewish identity for the current study will be measured along two dimensions – cultural identity and religious identity. Items to assess cultural identity were taken from the 14-item Multi-group Ethnic Identity Measure (MEIM; Phinney, 1992), with items shown in the table below. This scale was originally conceived as a single factor measure of ethnic identity comprising three interrelated components – affirmation/belonging, ethnic identity achievement, and ethnic behaviours. Respondents indicated how much they agree or disagree with each statement on a 4-point scale.

Table 4:

The Multigroup Ethnic Identity Measure (Phinney, 1992)

Item	
1.	I have spent time trying to find out more about my own ethnic group, such as its history, traditions, and customs
2.	I am active in organisations or social groups that include mostly members of my own ethnic group
3.	I have a clear sense of my ethnic background and what it means for me
4.	I think a lot about how my life will be affected by my ethnic group membership
5.	I am happy that I am a member of the group I belong to
6.	I am not very clear about the role of my ethnicity in my life*
7.	I really have not spent much time trying to learn more about the culture and history of my ethnic group*
8.	I have a strong sense of belonging to my own ethnic group
9.	I understand pretty well what my ethnic group membership means to me, in terms of how to relate to my own group and other groups
10.	In order to learn more about my ethnic background, I have often talked to other people about my ethnic group
11.	I have a lot of pride in my ethnic group and its accomplishments
12.	I participate in cultural practices of my own group, such as special food, music, or customs
13.	I feel a strong attachment towards my own ethnic group
14.	I feel good about my cultural or ethnic background

*Note: * = reverse-scored items*

Reliabilities for Phinney's (1992) scale were .81 in a high school sample and .90 in a college sample. The affirmation/belonging subscale included items 5, 8, 11, 13 and 14. The ethnic identity achievement subscale consisted of items 1, 3, 4, 6, 7, 9 and 10, and the ethnic behaviours subscale comprised items 2 and 12. Despite Phinney's findings, some items were omitted for the present study. The two negatively worded items seem to be of little value, especially since the wording is almost exactly the same as other items just with a negative slant. For example, item 6 "I am not very clear about the role of my ethnicity in my life" is almost the precise opposite of item 3 "I have a clear sense of my ethnic background and what it means for me". Indeed, item 6 loaded weakest on the ethnic identity factor in both of Phinney's (1992) samples. A later replication of the MEIM in young adolescents from diverse ethno-cultural groups by Roberts et

al. (1999) confirmed that the two negatively-worded items comprised their own factor within the scale. These items were eliminated and a final 12-item scale agreed upon. Roberts et al. also re-worded item 9 so as to reduce ambiguity and their replacement item "I understand pretty well what my ethnic group membership means to me" is considered a more comprehensible alternative.

For the current study, the remaining 12 items were reworded according to the modified scale used by Bowen et al., (2003) who adapted the scale so that it applied to an adult, Jewish population. These authors reported reliability (Cronbach's alpha) as .77 for their 12-item version of the scale, slightly lower than the original reliabilities reported by Phinney (1992). Respondents are instructed to express how much they agree or disagree with each statement on an 11-point end-defined scale.

Table 5:

A revised Ethnic Jewish Identity Measure

Item	
1.	I have spent time trying to find out more about my own Jewish heritage/identity, such as its history, traditions and customs
2.	I am active in organisations or social groups that include mostly members of the Jewish community
3.	I have a clear sense of my Jewish heritage and what it means to me
4.	I think a lot about how my life will be affected by my Jewish heritage
5.	I am happy that I am Jewish
6.	I have a strong sense of belonging to the Jewish community
7.	I understand well what being a member of the Jewish community means to me
8.	In order to learn more about my Jewish heritage, I have often talked to other people about the Jewish community
9.	I have a lot of pride in the Jewish community and its accomplishments
10.	I participate in Jewish culture, such as Jewish food, music, and customs
11.	I feel a strong attachment towards the Jewish community
12.	I feel good about my Jewish background

Religious identity

Items to assess religious identity were taken from two scales; The Religious Identity Scale (Bowen, Singal, Eng, Crystal, & Burke, 2003) is a more subjective

assessment of how important religiosity is to the respondent, the Religiosity Index (Amyot & Sigelman, 1996) asks participants how often they partake in a series of activities that are typically observed by religious Jews. It is assumed that if it is important to the respondent to adhere to religious rituals and customs then they will perform more of them more frequently than those who are less religiously inclined.

Table 6:

Measuring Religious Identity

Item	
Religious Identity Scale	
1.	My religious faith is strong
2.	It is important to me to attend religious services regularly
3.	My religious beliefs serve as a comfort to me
4.	I often celebrate religious holidays
5.	I frequently attend religious services
Religiosity Index	
How often do you or members of your household…	
1.	Attend a Seder on Passover
2.	Light candles on Hanukkah
3.	Fast on Yom Kippur
4.	Attend synagogue more than once a month
5.	Light candles on Friday night
6.	Purchase Kosher meat
7.	Use separate dishes for meat and dairy products
8.	Refrain from handling money on the Sabbath

Considering that the Religiosity Index includes an item assessing frequency of synagogue attendance, item 5 from the Religious Identity Scale, "I frequently attend religious services" will be removed for the present study.

Finally, to assess the influence of cultural and religious identities on overall self-perceived Jewish identity, participants will rate their overall strength of Jewish identity on a scale where zero equals "not strong at all" to ten – "extremely strong". This will allow for scores on the cultural and religious scales

to be regressed onto the overall Jewish identity score and confirm the contributions of each of these elements.

Summary and introduction to Study 1

The Jewish community, although small in number, have a great impact on Australian business, economy, and culture. Comprising a large proportion of Holocaust survivors who came to Australia seeking a better quality of life for themselves and their families, the Jews of Australia are a unique and extraordinary group. The current study aims to explore this group in terms of their psychological wellbeing, and will include insights into social capital, and Jewish identity. In addition, the study aims to compare SWB in the Jewish population to the general Australian population, and then to focus in on comparing families of Holocaust survivors to Jewish non-survivor families. By doing so, a more complete profile of the Jewish community, and of descendants of Holocaust survivors within that community, will be afforded.

Hypotheses for Study 1

Hypothesis 1: That Jewish wellbeing will be similar to wellbeing in the general Australian population, however the domains that contribute to wellbeing will differ.

In line with homeostatic theory, it seems reasonable to assume that wellbeing in the Jewish population will be no different to that of the general Australian population. However, there is reason to suspect that, because of the different issues the Jewish community face in comparison to the general Australian population, some of the domains that contribute to SWB may differ. For example, since participants for the current study will be selected because they belong to a group bound (amongst other things) by religious ties, satisfaction with religion may have a greater contribution to wellbeing than in the general Australian population. Further, due to the emphasis on achievements and community togetherness, these domains may contribute differently to SWB. The threat of anti-Semitism in Australia may also elevate the contribution of satisfaction with personal safety to SWB.

Hypothesis 2: That: (a) HPMood will account for the majority of variance in SWB, with the cognitive buffers playing a subsidiary role; (b) Jewish identity will contribute additional variance; and (c) Social Capital will be associated with SWB, but will not add to the prediction of it beyond the buffers already in the homeostatic model, and the demographic variables that are known to predict SWB.

Further in regard to homeostatic theory, HPMood should account for the majority of variance in SWB. The cognitive buffers of Self-Esteem, Optimism, and Control should help to explain some additional variance. In addition to the effects of these elements, Social Identity Theory predicts that membership in a group evokes a sense of belonging which contributes to a positive self-concept. Even in the face of adversity, a strong ethnic identity can be an effective coping resource. Beyond the buffers already included in the homeostatic model, having a strong sense of Jewish identity may therefore also contribute to SWB. Social capital, conceptualised as trust, may have an association with SWB, with higher trust associated with higher wellbeing. However, any association may be explained away by exploring the relationships between trust and many of the demographic predictors of SWB.

Hypothesis 3: That children of Holocaust survivors and grandchildren of Holocaust survivors will report lower wellbeing than those who are not descendants of survivors.

Considering the research on the intergenerational transmission of trauma, and findings which reveal that descendants of survivors are more prone to depression and lowered feelings of self-worth, it is predicted that participants in the current sample who are children or grandchildren of survivors may be vulnerable to lower SWB.

CHAPTER 4: STUDY 1 METHOD

Participants

Australian, Jewish participants were recruited through Jewish schools, organisations, and online social networking sites. Approximately 300 hard-copy versions of the questionnaire were distributed, with 69 (23%) of these returned. An additional 216 participants completed the questionnaire online. Altogether 285 participants completed the questionnaire, comprising 113 males and 172 females. The mean age of the sample was 35.20 years (SD = 14.12), ranging from 18-80.

Materials

The questionnaire was divided into four sections. The first section assessed Subjective Wellbeing and included the Personal Wellbeing Index (PWI; IWBG, 2006), items assessing HPMood (Tomyn, 2008), items from the Life Orientation Test-Revised (Scheier, Carver, & Bridges, 1994), items from the Personal Perceived Control Scale (PPCS; Holloway, 2003), and selected items from the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). The second section assessed Social Capital, and included items from the General Social Capital Scale (Onyx & Bullen, 2000), the Internet Social Capital Scale (Williams, 2006), and the Sense of Community Index (Obst & White, 2004). An item from the General Social Survey (National Opinion Research Centre, 1972) was used to gauge a general feeling of trust in the Jewish community and the wider Australian community. The third section assessed Jewish Identity, and included the Multigroup Ethnic Identity Measure (Phinney, 1992), the Religious Identity Scale (Bowen, Singal, Eng, Crystal, & Burke, 2003), and the Religiosity Index (Amyot & Sigelman, 1996). The final section requested demographic information from participants.

Measuring Subjective Wellbeing

The Personal Wellbeing Index (PWI) - The PWI (IWBG, 2006) is an 8-item scale which measures subjective wellbeing. It assesses participants' satisfaction with 8 domains of life: standard of living, health, what you are currently achieving in life, personal relationships, personal safety, feeling part of the

community, future security, and spirituality or religion. Domain validity is assessed by regressing them onto a single-item measure of satisfaction with life as a whole. Each item is designed to contribute unique variance to life as a whole. Respondents rate each domain on an 11-point end defined scale, from 0 (completely dissatisfied) to 10 (completely satisfied). The scale has strong psychometric properties, with the International Wellbeing Group (2006) reporting strong internal reliability (Cronbach's alpha ranging from .70 to .85).

HPMood - HPMood is measured by asking participants how happy, content and alert they generally feel on an end defined 11-point scale from 0 (not at all) to 10 (extremely). These responses were summed together to obtain an overall HPMood score. The three affective adjectives were selected following findings from Davern (2004) and Tomyn (2008) which showed that happy, content, and alert explained 59% of variation in SWB and thus best represent HPMood.

Life Orientation Test-Revised (LOT-R) - Three items from the LOT-R scale (Scheier, Carver, & Bridges, 1994) were used in the questionnaire. The items selected were the three positively-worded items which specifically assess the degree of participants' optimistic outlook, e.g. "In uncertain times I usually expect the best". The remaining scale items were rejected following studies that have attested to the bi-dimensionality of the LOT-scale (e.g. Chang, Maydeu-Olivares, & D'Zurilla, 1997). Participants rated their level of agreement or disagreement on an 11-point end defined scale ranging from 0 (strongly disagree) to 10 (strongly agree).

Personal Perceived Control Scale (PPCS) - The PPCS (Holloway, 2003) measures control along two dimensions; primary and secondary control. Three items assess each dimension on an 11-point end-defined scale. Participants are instructed to rate how much they agree or disagree with statements relating to how they cope when something bad happens to them. For example, the item "You ask others for help or advice" reflects primary control, and the item "You remember that the situation will improve if you are patient" reflects secondary control.

Rosenberg Self-Esteem Scale (RSES) - The RSES (Rosenberg, 1965) is a 10-item scale which has been widely used to evaluate self-esteem. It comprises

five positively-worded items and five negatively-worded items. Following careful consideration of the factor structure and true meaning of the construct (see Appendix A), only the five positively-worded items were retained to measure self-esteem. Participants rated how much they agree or disagree with statements such as “I feel I have a number of good qualities”.

Measuring Social Capital

Due to the lack of agreement as to an accurate definition of social capital, no single scale is deemed appropriate on its own to evaluate the construct. Having earlier defined social capital in terms of social trust, selected items from scales that have attempted to measure social capital will be analysed alongside the General Social Survey item “Most people in the Jewish community can be trusted”. This method of analysis will determine whether a single-item measure can best represent social capital, or ascertain whether one scale or a single item better assesses social capital over another. In order to ensure that the General Social Survey item is measuring trust in a particular social group rather than generalised trust, the item “Most people in the Australian community can be trusted” was also included for comparative purposes. In addition, three Social Capital scales with strong psychometric properties were selected, and some items were discarded due to concerns with face validity, lack of theoretical backing to justify their inclusion in the questionnaire, or low factor loadings on proposed indicators of social capital.

General Social Capital Scale (GSCS) - The original GSCS (Onyx & Bullen, 2000) included 36-items that loaded onto eight factors as well as a “General Social Capital Factor”. For the current study, four of the factors (Family and friends connections, tolerance of diversity, value of life, and work connections) were immediately rejected as they lacked face validity, that is, they do not appear to measure social capital according to its theoretical definition. Other items were removed for various reasons, including low factor loadings, repetition of similar items and ambiguity with item wording. Eight items were finally selected which were thought to best represent social capital. Some of these items were re-worded so that all items could be rated on an 11-point end-defined scale and be relevant for the current sample, for example the item “Do you help out a local group as a volunteer” became “It is important to me to help Jewish community groups as a

volunteer" and participants rated their level of agreement or disagreement with this statement.

Internet Social Capital Scale (ISCS) - The ISCS (Williams, 2006) assesses Social Capital according to Putnam's theoretical distinction between bonding and bridging social capital. This scale was originally devised to measure social capital in an online and offline context. For the current study, eight items from the Bonding subscale were retained, along with two items from the Bridging subscale. Items were reworded to specifically apply to the sample in question and participants rated how much they agreed or disagreed with statements such as "There are people in the Jewish community who would put their reputation on the line for me".

Sense of Community Index (SCI) - The SCI (Obst & White, 2004) in its original form is a 10-item scale assessing people's feelings about the neighbourhood in which they live. Items from this scale were included following Pooley, Cohen, and Pike's (2005) suggestion that Sense of Community can inform Social Capital. Half of the items were removed from the original scale; considering that the Jewish population is spread throughout Australia and this study sought to explore social capital in a community not bound by geographical ties, some items were removed as they referred specifically to geographical neighbours. Other items that loaded onto more than one factor or showed inconsistent factor loadings in different samples were also removed. The remaining five items were reworded to apply to the present sample, and included statements such as "I care about what other members of the Jewish community think about my actions".

Measuring Jewish Identity

Multigroup Ethnic Identity Measure (MEIM) - A 12-item version of the MEIM (Phinney, 1992) was used to measure cultural identity. This version of the scale was used by Bowen, Singal, Eng, Crystal, and Burke (2003), who also re-worded the items to refer to a Jewish population. For this scale, participants rate how much they agree or disagree with statements such as "I have a strong sense of belonging to the Jewish community" and "I am active in organisations or social

groups that include mostly members of the Jewish community". The authors reported reliability for the 12-item Jewish version of the scale as .77.

Religious Identity Scale (RIS) - The RIS (Bowen, Singal, Eng, Crystal, & Burke, 2003) is a five-item scale used to assess one's sense of religious identity. One item, "How frequently do you attend religious services" was removed as it was deemed too similar to the item "Importance of attending religious services regularly", and the latter item demands a more subjective response. The remaining items were re-worded for the current study in order to fit an 11-point "strongly disagree" to "strongly agree" response scale.

Religiosity Index - The Religiosity Index was used by Amyot and Sigelman (1996) as a measure of private religious observance. The items on the scale reflect typical religious Jewish activities, and the most religious Jews would always perform each of these activities. Though some practices are considered to be more religious than others (i.e. many Jewish people will attend a Seder on Passover, but will not refrain from handling money on the Sabbath) the scale should still discriminate between the most religious and the least religious.

Procedure

Approval was sought from Deakin University Human Research Ethics Committee (HMNBS) to undertake the study. After approval was granted, various schools and organisations were contacted by email or telephone and the aims and purposes of the research were made clear. It was explained to them that their help was requested in order to recruit participants, and their permission to distribute information about this study via email or their mailing lists was given verbally and in emails. Participants were also informed of the study via an online networking site in which they were invited to participate in a research study. Other participants were recruited by distributing information about the study through a snowball technique.

Participants who received the hard-copy version were mailed or handed an envelope that contained a cover letter, plain language statement, a copy of the questionnaire, and a letter to indicate whether they would be interested in participating in a future research study of this kind. Participants were also

provided with a reply-paid envelope in which they sealed their completed questionnaire and (if necessary) their letter of continued interest. These envelopes were returned to Deakin University where they were collected by the researcher.

Participants who were contacted by email were presented with a link to the website and a brief message inviting them to participate in an important research study, of which the aims and purposes were explained. If they agreed to participate, they were instructed to click on a link to direct them to the website. Here they were shown a plain language statement before agreeing to complete and submit the study.

Participants were encouraged to contact the researcher if they were interested in the collaborative findings, and brief summary reports of the findings were presented to the schools and organisations that helped in the recruitment stage.

CHAPTER 5: STUDY 1 RESULTS

Data Preparation and Assumptions

Data were first screened through SPSS 15.0. Missing values were found to be random and thus cases were excluded pair-wise in subsequent analyses, following recommendation from Pallant (2007). One participant (ID 19) recorded the maximum possible score for PWI, HPMood and Self-Esteem and responses were suggestive of an acquiescent response style. This case was therefore removed from the data set prior to analyses.

Tests of normality were conducted on each scale. All scales except for the Religious Identity Scale violated the assumption of normality. Due to the nature of these scales assumptions of normality were relaxed for subsequent analyses, as SWB measurement is acknowledged to be subject to positive skew (Cummins, 1995; 1998).

A total of 58 univariate outliers were identified in the data set as being 3 *z*-scores below the mean. Each outlying score was recoded back to within the accepted range, as recommended by Tabachnik and Fidell (2007). Fourteen multivariate outliers were identified by the criterion of Mahalanobis distance at a significance level of .001 (df = 30) with a Chi-Square value of 59.703. Independent sample t-tests showed that there were no significant differences on any of the major variables when multivariate outliers were included as compared to when they were excluded. However, following advice from Tabachnik and Fidell (2007, pg. 77) that "they may distort the results in almost any direction" it was thought best to simply remove all multivariate outliers from subsequent analyses.

All scores (other than demographic items) were converted to percentages of Scale Maximum scores (%SM). As each item was assessed on an 11-point scale from 0-10, all scores were simply multiplied by 10 to convert them to lie within a 0-100 range.

FACTOR ANALYSES

Factor analyses were performed for each scale. The sample size was greater than 150 and the ratio of cases to variable was greater than 5 to 1, thus meeting the minimum requirements for factor analysis as recommended by Tabachnik and Fidell (2007). Prior to analysis, the suitability of each variable for this method of analysis was assessed using the criterion of a Kaiser-Meyer-Olkin Measure of Sampling Adequacy greater than 0.6, and a significant score for Bartlett's test of sphericity (Tabachnik & Fidell, 2007). The correlation matrices for each variable were also checked to ensure that many coefficients were above .30. For most variables, orthogonal (Varimax) rotation was used to aid interpretation of the extracted factors. This method of rotation was used as it is the preferred technique for analysing variance unique to each factor. In some cases, where orthogonal rotation gave a complex factor structure, or where it was expected that there would be shared variance amongst the factors, oblique (Direct oblimin) rotation was used. As a general rule, factors were extracted if they had eigenvalues exceeding 1, and inspection of the scree plot confirmed the final factor structure. For all analyses, factor loadings less than .40 were suppressed so that only items loading high enough onto factors are shown.

Table 7 confirms the suitability of each scale for factor analysis, as revealed by the values for the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity.

Table 7:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity scores for each variable to be factor analysed

Variable	KMO	Bartlett's test of sphericity
PWI	.840	$x^2_{(28)} = 704.243$, p=.000
HPMood	.619	$x^2_{(3)} = 529.440$, p=.000
Optimism	.719	$x^2_{(3)} = 414.239$, p=.000
Control	.802	$x^2_{(15)} = 710.661$, p=.000
Self-Esteem	.837	$x^2_{(10)} = 1053.728$, p=.000
Social Capital	.894	$x^2_{(276)} = 3952.614$, p=.000
Cultural Identity	.895	$x^2_{(66)} = 2319.822$, p=.000
Religious Identity	.830	$x^2_{(6)} = 736.118$, p=.000
Jewish Activities	.838	$x^2_{(28)} = 1182.932$, p=.000

Factor analysis of the PWI

Principal components analysis was performed on the 8 items of the PWI. Two factors emerged but one had just two items. Thus, a single factor structure was forced. The data met the assumptions necessary for factor analysis, with most items correlating greater than .30 with each other. The single-factor structure accounted for almost 47% of the variance. Table 8 displays the factor loadings for the PWI, sorted from highest to lowest loading item.

Table 8:

Component matrix showing item loadings for the Personal Wellbeing Index

Questionnaire items		Factor loading
7	How satisfied are you with your future security?	.764
3	How satisfied are you with what you are currently achieving in life?	.735
4	How satisfied are you with your personal relationships?	.711
1	How satisfied are you with your standard of living?	.704
5	How satisfied are you with how safe you feel?	.677
6	Ho w satisfied are you with feeling part of your community?	.661
8	How satisfied are you with your spirituality or religion?	.614
2	How satisfied are you with your health?	.599

Factor analysis for the HPMood scale

The three HPMood items were analysed using principal components. As expected, a single factor structure for HPMood emerged, explaining 76% of the variance. Table 9 shows the factor loadings of the three items.

Table 9:

Component matrix showing item loadings for the HPMood scale

Questionnaire items		Factor loading
1	How happy do you generally feel?	.943
2	How content do you generally feel?	.933
3	How alert do you generally feel?	.723

Factor analysis for the Optimism scale

The three items used to measure optimism were subject to principal components analysis. As expected, a single factor structure was revealed which accounted for 79% of the variance. Table 10 shows the factor loadings of the three optimism items.

Table 10:

Component matrix showing item loadings for the Optimism scale

Questionnaire items		Factor loading
2	I'm always optimistic about my future	.918
3	Overall, I expect more good things to happen to me than bad	.897
1	In uncertain times, I usually expect the best	.858

Factor analysis for the Control scale

Initial principal components analysis of the six Control items revealed only a single eigenvalue over 1, indicating a single-factor structure. However, since the scale is believed to represent the two variables of primary and secondary control, a two-factor extraction was forced, which then explained a combined 72% of variance (56% and 16% respectively). Varimax rotation of the factors revealed a complex structure, with item 4 ("You remind yourself that something good may come of it") loading greater than .40 onto both factors. Upon oblique (direct oblimin) rotation, a simpler factor-structure was revealed. This method of rotation uses the shared variance between items, revealing that although there is a two-factor structure, the factors are not independent of each other, but rather they correlate at r = .50. Factor loadings of items are shown in Table 11.

Table 11:

Pattern matrix showing item loadings for the Control scale

Questionnaire items		Factor 1	Factor 2
2	You look for different ways to improve the situation	.938	
3	You use your skills to overcome the problem	.809	
1	You ask others for help and advice	.724	
5	You remind yourself that you are better off than some others		.907
6	You remember that the situation will improve if you are patient		.859
4	You remind yourself that something good may come of it		.678

Consistent with previous factor analyses of the Control scale, Factor 1 represents Primary control and Factor 2 represents Secondary control.

Factor analysis for the revised Self-Esteem Scale

For the revised Self-Esteem scale, a principal components analysis with Varimax rotation was performed. The data revealed a single-factor structure for self-esteem, explaining 75% of the variance. Table 12 shows the factor loadings of the five self-esteem items, listed in order of highest to lowest loadings.

Table 12:

Component matrix showing item loadings for the Self-Esteem scale

Questionnaire item		Factor loading
2	I feel I have a number of good qualities	.894
4	I take a positive attitude toward myself	.887
1	I feel I am a person of worth, at least on an equal plane with others	.878
3	I am able to do things as well as most other people	.867
5	On the whole, I am satisfied with myself	.815

Factor analysis of the Social Capital Scale

Principal components analysis was performed on the 24 items of the Social Capital Scale. Initially, a six-factor structure emerged, which accounted for 70% of the variance. Varimax rotation identified 3 items which loaded onto more than one factor: Item 9 “My Jewish community feels like home”; item 21 “I care about what other members of the Jewish community think about my actions”; and Item 22 “I have an influence over what the Jewish community is like”. Removing items 21 and 22 resulted in items 23 and 24 alone representing a factor. As 2 items are insufficient to represent a single factor, items 23 and 24 were also removed and the analysis was repeated. In the subsequent analysis involving 19 items, a five-factor structure emerged, explaining 72% of variance. The remaining items and their factor loadings are shown in Table 13.

Table 13:

Component matrix showing item loadings for the Social Capital scale

Questionnaire item		1	2	3	4	5
16	There are people in the Jewish community who would share their last dollar with me	.780				
12	There is always someone in the Jewish community to help me with important decisions	.776				
17	There are people in the Jewish community who would help me fight an injustice	.775				
13	If I needed an emergency loan of $1,000 I know someone in the Jewish community I could turn to	.757				
14	There are people in the Jewish community who would put their reputation on the line for me	.731				
11	There are several people in the Jewish community I trust to help solve my problems	.717				
10	I can get help from friends in the Jewish community when I need it	.680				
15	There are people in the Jewish community who would provide a good job reference for me	.675				

Questionnaire item		1	2	3	4	5
5	It is important to me to be an active member of a Jewish organisation or club		.856			
4	It is important to me to attend Jewish community events		.845			
3	It is important to me to help Jewish community groups as a volunteer		.827			
19	Interacting with people in the Jewish community reminds me that all Jews in the world are connected			.838		
18	Interacting with people in the Jewish community makes me feel like part of a worldwide Jewish community			.800		
20	I want the same things from our Jewish community as most other members			.621		
7	I feel safe walking down my street after dark				.857	
8	I feel that the Jewish community is a safe place				.793	
6	If I disagreed with everyone else in the Jewish community, I would feel free to speak out				.489	
2	Most people in the Australian community can be trusted					.907
1	Most people in the Jewish community can be trusted					.871

Although as a general rule, 2 items alone do not constitute a valid factor, items 1 and 2 (and thus the fifth factor) were retained for this study. These items, "Most people in the Australian community can be trusted" and "Most people in the Jewish community can be trusted" were taken from the General Social Survey questionnaire, and were originally conceived as separate items to which the remaining items would be compared. Principal components analysis with these two items removed gave a simple four-factor structure, however inclusion of these items added a further 6% explanatory variance and so the decision was made to keep them for further analyses.

Factor 1 consists of 8 items, 7 of which were originally taken from the Bonding subscale of Williams' (2006) Internet Social Capital Scale. These items reflect a confidence in one's social networks that in a given situation, one will be able to get help from the people they associate with. It is, therefore, little surprise

that the final item loading onto Factor 1, “I can get help from friends in the Jewish community when I need it” belongs in this category. Together, the underlying theme of this factor is akin to the concept of a “favour bank”, the exact principle upon which Putnam (1993) coined the term “Bonding Social Capital”. Thus, consistent with Putnam and Williams (2006), Factor 1 will be termed the “Bonding Subscale”.

The second factor comprises three items: “It is important to me to help Jewish community groups as a volunteer”, “It is important to me to be an active member of a Jewish organisation or club”, and “It is important to me to attend Jewish community events”. These items are each present in the “Participation in the Local Community” factor in the Onyx and Bullen (2000) study, and reflect the tendency to be actively involved in the community. Since it is community activity that characterises Putnam’s (1993) concept of “Bridging Social Capital”, Factor 2 will be termed the “Bridging Subscale”.

The three items that comprise Factor 3 include two items from Williams (2006) Bridging Social Capital Subscale, and an item from the Sense of Community Index (Chipuer & Pretty, 1999). The items, “Interacting with people in the Jewish community reminds me that all Jews in the world are connected”, “Interacting with people in the Jewish community makes me feel like part of a worldwide Jewish community”, and “I want the same things from our community as most other members” appear to reflect a desire to belong to a group with shared values and goals. The third factor will therefore be termed the “Belonging Subscale”.

The fourth factor includes 2 items from the “Feelings of trust and safety” subscale of Onyx and Bullen (2000) and an item from the “Social Agency” subscale. The item “If I disagreed with everyone else in the Jewish community, I would feel free to speak out” would appear to load together with the other two items, “I feel safe walking down my street after dark” and “I feel that the Jewish community is a safe place” because feeling free to voice a different opinion from the rest of community without fear of backlash or rejection is consistent with feelings of mutual trust and respect among members of the community. The implication is that one feels safe enough within their community that they can

have their opinion heard and still maintain their community status. This fourth factor is therefore termed the "Safety" subscale.

The final factor comprises the two items adapted from the General Social Survey question. These items "Most people in the Australian community can be trusted" and "Most people in the Jewish community can be trusted" reflect a general tendency to trust other people. This final factor is therefore termed "Trust".

Factor analysis of the Cultural Identity Scale

Principal components analysis with Varimax rotation was performed for the items of the Cultural Identity scale. Prior to rotation, 2 factors emerged explaining 66% of the variance, with factors 1 and 2 accounting respectively for 57% and 9% of variance. Inspection of the component matrix revealed that half of the scale items cross-loaded onto two factors. Thus, for ease of interpretation, direct oblimin rotation was performed. As oblique rotation was performed, the two factors included shared variance and presented a correlation of .63. The factor loadings are shown in Table 14.

Table 14:

Pattern matrix showing item loadings for the Cultural Identity scale

Questionnaire items		Factor 1	Factor 2
6	I have a strong sense of belonging to the Jewish community	.860	
11	I feel a strong attachment towards the Jewish community	.846	
12	I feel good about my Jewish background	.829	
5	I am happy that I am Jewish	.792	
7	I understand well what being a member of the Jewish community means to me	.752	
9	I have a lot of pride in the Jewish community and its accomplishments	.726	
1	I have spent much time finding out about my own Jewish heritage, such as its history, traditions, and customs		.978
4	I think a lot about how my life is affected by my Jewish heritage		.727
8	In order to learn more about my Jewish heritage, I have often talked to other people about the Jewish community		.718

Questionnaire items		Factor 1	Factor 2
2	I am active in organisations or social groups that include mostly members of the Jewish community		.597
3	I have a clear sense of my Jewish heritage and what it means to me		.527
10	I participate in Jewish culture, such as Jewish food, music, and customs		.463

The first factor consists of 6 items. The four highest loading items, and the final item, were all included in Phinney's (1992) "Affirmation and Belonging Subscale". The other item, "I understand well what being a member of the Jewish community means to me" reflects an acknowledgement and understanding of one's cultural identity. Each of these items refer to a sense of contentment in regards to one's Jewish identity; feeling a sense of attachment and belonging implies that one recognises and readily accepts this part of their identity. Borrowing the term from Phinney, this factor is referred to as "Identity Affirmation".

The second factor includes items that reflect an underlying tendency to be involved with and nurture one's Jewish identity. By participating in Jewish culture, being active in Jewish organisations, actively seeking to learn more and think about one's Jewish identity, and by taking pride in the accomplishments of the community, people are actively engaging in identity-enhancing activities. This factor will therefore be termed "Identity Involvement".

Factor analysis of the Religious Identity Scale

Principal components analysis was performed on the 4 Religious Identity items. The expected single factor structure emerged and explained 77% of the variance. The factor loadings for the four Religious Identity items are presented in Table 15.

Table 15:

Component matrix showing item loadings for the Religious Identity scale

Questionnaire item		Factor loading
3	My religious beliefs serve as a comfort to me	.923
1	My religious faith is strong	.907
2	It is important to me to attend religious services regularly	.896
4	I often celebrate religious holidays	.788

Factor analysis of Jewish Activities Scale

The items of the Jewish Activities Scale were subject to principal components analysis. When both orthogonal and oblique rotations were performed, the oblique (direct oblimin) method produced a clearer, simpler factor structure, with all items loading as expected across the two factors. The two factors accounted for 53% and 15% of the variance respectively, together explaining 68% of variance.

Table 16:

Pattern matrix showing item loadings for the Jewish Activities scale

Questionnaire item		Factor 1	Factor 2
7	Use separate dishes for meat and dairy products	.917	
8	Refrain from handling money on the Sabbath	.905	
6	Purchase Kosher meat	.835	
4	Attend synagogue more than once a month	.791	
1	Attend a Seder on Passover		.897
2	Light candles on Hanukkah		.644
3	Fast on Yom Kippur		.589
5	Light candles on Friday night		.564

The two-factor structure hints at the reasons why Jewish people undertake each of these activities in the modern world. Factor 1 reflects a tendency to adhere to a more observant Jewish lifestyle; the activities that contribute to this factor are generally those that are performed by the more religious Jews. Factor 2 reflects a more cultural side of a Jewish life; these items reflect activities that do not impinge on or restrict one's everyday life, rather, they are activities that are easier

to perform, and easier to blend with a modern Australian lifestyle. For this reason, Factor 1 will be termed “Observant Jewish activities” and Factor 2 will be termed “Traditional Jewish activities”. The two factors had a modest correlation of .43 with one another.

DESCRIPTIVE STATISTICS

A summary score for each variable was calculated as the average of the component items. All scores have been converted from a 0-10 scale to a 0-100 scale. This method allows for simpler interpretation and comparison across variables. The means and standard deviations for each variable are shown in Table 17. This table also compares the two response methods; online versus hard-copy. Where appropriate, reliability measures are also included.

Table 17:

Descriptive statistics for all variables measured

Variable	*Online Version (N = 206)* Mean	SD	*Hard-Copy Version (N = 65)* Mean	SD	ANOVA	Cronbach's Alpha
Life as a Whole	75.63	14.56	73.87	15.99	F(1, 269) = .687, p = .408	
PWI – Total Score	76.51	12.35	76.56	10.46	F(1, 267) = .001, p = .974	.84
HPMood	74.10	13.06	72.72	13.29	F(1, 269) = .552, p = .458	.84
Optimism	67.92	18.16	66.41	16.46	F(1, 267) = .353, p = .553	.87
Primary Control	75.75	13.46	74.62	13.42	F(1, 269) = .352, p = .554	.76
Secondary Control	72.27	17.17	73.74	16.06	F(1, 269) = .378, p = .539	.81
Self Esteem	81.83	13.48	78.89	13.84	F(1, 269) = 2.325, p = .128	.91
SC – Bonding Subscale	73.70	18.63	72.85	17.60	F(1, 264) = .104, p = .748	.91
SC – Bridging Subscale	66.31	23.53	66.36	20.20	F(1, 269) = .000, p = .988	.92
SC – Belonging Subscale	70.41	20.49	74.69	16.71	F(1, 265) = 2.304, p = .130	.83
SC – Safety Subscale	68.54	18.57	66.21	16.07	F(1, 268) = .828, p = .364	.62
SC – Trust in the Jewish Community	64.42	18.22	68.52	17.47	F(1, 269) = 2.553, p = .111	
SC – Trust in the Australian Community	58.29	18.08	61.85	16.57	F(1, 268) = 1.982, p = .160	
CI – Identity Affirmation	82.61	16.65	84.66	14.03	F(1, 265) = .793, p = .374	.91
CI – Identity Involvement	73.89	18.99	74.27	16.51	F(1, 264) = .020, p = .887	.87
Religious Identity	61.84	25.19	71.85	25.01	**F(1, 269) = 7.815, p = .006**	.90
JA – Observant Jewish Activities	46.06	37.07	68.28	36.77	**F(1, 268) = 17.616, p = .000**	.90
JA – Traditional Jewish Activities	87.26	17.59	93.96	11.32	**F(1, 269) = 8.335, p = .004**	.70
Jewish Identity	82.98	16.99	85.29	18.42	F(1, 269) = .875, p = .351	

For most variables, the one-way ANOVA shows that there were no differences in scores between the two response formats. The only measures on which scores significantly differed were the Religious Identity Scale and the two scales relating to Jewish Activities. The difference on these measures can be explained by the fact that the hard-copy versions of the questionnaire were distributed to parents whose children attended a Modern-Orthodox, Zionist Jewish day-school. Parents who send their children to this school would be seeking a more religious Jewish education for their children in accordance with their lifestyle, so they are expected to be more religiously-oriented and live more observant Jewish lifestyles. The significant difference found here thus actually confirms the discriminate capacity of these measures.

The reliability values for each scale are generally acceptable as they are above .70. The single exception is for the Safety Subscale of the Social Capital Scale, however the items that comprise this subscale are reliable enough (.62) to represent their own separate factor, and so this value will be accepted for this study.

Table 18 presents the correlations between all measured variables.

The correlational values indicate a strong positive relationship between the PWI-total and Life as a Whole scores, as would be expected. HPMood also correlates strongly with both of these variables, echoing the proposed link between HPMood (or Core Affect as it was formerly known) and Wellbeing (Davern, 2004). Other strong correlations to note include those between the Involvement subscale of Cultural Identity with the Bridging scale of Social Capital, the two Trust items, and the correlation between the two Cultural Identity subscales. Unsurprisingly, the single-item measure of Jewish Identity correlates highly with both subscales of the Cultural Identity scale.

Table 18:

Correlations between all variables:

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. PWI total	1																		
2. Life as a Whole	.72	1																	
3. HPMood	.77	.73	1																
4 Optimism	.53	.45	.59	1															
5. Primary Control	.54	.49	.50	.48	1														
6. Secondary Control	.41	.47	.45	.46	.56	1													
7. Self-Esteem	.61	.54	.69	.59	.49	.46	1												
8. Social Capital – Bonding	.37	.20	.25	.21	.26	.20	.26	1											
9. Social Capital – Bridging	.32	.21	.20	.08	.14	.13	.14	.53	1										
10. Social Capital – Belonging	.31	.21	.22	.20	.20	.20	.19	.54	.57	1									
11. Social Capital – Safety	.34	.15	.25	.24	.15	.04	.29	.38	.30	.27	1								
12. Trust in Jewish community	.43	.31	.32	.37	.24	.29	.31	.32	.32	.42	.30	1							
13. Trust in Australian community	.38	.28	.29	.34	.22	.33	.26	.17	.28	.26	.28	.75	1						
14. Cultural Identity – Affirmation	.37	.21	.24	.12	.21	.16	.28	.58	.67	.66	.30	.27	.15	1					
15. Cultural Identity – Involvement	.29	.18	.19	.09	.16	.16	.22	.48	.74	.48	.29	.24	.17	.76	1				
16. Religious Identity	.27	.16	.15	.07	.11	.16	.05	.34	.54	.46	.13	.30	.20	.62	.57	1			
17. Jewish Activities – Observant	.10	.07	-.02	-.10	-.05	.05	-.10	.19	.45	.23	.11	.17	.14	.41	.47	.72	1		
18. Jewish Activities – Traditional	.15	.09	.06	-.11	-.04	-.02	-.01	.20	.51	.36	.11	.06	.07	.50	.53	.61	.62	1	
19. Jewish Identity	.20	.14	.15	.02	.09	.10	.14	.34	.59	.41	.19	.19	.15	.68	.68	.58	.45	.55	1

Comparing the present sample to normative Australian samples

To establish whether there are any differences in wellbeing between the Jewish sample and the general Australian population, the current study sample were compared to two other datasets. Comparative data for the variables in the homeostatic model were available from a longitudinal set collected as part of the Australian Unity Wellbeing Index. Initially, the Jewish sample was compared to the entire longitudinal dataset, although this comprised over 10,000 cases. During these analyses, significant differences were found between the two groups for the total PWI score, Primary Control, Secondary Control, and Self-Esteem. However, comparing the 271-strong Jewish sample to a sample of more than 10,000 cases introduces the problem of unequal variance between groups. Thus, a random sample of 300 cases was generated through SPSS from the larger database so as to create similar N values across groups. Following this, the analyses were performed again. All differences remained the same, except that the difference between the PWI total scores for the two samples failed to reach significance when the smaller sample size was used. Table 19 shows the means and standard deviations across the two samples for the Wellbeing variables.

Table 19:

Comparison of means and SDs of Wellbeing variables with longitudinal data

	Jewish sample (N = 271)		Australian sample (N = 300)		
Variable	Mean	SD	Mean	SD	ANOVA
Life as a Whole	75.21	14.90	75.37	18.58	F(1, 569) = .012, p = .912
PWI – Total Score	76.52	11.90	74.92	14.35	F(1, 550) = 2.007, p = .157
HPMood	73.77	13.10	74.17	17.30	F(1, 568) = .095, p = .759
Primary Control	75.48	13.44	73.02	15.37	**F(1, 567) = 4.090, p = .044**
Secondary Control	72.62	16.89	75.79	17.08	**F(1, 566) = 4.938, p = .027**
Optimism	67.56	17.76	69.44	19.43	F(1, 565) = 1.439, p = .231
Self-Esteem	81.13	13.60	77.99	14.46	**F(1, 566) = 7.054, p = .008**

The ANOVAs show that the Jewish sample appear to engage more in Primary Control and less in Secondary Control than the general Australian sample. The Jewish sample also has significantly greater Self-Esteem than the

general Australian sample. Since the variables that comprise the homeostatic model are known to be related, and since the Jewish sample was significantly younger, a MANCOVA was conducted using age as the covariate. Results revealed that after controlling for age differences, only Self-Esteem was significantly different between the two groups, F(1, 492) = 12.941, p=.000.

Domains of the PWI

Comparative data for the PWI domains were available from the 20th Australian Unity Wellbeing Survey. A random sample of 300 cases were selected from these data, which were obtained from a sample of 2000 people in the general Australian community around the same time as data were collected for the current study. Table 20 compares the means and standard deviations for each domain of the Personal Wellbeing Index.

Table 20:

Domains of the Personal Wellbeing Index

	Current study (N = 271)		AU Wellbeing Index (N = 300)		
Domain	Mean	SD	Mean	SD	ANOVA
Life as a Whole	75.21	14.90	76.77	16.50	F(1, 569) = 1.390, p = .239
Standard of Living	80.59	14.82	77.13	16.55	**F(1, 569) = 6.855, p = .009**
Health	76.38	17.28	72.77	20.48	**F(1, 569) = 5.144, p = .024**
Achieving in Life	73.30	18.39	73.33	18.65	F(1, 562) = .001, p = .981
Personal Relationships	75.06	19.01	78.45	22.50	F(1, 566) = 3.737, p = .054
Personal Safety	84.27	14.27	81.51	15.89	**F(1, 568) = 4.753, p = .030**
Feeling Part of the Community	76.25	17.31	70.47	20.08	**F(1, 568) = 13.431, p = .000**
Future Security	75.07	17.77	69.90	18.89	**F(1, 559) = 11.135, p = .001**
Spirituality or Religion	71.62	19.23	70.31	23.41	F(1, 531) = .506, p = .477
Total PWI Score	76.52	11.90	74.76	12.13	F(1, 548) = 2.933, p = .087

The overall PWI score is no different for the Jewish sample compared to the general Australian sample. However, the Jewish sample scored significantly higher on 5 of the 8 domains. Significant differences were found for the Standard of Living, Health, Personal Safety, Community, and Future Security domains, most of which are likely due to the higher income of the Jewish sample. To test whether this is in fact the case, income was used as a covariate in ANCOVAs for

the domains which showed significant differences in Table 20. Table 21 shows the adjusted and unadjusted means generated using Income as a covariate.

Table 21:

Unadjusted and adjusted means and SDs for the DV and covariate for selected domains

	Unadjusted		Adjusted	
	Mean	SD	Mean	Standard Error
Standard of living	78.72	16.09	78.72	.706
Health	74.50	19.15	74.50	.848
Personal safety	82.70	14.90	82.70	.666
Feeling part of the community	72.75	19.23	72.73	.850
Future security	72.08	18.77	72.05	.833
HPMood	73.77	13.10		

The results of the ANCOVA analyses using income as the covariate are shown in Table 22.

Table 22:

ANCOVA results using income as the covariate

		ANOVA	Partial eta squared
Standard of living	Survey	F(1, 490) = .627, p=.429	.001
	Income	**F(1, 490) = 19.539, p=.000**	.038
Health	Survey	F(1, 490) = .166, p=.684	.000
	Income	**F(1, 490) = 14.606, p=.000**	.029
Personal safety	Survey	F(1, 489) = .619, p=.432	.001
	Income	**F(1, 489) = 6.634, p=.010**	.013
Community	Survey	**F(1, 489) = 5.725, p=.017**	.012
	Income	**F(1, 489) = 6.846, p=.009**	.014
Future security	Survey	F(1, 483) = 2.680, p=.102	.006
	Income	**F(1, 483) = 11.729, p=.001**	.024

As shown in Table 22, when income was used as the covariate, the differences between the two samples for Standard of Living, Health, Personal safety, and Future security became insignificant. For each domain, the difference between the two samples was better accounted for by their income, with the partial eta squared values indicating a greater unique contribution of income for

each domain. The only domain where differences remained between the groups after accounting for income was Satisfaction with feeling part of your community, although income still contributed more unique variance than which sample participants belonged to.

Thus, it appears that the differences between the Jewish sample and the general Australian sample are mostly due to the difference in levels of income between the two groups. The single exception is for Satisfaction with feeling part of your community, which remained higher for the Jewish community.

To further explore the influence of income and the other demographic variables across the two samples, their scores for the PWI were compared based on income group, gender, age group, marital status, and household structure.

Demographic comparisons of the current study sample to Survey 20

INCOME

The data for income were originally grouped into 7 categories, ranging from "Less than $15,000" to "More than $500,000". In order to obtain higher N values and enable adequate comparisons between groups, the lowest 2 income brackets (Less than $15,000 and $15,000-$30,000) were combined to form a single category, "Less than $30,000". The highest 2 income brackets ($250,000 - $500,000 and More than $500,000) were combined to form the category "More than $250,000". Figure 3 compares the frequencies for each income group for the Jewish sample compared to the Survey 20 sample.

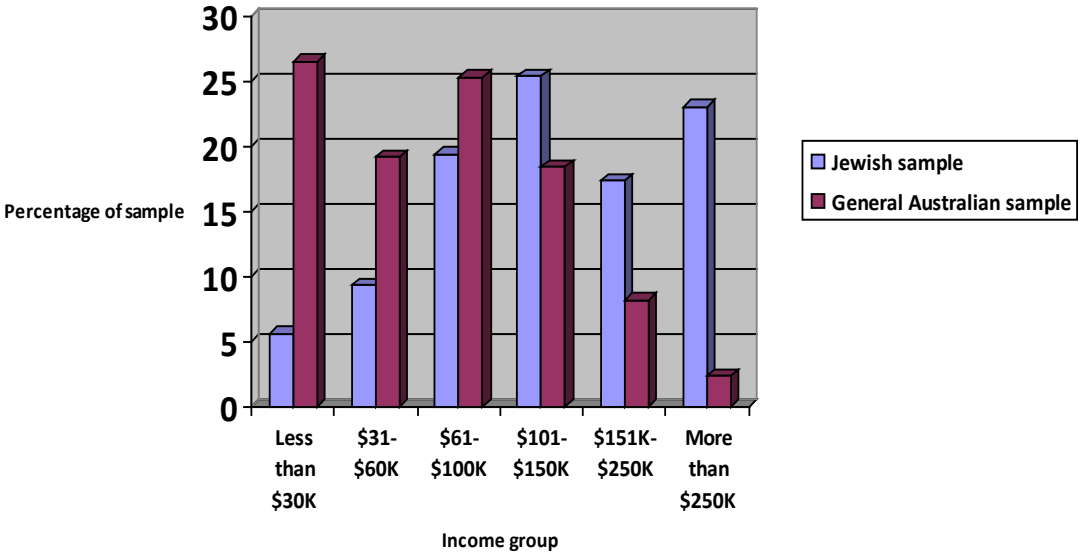

Figure 3: Comparison of frequencies of income group across Jewish and Australian samples

Figure 3 shows that the income of the Jewish sample is distributed towards the higher end of the scale as compared to the general Australian sample of Survey 20. Although the Jewish sample for this study appears much wealthier than the general Australian sample, it should be remembered that participants in the Jewish sample were partly recruited through private Jewish schools. That is, the sample comprises a select group of individuals who are wealthy enough to send their children to private schools, thus likely accounting for the differences found here.

Table 23 displays the means and standard deviations for the PWI based on reported annual household income, gender, age, household structure, and marital status.

Table 23:

Comparing the demographics of the Jewish sample to the general Australian sample

	Jewish sample			Survey 20 sample			
	N	Mean	SD	N	Mean	SD	ANOVA
Income							
< $30,000	14	72.41	15.38	59	68.84	15.49	F(1, 71) = .603, p = .440
$31K-$60K	23	72.07	14.76	44	76.72	9.51	F(1, 65) = 2.449, p = .122
$61K-$100K	48	72.58	14.43	58	75.76	10.47	F(1, 104) = 1.729, p = .191
$101K-$150K	62	77.84	10.65	44	74.81	8.93	F(1, 104) = 2.386, p = .125
$151K-$250K	42	79.61	8.57	20	79.79	12.53	F(1, 60) = .004, p = .950
> $251,000	57	78.51	10.68	6	76.90	10.59	F(1, 61) = .123, p = .728
ANOVA	**F(5, 240) = 3.068, p = .011**			**F(5, 225) = 4.053, p = .002** $31K -$60K > < $30K, p = .011 $61K - $100K > < $30 K, p = .020 $151K - $250K > < $30K, p = .005			
Gender							
Male	108	75.63	11.91	144	73.63	12.51	F(1, 250) = 1.633, p = .202
Female	161	77.12	11.90	137	75.95	11.64	F(1, 296) = .725, p = .395
ANOVA	F(1, 267) = 1.019, p = .314			F(1, 279) = 2.591, p = .109			
Age							
18-25	114	77.29	10.47	27	73.17	12.58	F(1, 139) = 3.116, p = .080
26-35	48	78.23	9.67	32	72.86	12.62	**F(1, 78) = 4.633, p = .034**
36-45	38	77.01	12.12	47	74.16	10.85	F(1, 83) = 1.299, p = .258
46-55	47	75.74	14.53	65	75.19	12.51	F(1, 110) = .047, p = .828
56-65	16	75.08	12.86	44	74.84	13.70	F(1, 57) = .004, p = .952
65 +	7	57.86	13.08	58	76.08	11.44	**F(1, 63) = 15.411, p = .000**
ANOVA	**F(5, 263) = 4.049, p = .001** 18-25 > 65+, p = .000 26-35 > 65+, p = .000 36-45 > 65+, p = .000 46-55 > 65+, p = .001 56-65 > 65+, p = .004			**F(5, 267) = .417, p = .837**			

	Jewish sample			Survey 20 sample			
	N	Mean	SD	N	Mean	SD	ANOVA
Household Structure							
Live alone	12	72.29	9.72	46	68.71	15.27	F(1, 50) = .583, p = .449
With your partner	37	76.69	13.75	99	77.05	10.91	F(1, 130) = .025, p = .874
With children	16	74.84	15.57	26	73.90	11.42	F(1, 40) = .051, p = .822
With partner and children	88	77.67	12.35	79	76.76	10.78	F(1, 161) = .246, p = .621
With parents	66	77.08	9.81	25	74.23	8.02	F(1, 88) = 1.634, p = .205
Other adults	48	76.12	10.40	21	68.57	15.88	**F(1, 64) = 5.093, p = .027**
ANOVA	F(5, 261) = .574, p = .720			**F(5, 272) = 4.271, p = .001** partner > alone, p = .003 partner & children > alone, p = .008			
Marital Status							
Never Married	116	76.65	10.01	43	69.63	14.33	**F(1, 157) = 12.021, p = .001**
De facto or living together	16	76.95	11.19	25	74.00	12.36	F(1, 39) = .598, p = .444
Married	122	77.51	13.09	159	77.48	10.22	F(1, 277) = .001, p = .980
Separated but not divorced	2	76.88	6.19	6	58.33	10.44	F(1, 6) = 5.309, p = .061
Divorced	9	65.28	14.72	26	74.23	12.21	F(1, 33) = 3.238, p = .081
Widowed	5	68.25	14.21	19	71.20	14.05	F(1, 22) = .174, p = .680
ANOVA	**F(5, 262) = 2.308, p = .045** Married > divorced, p = .034			**F(5, 272) = 6.213, p = .000** De facto > separated, p = .038 Married > never married, p = .001 Married > separated, p = .001 Divorced > separated, p = .032 Widowed > separated, p = .000			

Income

Although for the Jewish sample the ANOVA was significant at the .05 level, there were no significant post-hocs, indicating no differences for PWI based on income category. Survey 20 data show that PWI is lower for people earning less than $30,000 a year than for people in some higher income categories. This same finding might be missing for the Jewish sample due to the lower N (N = 14 for “Less than $30,000” income group).

Gender

For both samples, there were no differences between males and females on their PWI scores. Further, no differences across surveys were found for either gender.

Age

The average age for participants in the current study was 34.84 and standard deviation was 14.01. The mean and standard deviation for age in Survey 20 of the Australian Unity Wellbeing Index were higher (M = 49.18, SD = 19.66). For the current sample, those aged 65 and over have lower wellbeing than every other age-group. By contrast, older participants in Survey 20 report the highest wellbeing of all groups.

Household Structure

In the current study, there were no significant differences in PWI according to household composition. Survey 20 data showed that those who live alone were worse off than those living with partners or partners and children. The current study data show a much larger percentage of Jewish people living at home with their parents as compared to the general Australian population, although this could be due to the younger overall age of the sample. The only differences between groups were for those living with other adults, with the Jewish sample reporting higher PWI than the Australian sample.

Marital Status

In the Jewish sample, those who are divorced have a lower wellbeing than those who are married, despite small numbers of divorced participants. There were no other significant differences based on marital status. A much larger percentage of the current study sample were never married, although this is again

likely due to the lower overall age of the Jewish sample. Across the two data sets, the only significant difference was for those who were never married, with never married Jews reporting higher PWI than the general sample of never married individuals. It is likely that small N values for the Jewish sample were responsible for some of the other categories (e.g., separated but not divorced, divorced, and widowed) not reaching significance.

Summary of demographic differences between the Jewish sample and the Australian sample

Overall, comparing the Jewish sample to the Australian sample on demographic variables revealed no differences in PWI based on income group, or gender. Jewish 26-35 year olds report higher PWI than the general Australian sample of the same age group, and Jewish participants aged 65 and over report lower PWI than other older Australians. Jewish participants who live alone report higher PWI than their general Australian counterparts, as did never married Jews.

Having established that the wellbeing of the Jewish sample is quite similar to that of the general Australian sample, the focus now turns to exploring differences within the Jewish sample.

SURVIVOR STATUS

To investigate the impact of the Holocaust on the wellbeing of survivors and their descendants, participants were split according to their 'survivor status'. First, ANOVAs were conducted to test whether having a survivor as a parent or grandparent affected any of the variables. Table 24 presents the findings, based on the response to the question "Are you, or are/were any of your parents or grandparents survivors of the Holocaust?" As the five Holocaust survivors who participated in this study were shown to have very low PWI in the ANOVAs for "Age", they were removed from the following analysis.

Table 24:

Comparing scores on all variables for descendants of Holocaust survivors to non-descendants of Holocaust survivors within the Jewish sample

	Descendant of Survivor (N = 159)		Not descendant of survivor (N = 101)		
Variable	Mean	SD	Mean	SD	ANOVA
PWI – Life as a Whole	75.16	15.54	76.35	12.87	F(1, 260) = .420, p = .517
PWI – Total Score	76.87	12.88	77.25	8.99	F(1, 258) = .068, p = .795
HPMood	72.75	13.85	76.47	10.83	**F(1, 260) = 5.273, p = .022**
Optimism	67.55	16.87	68.75	19.02	F(1, 258) = .282, p = .596
Primary Control	77.12	13.50	74.62	11.56	F(1, 260) = 2.375, p = .125
Secondary Control	72.80	17.14	73.37	15.96	F(1, 260) = .073, p = .788
Self Esteem	80.92	13.70	82.34	12.70	F(1, 260) = .703, p = .403
SC – Bonding Subscale	75.13	17.73	71.03	19.57	F(1, 258) = 3.055, p = .082
SC – Bridging Subscale	67.35	23.34	64.22	22.26	F(1, 260) = 1.153, p = .284
SC – Belonging Subscale	71.03	20.12	71.99	19.61	F(1, 256) = .141, p = .707
SC – Safety Subscale	68.05	18.89	68.81	16.70	F(1, 260) = .109, p = .741
SC – Trust in the Jewish Community	64.18	18.31	68.22	16.99	F(1, 260) = 3.180, p = .076
SC – Trust in the Aust. Community	58.56	17.66	60.89	17.67	F(1, 259) = 1.076, p = .300
CI – Identity Affirmation	83.69	16.56	82.33	15.72	F(1, 257) = .428, p = .513
CI – Identity Involvement	76.62	18.15	70.30	18.55	**F(1, 255) = 7.258, p = .008**
Religious Identity	63.84	26.15	64.78	24.72	F(1, 260) = .084, p = .772
JA – Observant Jewish Activities	51.65	38.29	50.69	38.19	F(1, 260) = .039, p = .845
JA – Traditional Jewish Activities	88.48	17.47	89.13	15.52	F(1, 260) = .094, p = .759
Jewish Identity	83.81	18.23	82.62	16.43	F(1, 260) = .283, p = .595

According to Table 24, Jews who are descendants of survivors report lower HPMood, as a group, than those who are not descendants of survivors. This is so despite no differences on PWI or Life as a Whole. They also score higher on the Involvement subscale of Cultural Identity.

Participants were then divided according to whether they were first generation survivors, second generation survivors, or third generation survivors. Many participants who were children of survivors also reported that they were grandchildren of survivors. However, as they would have been exposed to any effects of the Holocaust primarily directly through their parents, they were

considered second generation survivors. The five first generation survivors' mean scores and standard deviations are reported in Table 25; however they were not included in the ANOVAs. Rather, second generation survivors were compared to third generation survivors and those who were not survivors or descendants of survivors.

Table 25:

Comparisons within the Jewish sample based on Survivor Status

	Survivor (N = 5)		Child of survivor (N = 51)		Grandchild of survivor (N = 111)		Not descendant of survivor (N = 104)		
Variable	M	SD	M	SD	M	SD	M	SD	ANOVA (excluding survivors)
PWI – Life as a Whole	58.00	23.87	73.33	17.74	75.77	14.56	76.36	12.78	F(2, 263) = .764, p = .467
PWI – Total Score	53.50	12.91	73.80	15.92	78.10	11.12	77.22	8.92	F(2, 261) = 2.457, p = .088
HPMood	56.67	16.83	70.95	15.98	73.39	12.82	76.38	10.68	**F(2, 263) = 3.394, p = .035** Not > child, p = .035
Optimism	48.67	13.46	66.80	17.88	67.73	16.47	68.65	18.85	F(2, 261) = .196, p = .822
Primary Control	50.93	18.05	73.46	16.12	78.59	11.99	74.33	11.74	**F(2, 263) = 4.164, p = .017** Grandchild > child, p = .049 Grandchild > not, p = .040
Secondary Control	51.33	21.03	74.25	16.51	71.98	17.44	73.53	15.77	F(2, 263) = .404, p = .668
Self Esteem	68.40	19.10	79.33	14.28	81.33	13.79	82.40	12.55	F(2, 263) = .897, p = .409
SC – Bonding Subscale	71.67	6.29	72.00	18.96	76.43	17.01	71.14	19.41	F(2, 260) = 2.421, p = .091
SC – Bridging Subscale	80.00	13.74	69.28	21.68	66.58	24.04	63.94	22.00	F(2, 263) = .985, p = .375
SC – Belonging Subscale	77.33	12.34	74.58	19.76	69.42	20.07	71.73	19.53	F(2, 259) = 1.214, p = .299
SC – Safety Subscale	49.17	3.19	63.14	19.10	70.36	18.35	68.53	16.65	F(2, 263) = 2.879, p = .058 Grandchild > child, p = .046
SC – Trust Jewish Community	46.00	25.10	66.27	14.83	63.28	19.63	68.17	16.88	F(2, 263) = 2.072, p = .128
SC – Trust Aust. Community	42.00	21.68	62.55	14.68	56.82	18.62	60.77	17.50	F(2, 262) = 2.343, p = .098
CI – Identity Affirmation	82.08	3.70	87.77	14.53	81.79	17.07	82.28	15.69	F(2, 260) = 2.605, p = .076
CI – Identity Involvement	70.00	11.61	80.39	14.66	74.71	19.36	70.21	18.52	**F(2, 258) = 5.434, p = .005** Child > not, p = .004
Religious Identity	54.00	25.65	71.81	25.88	60.32	25.50	65.22	24.56	**F(2, 263) = 3.716, p = .026** Child > grandchild, p = .020

Variable	Survivor (N = 5)		Child of survivor (N = 51)		Grandchild of survivor (N = 111)		Not descendant of survivor (N = 104)		ANOVA (excluding survivors)
	M	SD	M	SD	M	SD	M	SD	
JA – Observant Activities	31.25	23.14	67.40	35.10	44.71	37.67	51.27	38.43	**F(2, 263) = 6.407, p = .002** Child > grandchild, p = .001 Child > not, p = .033
JA – Traditional Activities	90.50	11.10	93.28	12.26	86.38	19.01	89.28	15.38	**F(2, 263) = 3.121, p = .046** Child > grandchild, p = .037
Jewish Identity	92.00	8.37	91.18	10.13	80.38	19.99	82.74	16.28	**F(2, 263) = 7.125, p = .001** Child > grandchild, p = .001 Child > not, p = .011

It is clear just from looking at the mean values that the 5 participants who are Holocaust survivors are still feeling the effects of their war-time experiences. They scored much lower than all other groups for each of the wellbeing variables and for the trust items. ANOVAs excluding the survivor group still showed some interesting differences, with children of survivors having lower HPMood than participants who weren't descendants of survivors. On the other hand, children of survivors have stronger cultural and religious identity, and participate more often in observant and traditional Jewish activities, culminating in an overall higher Jewish Identity score. This could possibly reflect a conscious effort on behalf of children of survivors to restore theirs (and their parents) religious faith following an event that caused many survivors to neglect all belief in God.

Second generation survivors

Children of survivors were then split according to whether they had one parent or both parents who were survivors. Figure 4 compares the means for these groups for the variables where significant differences were found:

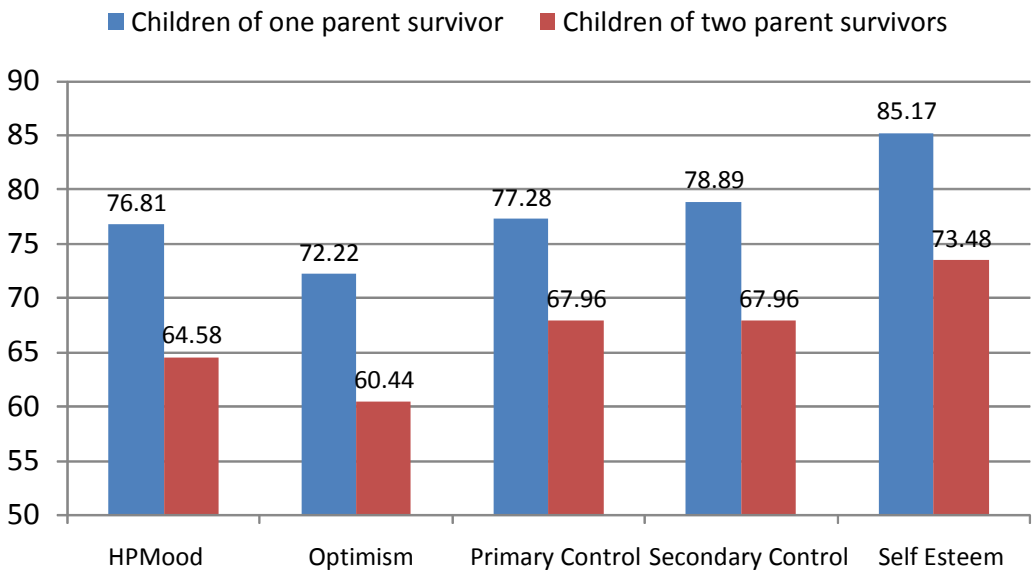

Figure 4: Comparisons between children of survivors who have one parent or both parents as survivors

**Note: For the above figure, N for one parent survivor = 24; N for both parents survivors = 31.*

It is clear from Figure 4 that having both parents as Holocaust survivors impacts on the wellbeing variables. It seems that the impact of being a child of a

Holocaust survivor is magnified when both parents are survivors. Those who have both parents as survivors (2PS) also have lower Bonding Social Capital and lowered trust in the Australian community than those who only have one parent (1PS) as a Holocaust survivor (Bonding Social Capital: M (2PS) = 66.33, SD = 17.86; M (1PS) = 79.94, SD = 16.53. Trust in the Australian community: M (2PS) = 57.74, SD = 13.59; M (1PS) = 66.25, SD = 16.63).

Covariate analyses with second generation survivors

Due to the finding that children of survivors had lower HPMood than non-descendants of survivors, HPMood was used as a covariate to confirm the other differences found between second generation survivors who had one parent survivor or two parent survivors. When HPMood was used as the covariate in these analyses, all significant differences previously identified became non-significant. It is clear that the lowered HPMood explains variance in these variables, over and above any effect of whether one or both parents were Holocaust survivors.

Table 26 displays the new p-values and partial eta squared values for Second Generation Survivor Status, when HPMood is included as the covariate. In each case, the effect of HPMood on the DV is significant at the .001 level, except for the Bonding subscale of Social Capital where it is significant at the .01 level.

Table 26:

New values generated for Second Generation Survivor Status when HPMood is used as the covariate

CV = HPMood *Variable*	Levene's test	Significance	Partial eta squared
Optimism	.387	F(1, 51) = .996, p = .323	.019 (HPMood = .346)
Primary Control	.836	F(1, 52) = .137, p = .713	.003 (HPMood = .364)
Secondary Control	.718	F(1, 52) = .907, p = .345	.017 (HPMood = .255)
Self-Esteem	.057	F(1, 52) = 1.406, p = .241	.026 (HPMood = .635)

CV = HPMood *Variable*	Levene's test	Significance	Partial eta squared
SC – Bonding	.164	F(1, 50) = 2.457, p = .123	.047 (HPMood = .177)
Trust in Aust community	.847	F(1, 52) = .409, p = .525	.008 (HPMood = .262)

Third generation survivors

Grandchildren of Holocaust survivors (GCH) were compared to participants who were not grandchildren of Holocaust survivors (NGCH). Children of survivors were left out of this analysis. The only significant differences found were for Primary Control, (GCH: M = 78.59, SD = 11.99; NGCH: M = 74.33, SD = 11.74) and the Bonding subscale of Social Capital (GCH: M = 76.43, SD = 17.01; NGCH: M = 71.14, SD = 19.41).

As children of two survivor parents appear to be an at-risk group, grandchildren with 4 Holocaust survivor grandparents (and thus two parents who were both children of two survivors) were compared to all other third generation survivors. Table 27 shows the findings for the major wellbeing variables:

Table 27:
Comparing Third Generation survivors with 4 grandparent survivors to other Third Generation survivors

	Third Gen Survivor (N = 80)		Third Gen with all grandparents survivors (N = 31)		
Variable	Mean	SD	Mean	SD	ANOVA
PWI total	79.34	11.51	74.88	9.48	F(1, 109) = 3.689, p = .057
HPMood	74.29	12.21	71.08	14.23	F(1, 109) = 1.411, p = .238
Optimism	69.62	16.29	62.90	16.21	F(1, 108) = 3.797, p = .054
Primary Control	79.71	11.56	75.70	12.77	F(1, 109) = 2.533, p = .114
Secondary Control	73.25	16.81	68.71	18.87	F(1, 109) = 1.521, p = .220
Self Esteem	83.50	13.33	75.74	13.58	**F(1, 109) = 7.493, p = .007**

Within the group of grandchildren of Holocaust survivors, those who were a grandchild of 4 Holocaust survivor grandparents scored lower on all wellbeing variables. However, statistical significance was only reached for Self-Esteem.

Table 28 shows comparisons between Third Generation participants with 4 grandparent survivors to those with no grandparent survivors.

Table 28:

Comparing Third Generation survivors with 4 grandparent survivors to other Jews who are not descendants of survivors

	Third Gen with all grandparents survivors (N = 31)		Not descendants of survivors (N = 104)		
Variable	Mean	SD	Mean	SD	ANOVA
PWI total	74.88	9.48	77.22	8.92	F(1, 133) = 1.603, p = .208
HPMood	71.08	14.23	76.38	10.68	**F(1, 133) = 5.008, p = .027**
Optimism	62.90	16.21	68.65	18.85	F(1, 133) = 2.362, p = .127
Primary Control	75.70	12.77	74.33	11.74	F(1, 133) = .313, p = .577
Secondary Control	68.71	18.87	73.53	15.77	F(1, 133) = 2.029, p = .157
Self Esteem	75.74	13.58	82.40	12.55	**F(1, 133) = 6.480, p = .012**

When grandchildren of 4 Holocaust survivors were compared to those who are not descendants of survivors, they report lower HPMood and lower Self-Esteem.

Covariate analyses with third generation survivors

Subsequent analyses using HPMood as a covariate confirm that the difference in Self-Esteem between the two groups is negated once HPMood is controlled for, F(1, 132) = 2.004, p=.159, partial eta squared = .015. HPMood explained more of the variance in Self-Esteem than whether or not the participant was a child of 4 survivor grandparents or none, with partial eta squared for HPMood = .411.

REGRESSIONS

To explore the structure of the PWI and the homeostatic model within the Jewish sample, a series of standard multiple regressions were performed. Since the PWI includes items which make a significant unique contribution to the prediction of Satisfaction with Life as a a Whole, the first regression explored the contributions of each domain of the Personal Wellbeing Index to the overall Satisfaction with Life as a Whole for the Jewish sample, and compares it to the

random sample of 300 participants taken from the Survey 20 sample. Table 29 displays the summary results.

Table 29:

Contributions of the Personal Wellbeing domains to Life as a Whole

	Jewish sample				Australian sample			
Predictor	r[a]	Beta[b]	sr[2c]	T	r[a]	Beta[b]	sr[2c]	T
DV: Life as *a Whole*								
Standard of Living	.62	.30	.06	6.36***	.59	.36	.09	6.93***
Health	.39	.02	.00	.43	.30	.02	.00	.48
Achieving	.66	.30	.05	5.91***	.49	.21	.03	4.12***
Personal Relationships	.65	.34	.07	7.05***	.49	.24	.04	4.61***
Personal Safety	.37	-.02	.00	-.33	.26	.07	.00	1.37
Community	.36	-.04	.00	-.78	.38	.04	.00	.68
Future Security	.45	.00	.00	.06	.32	-.02	.00	-.43
Spirituality or Religion	.40	.11	.01	2.37*	.31	.16	.02	3.45*
	R^2 = .641 Adjusted R^2 = .630				R^2 = .514 Adjusted R^2 = .498			

*Note: N = 271 for the Jewish sample; N = 300 for the Australian sample. [a] Zero-order correlation between domain and Life as a Whole. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

For both samples, the overall equation to predict Life as a Whole was significant (Jewish sample: R^2 = .64, F(8, 260) = 58.073, p = .000; Australian sample: R^2 = .51, F(8, 247) = 32.606, p = .000). The domains of Standard of Living, Achieving, Personal Relationships and Spirituality or Religion were significant unique contributors to Life as a Whole for both samples. While in larger samples all domains contribute unique variance to Satisfaction with Life as a Whole, it appears that with smaller N values, only some domains make significant contributions.

In order to find support for the homeostatic model, the next analysis explored the contributions of HPMood and the "Buffer variables" to Life as a Whole and the overall SWB.

Table 30:

Contributions of HPMood and the buffer variables to Life as a Whole and PWI total

Predictor	r[a]	Beta[b]	sr[2c]	t
DV: Life as *a Whole*				
HPMood	.73	.63	.18	10.55***
Optimism	.45	-.05	.00	-.86
Primary Control	.49	.11	.01	2.05*
Secondary Control	.47	.14	.01	2.75**
Self Esteem	.54	.01	.00	.25
	R^2 = .569		Adjusted R^2 = .561	
DV: SWB				
HPMood	.77	.61	.17	10.86***
Optimism	.53	.04	.00	.76
Primary Control	.53	.18	.02	3.58***
Secondary Control	.41	-.03	.00	-.54
Self Esteem	.60	.09	.00	1.53
	R^2 = .627		Adjusted R^2 = .620	

*Note: N = 269. [a] Zero-order correlation between domain and Life as a Whole. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

The overall equation to predict Life as a Whole was significant; R^2 = .57, F(5, 263) = 69.399, p = .000. HPMood, Primary and Secondary Control were significant unique contributors. The overall equation for the SWB was also significant, R^2 = .63, F(5, 261) = 87.658, p = .000, however only HPMood and Primary Control were significant unique contributors.

Interestingly, when Jewish Identity was included in the model to explore the relationship between ethnic identity and SWB, the six variables accounted for 62.6% of variance. Jewish Identity joins HPMood and Primary Control as a significant unique contributor.

Table 31:

Regression of six items on SWB

	r^a	$Beta^b$	sr^{2c}	T
DV: SWB				
HPMood	.77	.60	.17	10.66***
Optimism	.53	.05	.00	1.01
Primary Control	.53	.18	.02	3.60***
Secondary Control	.41	-.03	.00	-.64
Self Esteem	.60	.08	.00	1.40
Jewish Identity	.20	.09	.01	2.27*
	$R^2 = .634$		Adjusted $R^2 = .626$	

Social Capital data

Multiple regressions were then conducted using the data gathered for Social Capital. To determine whether Social Capital, as conceptualised in the current study, actually predicts trust, the four social capital variables (Bonding, Bridging, Belonging and Safety) were regressed onto each of the two Trust items. Table 32 displays the summary results.

Table 32:

Contributions of the social capital variables to the Trust items

Predictor	r^a	$Beta^b$	sr^{2c}	T
DV: Trust in Jewish community				
Bonding	.32	.03	.00	.41
Bridging	.35	.12	.01	1.62
Belonging	.43	.31	.06	4.33***
Safety	.29	.16	.02	2.71**
F(4, 257) = 18.988, p = .000				
	$R^2 = .228$		Adjusted $R^2 = .216$	
DV: Trust in Australian community				
Bonding	.17	-.10	.01	-1.36
Bridging	.30	.22	.03	2.85**
Belonging	.26	.14	.01	1.84
Safety	.27	.21	.04	3.28**
F(4, 256) = 10.435, p = .000				
	$R^2 = .140$		Adjusted $R^2 = .127$	

*Note: N = 261. [a] Zero-order correlation between domain and Life as a Whole. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

Although there are significant unique contributors to both Trust in the Jewish community and Trust in the Australian community, the overall adjusted R^2 values indicate that these Social Capital variables have not accounted for much of the variance in the Trust items.

To determine whether Social Capital can be better explained by the domain in the PWI which considers Satisfaction with feeling part of your community, the Social Capital subscales were then regressed onto this item. Table 33 shows these results.

Table 33:

Contributions of the social capital variables to Satisfaction with feeling part of your community

Predictor	r[a]	Beta[b]	sr[2c]	T
DV: Satisfaction with feeling part of your community				
Bonding	.53	.21	.03	3.46**
Bridging	.58	.32	.06	5.28***
Belonging	.53	.21	.03	3.53***
Safety	.32	.09	.01	1.70
F(4, 257) = 49.651, p = .000				
		R^2 = .436		Adjusted R^2 = .427

Together, the four social capital subscales accounted for 42.7% of the variance in satisfaction with feeling part of the community. In comparison to the two trust items, it appears that the question "How satisfied are you with feeling part of your community" is a better indicator of social capital than one's level of agreement or disagreement with "Most people in the Jewish/Australian community can be trusted".

Having established that social capital and trust are not as intertwined as originally thought, the relationship between social capital and SWB was then explored to see whether Social Capital added anything new to the understanding of SWB beyond what is already understood by the homeostatic model. An hierarchical regression was performed, with HPMood entered at Step 1, followed

by the cognitive buffers in Step 2, followed by the Social Capital subscales. Table 34 shows the results of this analysis.

Table 34:

Hierarchical regression to predict SWB incorporating the Social Capital variables

Predictor	r[a]	Beta[b]	sr[2c]	T
DV: SWB				
Step 1				
HPMood	.77	.77	.59	19.55***
	R^2 = .595		Adjusted R^2 = .594	
Step 2				
HPMood	.77	.61	.17	10.79***
Optimism	.53	.04	.00	.75
Primary Control	.54	.18	.02	3.67**
Secondary Control	.41	-.03	.00	-.57
Self Esteem	.61	.09	.00	1.51
F Change (4, 256) = 5.947, p=.000	R^2 = .630		Adjusted R^2 = .632	
	R^2 Change = .034			
Step 3				
HPMood	.77	.58	.15	10.57***
Optimism	.53	.03	.00	.67
Primary Control	.54	.16	.02	3.40**
Secondary Control	.41	-.02	.00	-.44
Self Esteem	.61	.06	.00	1.07
Bonding	.37	.08	.00	1.63
Bridging	.32	.09	.00	1.91
Belonging	.31	.03	.00	.54
Safety	.34	.08	.01	1.98*
F Change (4, 252) = 7.413, p=.000	R^2 = .669		Adjusted R^2 = .657	
	R^2 Change = .039			

Table 34 reveals that when the Social Capital subscales were added to the homeostatic model to predict SWB, an additional 3.9% of variance was explained. Safety emerged as the only significant unique contributing variable of the Social Capital subscales. Since “Satisfaction with your personal safety” is one of the domains of the PWI which was used to measure SWB and may therefore

have influenced these findings, the same variables used in Table 34 were regressed onto Satisfaction with Life as a Whole.

Table 35:

Hierarchical regression to predict Life Satisfaction incorporating the Social Capital variables

Predictor	r[a]	Beta[b]	sr[2c]	T
DV: Life as a Whole				
Step 1				
HPMood	.73	.73	.54	17.38***
	R^2 = .537		Adjusted R^2 = .536	
Step 2				
HPMood	.73	.63	.18	10.41***
Optimism	.45	-.05	.00	-.87
Primary Control	.49	.11	.01	2.01*
Secondary Control	.47	.14	.01	2.75**
Self Esteem	.54	.01	.00	.23
F Change (4, 256) = 4.932, p=.001	R^2 = .571		Adjusted R^2 = .562	
	R^2 Change = .033			
Step 3				
HPMood	.73	.62	.17	10.12***
Optimism	.45	-.04	.00	-.63
Primary Control	.49	.11	.01	2.06*
Secondary Control	.47	.13	.01	2.49*
Self Esteem	.54	.03	.00	.45
Bonding	.20	-.05	.00	-.91
Bridging	.21	.09	.00	1.63
Belonging	.21	.01	.00	.22
Safety	.15	-.04	.00	-.88
F Change (4, 252) = .998, p=.409	R^2 = .577		Adjusted R^2 = .562	
	R^2 Change = .007			

Table 35 reveals that when the Social Capital variables were added to the prediction of Life Satisfaction after the variables in the homeostatic model were accounted for, no further variance was explained.

Jewish Identity data

To attempt to establish the main contributors to what comprises the "Jewish Identity", the cultural, religious, and performance of Jewish activities items were

regressed onto the "Strength of Jewish Identity" item. An hierarchical regression was conducted, as Cultural and Religious Identities are believed to be the forerunners of Jewish Identity. Frequency of performance of Jewish Activities was then entered at Step 2. Table 36 shows the summary statistics.

Table 36:

Hierarchical regression showing the contributions of cultural and religious identities, and performance of Jewish activities onto strength of Jewish Identity

Predictor	r[a]	Beta[b]	sr[2c]	t
DV: Jewish Identity				
Step 1				
Cultural Identity – Affirmation	.68	.30	.03	4.42***
Cultural Identity – Involvement	.68	.33	.04	5.09***
Religious Identity	.58	.20	.02	3.66***
F(3, 258) = 105.245, p = .000	R^2 = .550		Adjusted R^2 = .545	
Step 2				
Cultural Identity – Affirmation	.68	.30	.03	4.29***
Cultural Identity – Involvement	.68	.29	.03	4.37***
Religious Identity	.58	.13	.01	1.79
Observant Jewish Activities	.45	-.01	.00	-.15
Traditional Jewish Activities	.55	.18	.02	3.14**
F Change(2, 256) = 5.355, p = .005	R^2 = .568		Adjusted R^2 = .560	
		R^2 Change = .018		

The cultural and religious identity variables contributed significant unique variance to Jewish identity, and together accounted for 55% of the variance. Both Cultural variables and the Religious variable contributed significant unique variance. However, when the Traditional Jewish Activities were added to the model a better model fit was obtained, and Traditional Jewish Activities took over from Religious Identity as a significant unique contributor. Thus, Jewish Identity can be best predicted by Cultural and Traditional variables.

CHAPTER 6: STUDY 1 DISCUSSION

The two major aims of this study were to compare the wellbeing of the Australian Jewish population to a general Australian sample, and to explore wellbeing within the Jewish sample, with a focus on Holocaust survivors and their families. Overall, the wellbeing of the Jewish population was no different to the general Australian sample, although they scored higher on five of the eight PWI domains. The Jewish sample was younger, and yet reported higher annual income than the general sample, which accounted for the higher scores on all but one of the domains. Comparatively, the Jewish sample did however, record higher Self Esteem, and showed a preference for Primary Control tactics over Secondary Control. In addition, the older Jews in the sample reported the lowest wellbeing of all, in stark contrast to the older adults in the general Australian sample who record very high wellbeing. Further exploration revealed that the majority of the older Jews were Holocaust survivors, and their scores accounted for the lower wellbeing of their age group.

Within the Jewish sample, children of Holocaust survivors recorded lower HPMood than those who were not descendants of survivors. This finding provides evidence of an intergenerational transmission of trauma, supporting the claims of many authors (e.g., Sorscher & Cohen, 1997; Beck, Gow, & Liossis, 2005; Weiss & Weiss, 2000; Kellerman, 2001a; 2001b; Yehuda, Halligan, & Bierer, 2001; Baranowsky, Young, Johnson-Douglas, Williams-Keeler, & McCarrey, 1998; Schwartz, Dohrenwend, & Levav, 1994). Upon further investigation it was revealed that, in particular, children of two parent Holocaust survivors scored lower on almost all of the wellbeing indices than those who were children of one parent survivor. Covariate analyses revealed that the lower HPMood in children of two parent survivors was responsible for the differences found on the other wellbeing variables. These findings support the claim by Kellerman (2001a) that children of Holocaust survivors are at increased risk for secondary traumatisation when they have both parents who are survivors. Perhaps even more interestingly, Kellerman's suggestion was based on instinct, from his personal experiences of working with children of survivors in clinical settings. The current study findings confirm his claim in a sample of non-clinical Australian Jews.

This study was also designed to test a number of hypotheses that are as follows: 1. Jewish wellbeing will be similar to wellbeing in the general Australian population, although the domains that contribute to wellbeing will differ; 2. (a) HPMood will account for the majority of variance in SWB, with the cognitive buffers playing a subsidiary role; (b) Jewish identity will contribute additional explanatory variance to the prediction of SWB beyond the variables already included in the homeostatic model; and (c) Social Capital will be associated with SWB, but will not add to the prediction of it beyond the buffers already in the homeostatic model, and the demographic variables that are known to predict SWB. 3. Children of Holocaust survivors and grandchildren of Holocaust survivors will report lower wellbeing than those who are not descendants of survivors.

Hypothesis 1: Jewish wellbeing will be similar to wellbeing in the general Australian population, although the domains that contribute to wellbeing will differ.

When the Jewish sample was compared to the sample recruited for the 20th survey of the Australian Unity Wellbeing Index, subjective wellbeing in the Jewish sample was not significantly higher, nor was satisfaction with life as a whole any different. Although five domains of the PWI were higher in the Jewish sample than in the Australian sample, their higher income was found to account for these differences, except for Satisfaction with feeling part of your community. Thus, the Jewish sample reported higher Satisfaction with feeling part of their community even after their higher income was considered. It is likely that when the Jewish participants were questioned about their sense of community they interpreted it to refer to the Jewish community. With this smaller frame of reference than the general Australian sample, it is understandable that Jewish people may feel more like they belong and are a part of their Jewish community. Further, as the majority of Jewish children attend Jewish high schools, and/or are involved in Jewish youth groups or sporting clubs, it is plausible that a strong sense of community is expected to follow on from these associations. This satisfaction with feeling part of their community did not, however, contribute unique variance to satisfaction with life as a whole.

Only four domains contributed unique variance to Satisfaction with Life as a whole for the Jewish sample, contrary to the PWI guidelines which state that the scale is constructed such that each domain contributes unique variance (IWBG, 2006). These guidelines are not always met, however, with the domain of Satisfaction with Safety often not contributing unique variance in general Australian, Algerian, and some Asian samples (Cummins et al., 2009; Tiliouine, Cummins, & Davern, 2006; Lau, Cummins, & McPherson, 2005). Cummins (2010) suggests that under normal circumstances, each domain will only contribute little unique variance as HPMood underlies respondents' satisfaction with the domains, causing much shared variance to be explained. This appears to have been the case for the current sample. Thus, to explore whether the 4 domains which contribute for the Jewish sample are an accurate reflection of the general Australian sample, the same analysis was conducted on a sample of 300 random cases from the Survey 20 sample. The same four domains emerged as significant unique contributors. It appears that for both samples, there is little unique variance to be explained by the individual domains as HPMood is dominating SWB.

For the Jewish sample, Satisfaction with Personal Relationships emerged as the strongest contributor, followed by Satisfaction with Standard of living, Satisfaction with Achievements, and Satisfaction with Spirituality/religion. For the Australian sample, Standard of living was the strongest contributor, followed by Personal relationships, Achievements, and Spirituality/religion. Thus, hypothesis 1 was, for the most part, supported. Jewish wellbeing was similar to wellbeing in the general Australian population, and while the domains that contributed to overall life satisfaction did not differ, the relative strength of the domain contributions varied slightly. Personal relationships were of greater influence for the Jewish sample, whereas Standard of living was the most influential contributor for the Australian sample.

Hypothesis 2a: HPMood will account for the majority of variance in SWB, with the cognitive buffers playing a subsidiary role.

HPMood accounted for the majority of variance in SWB, partially supporting Hypothesis 2a. The contribution of the buffer variables was minimal,

with only Primary Control contributing unique variance to SWB. It is clear that HPMood is the primary driver of wellbeing, supporting the Davern, Cummins, and Stokes (2007) study, and providing further support for the homeostatic model (Cummins, 2010). The buffer variables may not have contributed significantly here because the vast majority of the sample had a wellbeing score that lay within the normal range. The buffer variables are believed to be important in the case of homeostatic defeat (Cummins & Nistico, 2002; Cummins 2010). Since there were only a few scores that would be low enough to claim homeostatic failure, it was not possible to perform a multiple regression on these items and to determine the significance of the buffer variables.

Hypothesis 2b: Jewish identity will contribute additional variance.

When Jewish identity was included in the model to predict PWI, it contributed unique variance and increased the total amount of variance explained. The importance of Jewish identity is supported by the findings of Goldberg and O'Brien (2005) who illustrated that it negatively predicted psychological distress in adolescent Jewish women, and Dubow et al. (2000) who found that Jewish identity may act as a coping resource for Jewish adolescents. Identifying with a strong and cohesive Jewish community may act to buffer wellbeing as it contributes to an individual's positive self-concept, as Tajfel and Turner (1979) put forth in their Social Identity theory. Thus, hypothesis 2b was supported. The variable included in the regression equation to predict SWB was the participants' overall ratings of the strength of their Jewish Identity. To establish what a "Jewish Identity" represents, further analyses were conducted using the Religious Identity and Cultural Identity variables.

When only cultural and religious identities were included in a model to predict Jewish identity, both contributed significant unique variance to the explanation of Jewish identity, supporting Amyot and Sigelman's (1996) recommendation that both aspects should be used to measure Jewish Identity. However, once Jewish activities were included in the model, the effect of religious identity was drastically reduced. It seems that performance of traditional Jewish activities, such as lighting Hanukkah candles and attending Passover Seders are more important to one's Jewish identity than their level of religious

belief. This suggests that Jewish identity is more of a cultural/traditional construct than a cultural/religious one. So, whilst Jewish identity can be predicted by both cultural and religious identities, it is better predicted by cultural identity in combination with adherence to traditional Jewish activities.

Hypothesis 2c: Social Capital will be associated with SWB, but will not add to the prediction of it beyond the buffers already in the homeostatic model, and the demographic variables that are known to predict SWB.

Before investigating the relationship between Social Capital and SWB, the conceptualisation of Social Capital as reflecting "trust" was first explored. Four subscales of social capital were found, and they each showed only modest correlations with the two trust items (trust in the Jewish community and trust in the Australian community). The standard multiple regressions revealed that only two of the Social Capital subscales significantly predicted Trust. Overall, Social Capital did not explain much of the variance in Trust. This finding contradicts the idea that Social Capital can be best measured by assessing general Trust. It could perhaps be the case that Trust is an element of Social Capital, but Social Capital is not an element of Trust, at least at the community level. The suggestion that trust is an outcome of social capital belonged to Coleman (1988). However, Coleman considered Social Capital at the familial level, whereas the current study considered Social Capital and Trust at the community level.

When social capital was conceptualised at the community level, Putnam (1993) suggested that participation in community activities enhanced people's trust in each other. Consistent with this idea, Bridging Social Capital did significantly predict Trust in the Australian community, though not Trust in the Jewish community. Considering that the Social Capital items were specifically assessing Social Capital within the Jewish community, it is not clear why there is a stronger association between Bridging Social Capital and Trust in the Australian community than with Trust in the Jewish community. It would make more theoretical sense if partaking in Jewish community activities predicted greater Trust in the Jewish community.

Although the findings regarding Trust and Social Capital in the current study fail to coincide with the literature and previous research, this is perhaps due

to the fact that these variables have most commonly been assessed at more specific and defined levels, such as individual and family.

At the broader community level assessed in the current study, the abstract and non-specific nature of 'community trust' may have been too difficult for participants to comprehend, and may explain why no stronger relationship between Trust and Social Capital was found here. Thus, even though individuals may engage in local community activities, this may not affect their Trust in larger community circles.

Despite finding that Trust and Social Capital are not as united as theory suggests, Trust did show a moderate correlation with wellbeing. People who reported greater trust in the Jewish and Australian community scored higher on all of the wellbeing variables than those reporting lower trust. This finding is consistent with Delhey and Newton (2003) and Uslaner (1999) who noted that optimism, control and more strongly, wellbeing, are associated with general trust.

Although higher trusters have higher wellbeing, as indicated by the moderate positive correlations between these two variables, the direction of cause is uncertain. It remains unclear whether greater trusting leads to greater wellbeing or whether greater wellbeing results in greater trust. What is revealed from this study is that including the Social Capital subscales in the prediction of SWB added explained variance. While this seems to provide support for the importance of Social Capital to understanding SWB, the results must be interpreted with caution. The only subscale which added unique variance was the Safety subscale, and it only barely reached statistical significance. Since "Satisfaction with your personal safety" is one of the elements of SWB in the current study, it is not entirely surprising that the Safety subscale of Social Capital predicts some of SWB. As such, the current findings are not convincing enough to draw any reasonable conclusions concerning the impact of Social Capital for SWB. Indeed, when these variables were regressed onto overall Life Satisfaction, the Social Capital variables added no further explanatory variance. Thus, hypothesis 2c was supported. Social Capital was associated with SWB (as evidenced by the correlational analyses), although its contribution to SWB was questionable, and it did not add to the prediction of life satisfaction.

As an extension of these results, it is possible that conceptualising social capital as trust might be misguided. The current study defined trust in terms of how much individuals trust others in their communities. As such, social capital was thought to belong to those who are trusting. However, recent research has suggested that perhaps the reverse is true. A review of trust and social networks by Castelfranchi, Falcone, and Marzo (2006) claimed that in a social relationship, it is the person who is trusted, rather than the trustor, who holds the power. These authors noted that when one is trusted, they are more likely to be selected for future exchanges and have greater negotiating power. Perhaps then, the reason that trust and social capital show limited association in the current study has to do with the fact that trust was measured in terms of the trustor, not the trusted.

Hypothesis 3: That children of Holocaust survivors and grandchildren of Holocaust survivors will report lower wellbeing than those who are not descendants of survivors.

When participants were split according to whether or not they were a descendant of a Holocaust survivor, it was revealed that, as a group, descendants of survivors had significantly lower HPMood than those who were not. This finding suggests that the impact of trauma which occurred over 65 years ago may still affect the general mood and disposition of its victims and their offspring. This finding supports the idea of an intergenerational transmission of trauma, and specifically confirms the findings of Kellerman (1999) and Gottschalk (2003) who also found disturbances in affect in their children of survivor samples. Descendants of survivors did not, however, report lower scores on the PWI or Satisfaction with Life as a Whole. Thus, hypothesis 3 was not supported. Children and grandchildren of survivors as a whole did not report lower wellbeing than those who are not descendants of survivors. However, their lower HPMood may indicate vulnerability in this group to experiencing lower SWB, and warranted further exploration.

When the ‘survivor status’ was separated into those who were survivors themselves, children of survivors, grandchildren of survivors, and not descendants of survivors, further interesting features of this population were evident.

Holocaust survivors

Despite not being included in the ANOVAs due to their small numbers, it is evident that survivors reported lower scores on all the wellbeing variables. This finding reaffirms that of Shmotkin and Lomranz (1998) whose Holocaust survivor participants reported lower subjective wellbeing. It is also consistent with the findings of Ben-Zur and Zimmerman (2005) who reported lower everyday functioning for Holocaust survivors. Survivors' scores on the social capital scales did not appear to be as markedly different, except for the Safety subscale on which they recorded much lower scores. This implies that although survivors feel a strong connection to their Jewish community, they still have issues concerning their personal safety, which is likely a reflection of their lowered general trust. It seems that Garland's (1993) claim that survivors had lost all basic trust is somewhat confirmed.

In terms of their identity, Holocaust survivors report low scores on the Religious Identity scale and report lower adherence to observant Jewish activities. It is not difficult to understand why these individuals may have reason to neglect their religious faith following an event such as the Holocaust. Undoubtedly the trauma they experienced would have caused them to question their belief in a God. Survivors' overall Jewish Identity remains high in spite of this, probably as a result of the salience of their Jewish identity in their life history. These are individuals who were persecuted specifically because of their Jewish identity, so awareness of it is likely to be at the forefront of their minds.

Children of Holocaust survivors – the second generation

Children of survivors expressed higher scores for all bar one of the Identity variables. They scored higher than other groups on the Involvement subscale of Cultural Identity, Religious Identity, Observant Jewish Activities, Traditional Jewish Activities and overall Jewish Identity. These findings support those of Halik, Rosenthal, and Pattison (1990) and Russell, Plotkin, and Heapy (1985) who found increased sense of identity in offspring of survivors. It contrasts with the findings of Sorscher and Cohen (1997) who found no differences between survivors' offspring and offspring of non-survivors on ethnic identity measures. The present finding that children of survivors score higher on the Involvement

subscale could reflect a tendency for these individuals to put more of an effort into enhancing their cultural identity by taking an active involvement in cultural events and activities. It is possible that the experience of being a descendant of a Holocaust survivor forces these individuals to be more conscious of their cultural identity and more attuned to maintaining it.

The stronger adherence to religion, and observant and traditional Jewish activities of children of survivors, might result from learning of their parents' pre-wartime family life. The Eastern European Jewish communities were largely observant Jews, and it is possible that children of survivors are "going back to their roots", in an attempt to recreate a more religious and observant environment for their own parents that is more similar to what they were used to before the Holocaust. This finding might also reflect a different perspective adopted by children of survivors. While survivors themselves might have lost their faith due to the trauma they experienced, children of survivors might feel thankful that their parents survived at all. The second generation may see it as a miracle that their parents managed to survive and give them life, and they might feel a greater belief in God as a result.

The most interesting of all findings relate to the children of Holocaust survivors in this study. When children of survivors were divided into those who had one parent survive and those who had two parents survive, the differences are marked. Individuals who were children of two Holocaust survivors reported lower scores on almost all of the wellbeing indices. In addition, they reported lower PWI and lower Satisfaction with Life as a Whole, although these statistics just failed to reach significance levels of $p<.05$ (For PWI, $p = .095$ and for Life as a Whole $p = .054$). It appears that being a child of two Holocaust survivor parents magnifies the impact the parents' trauma has on the second generation. With these results, it can now be hypothesised that what is transmitted to the second generation is lowered HPMood. If this is so, it begs the question of how lower HPMood is transmitted from parents to their children. This question forms the basis for the next study and will be more thoroughly addressed in the next chapter.

Grandchildren of Holocaust survivors – the third generation

Grandchildren of survivors had higher Primary Control than both other groups, and felt a greater sense of Safety in their community than their parents (although the overall ANOVA did not prove significant, most likely due to lack of power). Unlike children of survivors, grandchildren of survivors scored lower on almost all aspects of Jewish Identity. They reported lower religious identity, less frequent adherence to both observant and traditional Jewish activities, and lower overall identity strength. These findings suggest that although children of survivors may have protected their own children (grandchildren of survivors) from some of the effects of being a descendant of a survivor, they have, at the same time, failed to pass on their sense of identity at this stage of their children's lives.

Grandchildren of survivors, as a group, expressed little differences on most variables compared to those who were not descendants of survivors, except that they expressed higher Primary Control. Perhaps, knowing the struggles that their own grandparents endured, and hearing their stories of survival under the toughest circumstances, the third generation might feel that they certainly have the capacity to cope with pressures in everyday life.

Since the impact of the Holocaust on the second generation was magnified when both parents were survivors, the influence of the number of grandparents who survived the Holocaust was explored for the third generation. At first glance, there were no differences in SWB for the third generation if they had one, two, three or four grandparents who survived. It appears from these findings that children of survivors have succeeded in not transferring the negative impact that being a descendant of a Holocaust survivor had on them to their children. If anything, they have actually brought up children who have developed stronger coping methods, and stronger bonds within their community.

The complex model of risk, proposed by Scharf (2007) was then tested. Scharf's model suggested that effects for the psychosocial functioning of the 3rd generation may not be found based on the number of grandparents who survived, but rather, may be dependent on which grandparents survived. For example, Scharf proposed that an individual belonging to the 3rd generation may be at risk

if they had both grandmothers who were survivors. As such, there would be effects of the Holocaust passed down through both their maternal and paternal lineage. The following figure gives an example of Scharf's complex model of risk. In this figure, both 3rd generation members have 2 grandparents who survived the Holocaust. However, according to Scharf, the latter is more likely to be at risk because the effects of the Holocaust for them are being passed down through both maternal and paternal lines, as opposed to the former who is only exposed to the Holocaust effects from their maternal side.

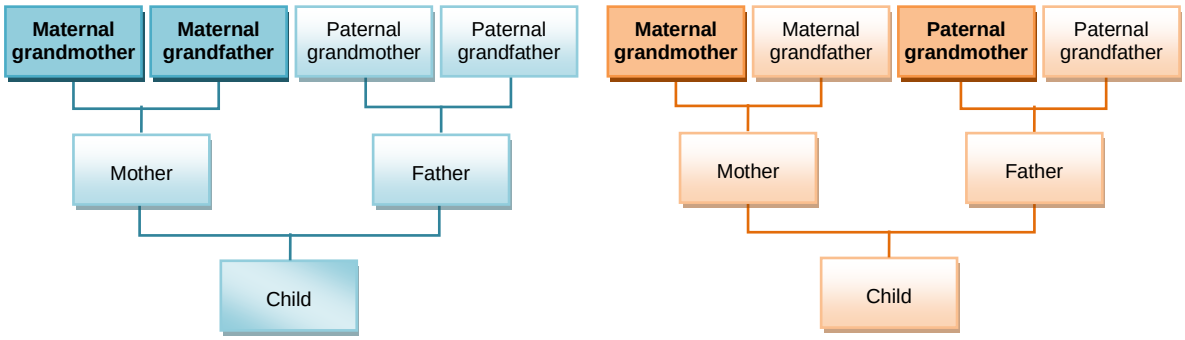

Figure 5: Scharf's (2007) complex model of risk

When the complex model of risk was explored for the present sample, 3rd generation members who had Holocaust survivor grandparents on both sides of their lineage did appear to score lower on the wellbeing variables than other 3rd generation participants, although none of these findings reached statistical significance. Thus adequate support for Scharf's (2007) contention was not found. However, since the current study revealed that effects for the 2nd generation were only evident when they had both parents who were survivors, 3rd generation members who had all grandparents who were survivors (as represented in Figure 6) were compared to all other 3rd generation members, and were found to have lower Self Esteem. Further, when these 3rd generation participants were compared to other Jews who were not descendants of survivors, they reported both lower HPMood and lower Self Esteem. As was discovered for the second generation, covariate analyses showed that the lower Self-Esteem was due to the lower HPMood.

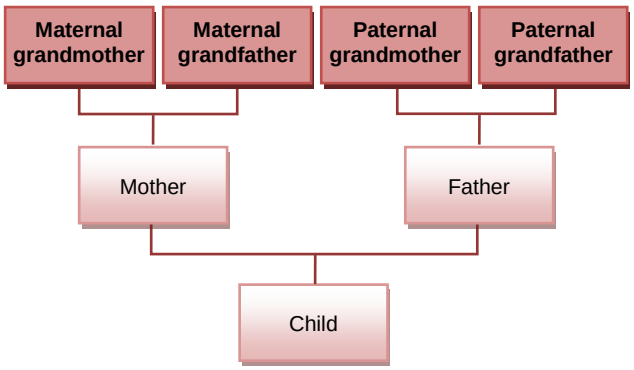

Figure 6: Representation of a 3rd generation survivor who had 4 Holocaust survivor grandparents

In conclusion, this study was able to detect some effects of the Holocaust on the SWB of grandchildren of survivors, but only when all 4 grandparents are Holocaust survivors. It appears that the transgenerational transmission of trauma to the third generation most clearly occurs for individuals who have 4 grandparents who survived the Holocaust. It should be remembered that there were small numbers of respondents in each group when participants were categorised for these analyses, and thus, larger numbers of respondents could possibly reveal a more sensitive analysis.

Conclusions of Study 1

In summary, Study 1 reveals evidence for the transgenerational transmission of trauma down to the second and even the third generation of Holocaust survivors. However, rather than all descendants of Holocaust survivors being affected by their parents and grandparents experiences, it appears that only those who had 2 parents survive the Holocaust, or who had all 4 grandparents survive the Holocaust, bear the scars of the wartime trauma. Furthermore, Study 1 revealed that what is transmitted from one generation to the next is lower HPMood. Lower HPMood then affects other aspects of their wellbeing, including their Self-Esteem. The next chapter will consider how the effects of trauma, and hence lower HPMood, can be transmitted from parent to child.

CHAPTER 7: INTRODUCTION TO STUDY 2

Findings from Study 1 indicate that individuals who were raised by two Holocaust survivor parents have lower HPMood than those who were raised by only one survivor parent, or those who had no survivor parents. This finding implies that, somehow, parents can influence their children's general mood. It is possible that the set-point for HPMood in children of survivors has been shifted to a lower threshold due to the parents' experience of trauma. Alternatively, it may be that the constant negative emotions that accompany being a child of a traumatised parent overwhelm the awareness of general HPMood. Accordingly, when children of Holocaust survivors are questioned about their general affect, they report lower scores as awareness of their family history blurs their responses.

A further outcome from Study 1 is evidence for the transmission of HPMood down two generations, although only when individuals have 4 grandparents who survived the Holocaust. Thus, the transmission of trauma to the third generation does appear to exist, although only under particular circumstances. The transmission of HPMood thus deserves future exploration.

Study 2 will explore how HPMood may be affected by parents' experiences. Three modes of transmission will be investigated; attachment, secondary trauma, and compliance. Children of two survivor parents will again be compared to children of one survivor parent and children of no survivor parents. These new variables will also be explored for grandchildren of Holocaust survivors. Structural equation modelling will be used to discover which mode of transmission can best explain the lowered HPMood found for descendants of survivors.

Overview of theoretical background

There is much evidence to suggest that trauma can be transmitted from parent to child. Theories of trauma transmission usually imply a strong genetic component (Weissman, Kidd, & Prusoff, 1982; Weissman et al., 1984), based on the idea of a set of genes being responsible for the prevalence of psychiatric disorders within families. However, although evidence for the genetic

transmission of psychiatric disorders such as depression or anxiety has been found, this argument cannot apply to the distress and trauma evidenced in children of Holocaust survivors. A genetic explanation for the transmission of trauma cannot be applied to this group when the trauma has resulted as a direct consequence of a particular experience.

From a non-genetic perspective, it has been suggested that trauma can be transmitted in two ways; through direct and indirect transmission (Schwartz, Dohrenwend, & Levav, 1994; Weiss & Weiss, 2000). Direct transmission refers to a phenomenon where it almost seems as if the children had experienced the trauma themselves. They learn to think and act in disturbed ways, mimicking their parents' behaviour. Indirect transmission refers to the process whereby children are affected through their parents' rearing behaviour. That is, as a result of their traumatisation, the parenting ability of survivors is limited.

In the proposed models for the current study, direct transmission is conceptualised as "secondary trauma", while the process of indirect transmission is conceptualised through attachment styles.

Another way in which trauma may be transferred from parent to child is termed 'compliance' (adapted from Schwarz et al., 1994). Compliance refers to a distinct personality trait that is common to children of traumatised parents and will be discussed in more detail later on in this chapter.

Direct transmission - the development of secondary trauma

In their 1995 study, McCarroll, Blank, and Hill explored why staff working at a Holocaust Museum Centre appeared to display symptoms suggestive of an exposure to trauma. The museum exhibited disturbing Holocaust-related material, including personal artefacts, survivor stories and family photographs. They found that museum staff reported a range of reactions to their exposure to trauma including symptoms of avoidance and intrusion such as emotional numbing and nightmares (McCarroll, Blank, & Hill, 1995; Baranowsky et al., 1998). Indeed, the staff reported symptoms of post-traumatic stress disorder, such that the experience of simply working with Holocaust related material was enough to induce extreme stress. Some also revealed evidence of social withdrawal and

feeling socially isolated. Although these symptoms were not categorically distinguished from general stress (as opposed to post-traumatic stress), it seems possible that if museum staff can express symptoms of PTSD acquired through just working with Holocaust-related material, then living and interacting on a daily basis with Holocaust survivors themselves could have a profound and lasting impact on their children.

Indeed, there is much evidence to suggest that children of survivors express post-traumatic stress symptoms, to the extent they actually feel as if it were them who experienced the Holocaust. This phenomenon has been explained by the suggestion that children of survivors try to understand their parents' experiences in order to form an emotional connection with them (Baranowsky et al., 1998). In doing so, children of survivors may imagine Holocaust scenes in which they themselves attempt to successfully escape or survive (Albeck, 1994; Baranowsky et al., 1998). This propensity to put oneself in the parent's position is also reflected unconsciously, with many children of survivors reporting having Holocaust-related dreams in which they themselves were being persecuted (Kellerman, 2001a; Bergmann & Jucovy, 1982). Study 2 will explore such symptoms in offspring of Holocaust survivors and will also attempt to distinguish post-traumatic symptoms from those relating to general stress.

Measuring post-traumatic stress and general stress

A common measure to assess post-traumatic stress is the Impact of Events Scale (IES; Horowitz, Wilner, & Alvarez, 1979). This scale follows the criterion for Post-Traumatic Stress Disorder (PTSD) as delineated in the DSM-IV (American Psychological Association, 1994). As such, the IES assesses subjective stress in terms of intrusion and avoidance. Intrusion is characterised by unwanted thoughts and images, troubled dreams, and constant reminders of the traumatic event. Individuals who experience avoidance tend to consciously stay away from things or situations that may trigger memories of the trauma and feel a sense of emotional 'numbness' towards the event (Horowitz et al., 1979).

General stress will be measured using the stress subscale of the Depression Anxiety Stress Scale (DASS; Lovibond & Lovibond, 1995). The stress subscale, as distinguished from the depression and anxiety subscales, assesses stress as a

chronic and non-specific state. This is distinct from post-traumatic stress which refers to stress in relation to a particular event. General stress is characterised by nervous arousal, an inability to relax, impatience, and being easily upset or irritated (Lovibond & Lovibond, 1995).

Indirect transmission - A brief account of attachment theory

According to attachment theory (Bowlby, 1969; 1988), the early bond formed between children and their primary caregivers can be expressed along two dimensions; care and control. High levels of care and moderate levels of control from mothers and fathers define "secure attachment" (Bowlby, 1969). Too much control is said to limit the developing child from their exploration of the world. Moderate control is therefore the optimum, as it allows the child the freedom to navigate their environment with the security of knowing that they have a secure base in their parents upon which to rely should they need it. By contrast, insecure attachment is characterised by low levels of care and low levels of control. Although the bond is formed in infanthood, it is proposed to continue to grow and to influence the developing personality through adolescence, adulthood, and later life.

Building on Bowlby's original conception, he later proposed that the preliminary attachment bond leads to the development of internal working models that represent how children view themselves, and how they view others (Bowlby, 1982). Children then generalise these internal working models to guide their expectations of the self and of others in subsequent interaction experiences (Kobak & Sceery, 1988).

Using the care and control framework, high levels of care and moderate levels of control from mothers and fathers are most conducive to an internal working model of the self as worthy of love and affection, and of others as trustworthy and loving (Bowlby, 1982; Kenny & Sirin, 2006). By contrast, low levels of care and high levels of control from mothers and fathers contribute to an internal working model of the self as unlovable and unworthy, and of others as untrustworthy and unpredictable (Kenny & Sirin, 2006).

Attachment theory has served as a base upon which many psychological studies have been founded. Since its establishment, a multitude of studies have incorporated attachment as a precursor to wellbeing or, conversely, to depressive symptoms in later life. It has been suggested that having a secure base engenders feelings of competence which help to reduce anxiety and encourage mastery over one's world (Kobak & Sceery, 1988). Other studies have shown that young adults with less secure attachment bonds are more vulnerable to loneliness and depression during the college years and beyond (Hallowell, Bemporad, & Ratey, 1989; Kenny & Sirin, 2006).

Attachment for children of holocaust survivors

In the Holocaust literature, there are many suggestions that as parents, Holocaust survivors represent a group who exhibit high care and extremely high control towards their children. There is, however, less evidence to support it. In Australia, a single study has explored the attachment bond in Holocaust survivor mothers and their daughters (Halik, Rosenthal, & Pattison, 1990). They identified a trend for daughters of Holocaust survivors to rate their mothers as more "indulgent" than others whose mothers were not Holocaust survivors. The term indulgent defined an attachment style of high care and high protection. This over-investment of survivors in their children's lives has been attributed to the loss of their own attachment figures during the war (Halik et al., 1990). Although classified as 'indulgent' according to the grouping style that Halik et al. determined, it must be noted that daughters of survivors did not actually perceive their mothers to be any more or less caring than daughters of immigrant or non-immigrant comparison groups. They did, however, report significantly higher scores for protection (Halik et al., 1990). By contrast, an Israeli study by Kellerman (2001c) found no evidence for higher protection or 'affection' in survivor mothers as perceived by their children.

In Kellerman's (2001c) study, survivor fathers were also perceived to be no different to non-survivor fathers on scores for affection and over-protection. Children of survivors did, however, report their fathers to be more 'punishing' and they also scored higher on the 'transmission' factor, representing the idea that children of survivors feel the burden of their parents' pain and feel the need to act

like a parent to their own parent. Thus despite finding no differences along the commonly measured aspects of parenting such as care and control, there still seem to be other aspects of parenting that may have been affected by the survivor experience.

Survivor parents have also been considered to transfer a sense of impending danger to their offspring, accompanied by an intense and sometimes inappropriate fear that they may lose their children like they lost their other close family members (Trossman, 1968; Halik et al., 1990; Bar-On et al., 1998). Considering their traumatic history, the parenting behaviour that seems to be characteristic of Holocaust survivors is quite conceivable. However, attachment theory suggests that the consequences of these types of relationships can profoundly influence the developing mood and personality of their children.

Compliance

A third pathway that could explain the transmission of trauma from parent to child was proposed by Schwarz et al. (1994) in their review of non-genetic explanations for familial transmission of psychiatric disorders. Based in the literature on parents of depressed children and first person accounts from the children of survivors, they used the term 'rigidity' to refer to the tendency of children of traumatised parents to act in a socially desirable manner so as not to cause their parents further distress. The authors proposed that these children recognise their parents' fragility and are particularly fearful of becoming the cause of more trouble to their parents. As a result, they may live their lives in a conforming, acquiescent manner (Schwarz et al., 1994). Coupled with over-conformity is the sense that they must aspire to achieve in order to compensate for what their parents have lost, and so children of survivors aim to excel academically and professionally (Krysinska & Lester, 2006). For this study, I have replaced the term 'rigidity' with 'compliance', as compliance more accurately represents the acquisition of the learned response described here.

The construct of compliance was originally described as being similar in concept to Social Desirability and has been measured using the Crowne-Marlowe Social Desirability Scale (Messick, 1960; Schwartz et al., 1994). In the initial scale, nine factors were identified as representing Social Desirability, however

only two of these factors seem to apply to the concept of compliance as it is defined here. Thus, only the factors entitled “Compulsive Conformity” and “Achievement-Oriented” will be used for the present study.

Affect in children of Holocaust survivors

Results from Study 1 indicated that HPMood in children of two Holocaust survivor parents was lower than children of one survivor parent and no survivor parents. Study 2 will explore factors which contribute to this lowered affect, as well as exploring positive and negative affect separately. Negative affect will be considered because it is possible that the lowered score on HPMood does not reflect the absence of positive emotions, but rather the presence of more negative emotions.

Few studies have specifically looked at emotional patterns in children of survivors. One qualitative analysis of children of Holocaust survivors was conducted by Gottschalk (2003). He noted a pattern in the production and suppression of positive and negative emotions. While most parents would be expected to encourage the production of positive emotions (such as happiness and joy) and the suppression of negative emotions (such as anger and resentment), children of survivors reported that they were encouraged to produce negative emotions and repress positive ones (Gottschalk, 2003). Children of survivors frequently noted in these interviews that they felt it necessary to suppress their own pleasure, or to only express it up to a certain point. They felt that they must express constant sadness and mourning because they rarely saw their parents happy. This idea was echoed in a 2004 study by Krell, Suedfeld, and Soriano, who identified a common theme among the second generation to feel that they are not entitled to happiness. It therefore seems plausible that the more frequent experiences of unwanted negative emotions might be the cause of the lower HPMood reported by children of Holocaust survivors.

Affect resulting from secondary trauma

Though the effects of secondary trauma on affect are yet to be clarified, it could be argued that children of Holocaust survivors are in the midst of a constant struggle to maintain a generally happy disposition (as the Homeostatic model

would dictate) while internally competing with repressed images, thoughts and dreams about their parents' trauma. If reminders about the Holocaust intrude their everyday existence, as was apparent in the McCarroll et al. (1995) study for museum staff, children of Holocaust survivors could experience more negative emotions on a more frequent basis. They may be more distressed, anxious, less aroused and generally less happy than others, as they are overwhelmed with grief and sorrow.

Affect resulting from attachment styles

Securely attached individuals are constantly surrounded by positive emotions including warmth and autonomy. Insecurely attached individuals are overwhelmed with negative feelings of being unwanted, ignored or unloved (Kenny & Sirin, 2006). An insecure attachment bond reflective of negative emotions is said to result in an internal working model of a negatively-viewed self, with negative self-view being a common predictor of depression (Bowlby, 1982; Kenny & Sirin, 2006; Beck, Rush, Shaw, & Emery, 1979; Carnelley, Pietromonaco, & Jaffe, 1994). Further, a 2002 study by Van Buren and Cooley confirmed the relationship between attachment styles and affect. These authors revealed that children who expressed attachment styles concordant with the development of a negative self view were more prone to report depressive symptoms, anxiety and general negative affect.

Affect resulting from compliance

Compliance may also be a predictor of affect. Children of survivors live with the knowledge of their parents' trauma, and fear that they will not live up to their parents' high expectations of them. According to Schwartz et al. (1994), children of survivors feel restricted in their everyday behaviours and emotions, and this feeling can be expressed through greater anxiety, guilt and depressed mood. Consequently, the sense that one is constantly bound or restricted might result in greater negative affect. Further, Gottschalk (2003) suggests that children of survivors may wish to repress the negative emotions they experience so as not to further upset their parents, and as such experience an internal conflict whereby they actually feel one thing, but wish to express another.

Each of attachment, secondary trauma, and compliance can therefore impact upon an individual's affective state. However, it is also possible that each of these variables is exerting its influence on affect via their impact on personality.

Personality

While personality as a whole has a large heritability component, there is much evidence to suggest that environmental influences explain as much, if not more, of the variance in some personality traits (Jang, Livesley, & Vernon, 1996; Vernon, Jang, Harris, & McCarthy, 1997; Bergeman et al., 1993). While Extraversion and Neuroticism are often considered to be predominantly genetic, the traits of Openness, Agreeableness, and Conscientiousness are thought by some to be more strongly predicted by environmental circumstances, and therefore are more subject to change by lifetime experiences. It is therefore warranted to explore whether the acquisition of secondary trauma, attachment styles, and compliance may explain some of the variance in the personality traits of children of Holocaust survivors.

Personality consequences of PTSD symptoms

As with affect, the relationship between secondary trauma and personality is, as yet, only hypothetical. However, if post-traumatic symptoms are found in children of survivors in a similar fashion to the museum staff in the McCarroll et al. (1995) study, then it is possible that some facets of personality could be influenced as a result. Recurring thoughts and images of a traumatic event could understandably lead to higher scores on the neuroticism trait, particularly if these individuals feel as if an event such as the Holocaust is likely to recur. Further, if social isolation and social withdrawal are consequences of being around Holocaust survivors or Holocaust-related material, then a more introverted personality type could ensue.

Personality consequences of attachment styles

In his earlier work, Bowlby (1977) suggested that childhood attachment was at the root of personality disorders in later life. He linked insecure attachment to the development of specific maladjustive character traits, such as excessive dependence (Bowlby, 1977; Blatt & Levy, 2003). Secure attachment, on the other

hand, is related to more positive personality outcomes including self-confidence and self-discipline (Kenny & Sirin, 2006).

For individuals who have experienced high parental care, the consistent availability of emotional warmth provides them with an appropriate emotional base upon which to learn normal attachment behaviours. These behaviours are then generalised to other interactions which are subsequently experienced positively (Thomas, 2004). Children who received high levels of care from their parents are therefore more likely to seek out other relationships with the confidence that they will be successful in doing so. This might be reflected in a more extroverted personality style than those who are less securely attached.

Children who experience low levels of care form a negative self-view that hinders their ability to form relationships with new people by associating interpersonal relationships with anxiety. They are often perceived as inhibited and withdrawn in social relationships (Thomas, 2004) which might be expressed in a more introverted and/or neurotic personality type.

Individuals who experienced moderate levels of parental control have confidence in their own abilities, as they have been afforded the autonomy to explore new situations with the knowledge that, if any problems arise, they have a secure base in their parents upon which to rely (Kobak & Sceery, 1988). By contrast, children who experience high levels of control are discouraged from learning new things by themselves. As a result, they can fail to develop appropriate skills for dealing with stressful situations later in life (Shaw & Dallos, 2005). Further, as a result of their parents' overprotection, these children may come to believe that the world is a dangerous place, from which they need to be protected. Overprotection as a child could therefore facilitate the development of a more neurotic disposition.

Personality consequences of compliance

Compliance, as it is defined here, has no known link to personality. However, it may reflect the underlying personality trait of Conscientiousness or Agreeableness. From a purely speculative standpoint, it is also possible that compliance implies a more introverted, less risk-taking personality type.

Neuroticism can also be implicated through compliance, as the need to conform to set rules and timelines may have the potential to cause anxiety if these guidelines cannot be adhered to. Compliance could therefore be another non-genetic, environmental factor that may have a multi-faceted impact on personality.

Findings from Study 1 indicate that HPMood is lower in children of two parent Holocaust survivors. Having discussed the ways in which attachment, secondary trauma and compliance can influence personality, the relationship between personality and HPMood will now be considered.

The relationship between personality and HPMood

Personality has long been thought to influence Subjective Wellbeing, particularly the traits of Neuroticism and Extraversion (Headey & Wearing, 1989; Costa & McCrae, 1980). Neuroticism is proposed to exert its influence through its relationship with negative affect, while Extraversion has a strong relationship with positive affect (Cummins, Gullone, & Lau, 2002; Headey & Wearing, 1989; Emmons & Diener, 1985; Costa & McCrae, 1980). Further, Emmons and Diener (1985) described how individuals who experience positive affect are often extroverted, sociable, and cooperative individuals. Individuals who experience negative affect are often emotionally tense, anxious, distrustful and overly sensitive. Although the direction of influence between personality factors and affect is not clear, overall life satisfaction is believed to be predominantly driven by affect (Davern, Cummins, & Stokes, 2007). Consistent with this line of thought, in the models for Study 2 presented in Figure 7, it is proposed that personality influences wellbeing via its impact on HPMood. The models to be tested also assume that each of Attachment, PTSD and Compliance influence HPMood via personality. If, during testing, modification indices suggest that a direct path to HPMood from any of these variables can improve the model, it will then be added.

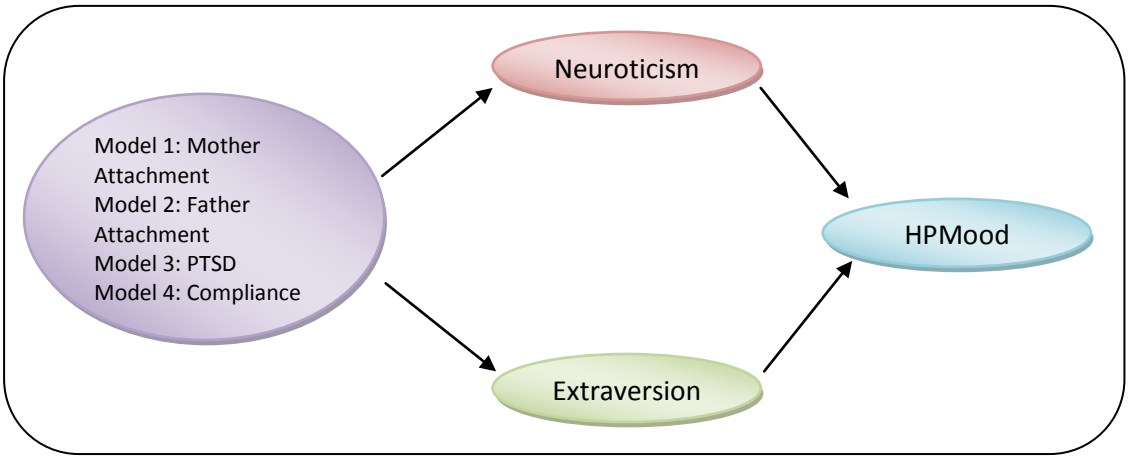

Figure 7: Models to be tested in Study 2

CHAPTER 8: METHOD FOR STUDY TWO

Participants

Australian, Jewish participants were recruited through Jewish schools, organisations, and online social networking sites. Individuals who had participated in Study 1 were asked to provide their email or home address if they were interested in participating in the next phase of the study. These individuals were sent an invitation to participate in Study 2. Altogether 198 participants completed the questionnaire, comprising 74 males (37.4%) and 124 females (62.6%). The mean age of the sample was 40.71 years (SD = 15.75), and participants ranged in age from 18-80.

Materials

The questionnaire was divided into five sections. The first section assessed Subjective Wellbeing using the Personal Wellbeing Index (PWI; International Wellbeing Group, 2006), as well as items assessing HPMood, Positive Affect, Negative Affect and Self Esteem. The second section assessed Personality and the new construct termed Compliance. The third section assessed Attachment relationships with parents. A fourth section measured General Stress and Anxiety as well as Post-Traumatic Stress. The final section requested demographic information from participants.

Measuring Subjective Wellbeing

The Personal Wellbeing Index (International Wellbeing Group, 2006), the Core Affect scale (Tomyn, 2008), and the 5-item version of the Rosenberg Self Esteem Scale (RSES; Rosenberg, 1965) were used, as in Study 1, to measure Subjective Wellbeing, HPMood, and Self-Esteem. Total scores on the PWI reflect Subjective Wellbeing. Some additional affective terms were used in Study 2 in order to explore and understand the lowered HPMood found for the sample in Study 1. It was thought that this result could have either been due to lowered positive affect, or was perhaps actually reflecting higher negative affect, which is not directly assessed in the measurement of HPMood. The affective terms that were added to the questionnaire were selected by drawing on findings from

Tomyn (2008). Two more positive items - excited and active - and four negative terms - unhappy, discontent, sleepy and quiet - were selected to add to the original HPMood items, as these were the affective terms that produced the highest factor loadings in Tomyn's study.

Personality

The Ten Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003) is a shortened form of the NEO-Personality-Inventory (Costa & McCrae, 1992). In its original form, the TIPI consists of 10 paired trait adjectives, and respondents rate how strongly those adjectives apply to them. There are 2 items for each of the 5 personality traits, Neuroticism, Extraversion, Agreeableness, Conscientiousness, and Openness to Experiences. Although a quick and efficient measure, the TIPI shows low inter-item consistency; Cronbach's alpha was reported as being as low as .24 for Extraversion (Gosling et al., 2003). Considering there are only 4 items in the TIPI to assess Extraversion, and these items are grouped into pairs, the fact that they lack consistency would likely pose difficulty to participants who are asked to respond to two adjectives in a single item. For example, one item in the TIPI asks participants to rate the strength with which they agree or disagree with the statement "I see myself as extraverted and enthusiastic". It is quite possible that an individual might see themselves as extraverted, but not enthusiastic. However, the format of the TIPI demands a single forced choice response which could cause confusion. Therefore, for the current study, the advice of Herzberg and Brahler (2006) was followed. These authors suggested splitting up the paired questions, and presenting respondents with 20 single-word items, i.e. "I see myself as extraverted". These authors then removed four items due to low or multiple factor loadings, leaving a 16-item Personality Inventory, which was adopted for Study 2.

Attachment

The Parental Bonding Index (PBI; Parker, Tupling, & Brown, 1979) is a retrospective measure consisting of 25 items which describe various attitudes and behaviours of parents. Respondents indicate how much each item describes their parent on an 11-point scale. In the current study, participants were asked to respond in terms of how each statement described their parent as they remember

them in the first 16 years of their life. For this study, separate scales were completed for mothers and fathers.

The two scales of the PBI assess Care (emotional responsiveness of the parent) and Control (protection of the child's environment). Internal consistency reliability coefficients of 0.88 were reported by Parker et al. (1979) for care, and 0.74 for control.

In an effort to reduce the number of items in the PBI for the current study, the results from three separate factor analytic studies of the PBI were considered. The 6 items that consistently loaded highest onto the Care and Control factors in a comparison of findings from Russ, Heim, and Westen (2003), Chambers, Power, Loucks, and Swanson (2000) and Qadir, Stewart, Khan, and Prince (2005), were used.

PTSD

The Impact of Events Scale (IES; Horowitz, Wilner, & Alvarez, 1979) was used to measure subjective stress in relation to a particular event, in this case, the Holocaust. This scale asks respondents to indicate how frequently a variety of statements about the Holocaust are true for them. The IES has two subscales, Intrusion (referring to unwanted thoughts, feelings or pictures about the stressful event that invade an individual's consciousness) and Avoidance (referring to behaviours or feelings that an individual particularly and consciously attempts to keep out of their mind). Horowitz et al. (1979) reported high internal consistency, with Cronbach's alpha at 0.78 for the intrusion subscale and 0.82 for avoidance.

Compliance

Selected subscales from the Crown-Marlowe Social Desirability Scale (Messick, 1960) were used to assess Compliance. The two subscales which were consistent with the definition of the construct as it has been described in the previous chapter are entitled "Compulsive Conformity" and "Achievement-Oriented". The Compulsive Conformity factor reflects the tendency to act in a conforming manner which is thought to be socially desirable. It is characterised by a viewpoint that values strict orderliness and relative passivity. The Achievement-Oriented factor reflects a hard-working and success-oriented disposition. Participants rate the extent to which they agree or disagree with

statements on an 11-point scale that ranges from 0 – “Strongly Disagree” to 10 – “Strongly Agree”. Reliability scores for these factors were not reported in the Messick (1960) report.

General Stress and Anxiety

The stress subscale of the DASS (Lovibond & Lovibond, 1995) was used to measure general stress. The shortened 7-item version from the DASS-21 was selected for the present study. Participants rate how much each statement applied to them over the past week on an 11-point scale where 0 = “Did not apply to me at all” and 10 = “Applied to me most of the time”. Reliability for the shortened version of the DASS (Stress subscale) has been reported at 0.90 (Henry & Crawford, 2005).

The anxiety subscale of the DASS-21 was also included in this study. Participants respond in the same fashion as for the stress subscale, however the items reflect autonomic arousal and the subjective experience of anxious affect. Henry and Crawford (2005) report Cronbach’s alpha of 0.82 for the Anxiety subscale of the DASS-21.

Procedure

Approval was sought from Deakin University Human Research Ethics Committee (HMNBS) to undertake the study. After approval was granted, participants from Study 1 who had indicated their interest in participating in future research were contacted via email. They were sent a cover message which thanked them for participating in the previous study, and introduced the current study. They were provided with a website link and upon accessing it, they were directed to the Plain Language Statement. Once they agreed to participate they were then able to complete and submit the questionnaire online. Other participants were informed of the study via an online networking site in which they were invited to participate in the research study. In addition, participants were recruited by distributing information about the study through a snowball technique. All participants were informed that they were able to request a hard-copy version of the questionnaire by contacting the researcher, should they prefer this mode of completion.

Participants who received the hard-copy version were mailed or handed an envelope that contained a cover letter, plain language statement, and a copy of the questionnaire. Participants were also provided with a reply-paid envelope in which they sealed their completed questionnaire. These envelopes were returned to Deakin University where they were collected by the researcher.

Participants were encouraged to contact the researcher if they were interested in the collaborative findings, and brief summary reports of the findings were presented to the schools and organisations that helped in the recruitment stage.

CHAPTER 9: RESULTS FOR STUDY 2

Data Preparation and Assumptions

Data were first screened through SPSS 17.0. Missing values were found to be random for most cases. However, 7 cases gave missing values for all "Attachment to Father" items. These cases were mostly older participants who commented that their father died when they were very young or that they had little memory of their father. As such, these cases were retained along with those who had random missing values, and were excluded pair-wise in subsequent analyses, following recommendation from Pallant (2007).

Tests of normality were conducted on each scale. All scales except for the Compliance (Organisation subscale) violated the assumption of normality. As for Study 1, assumptions of normality were relaxed for these analyses as SWB measurement is acknowledged to be subject to positive skew (Cummins, 1995; 1998).

A total of 29 univariate outliers were identified in the data set as being 3 *z*-scores below the mean. Each outlying score was re-coded back to within the accepted range, as recommended by Tabachnik and Fidell (2007). Three multivariate outliers were identified by the criterion of Mahalanobis distance at a significance level of .001 (df = 21) with a Chi-Square value of 46.797. Independent sample t-tests showed that there were significant differences on some of the major variables when multivariate outliers were included as compared to when they were excluded. However, closer inspection revealed that the three multivariate outliers were all children of Holocaust survivors. Following evidence from Study 1 which suggested that second generation survivors scored lower than others on various wellbeing variables, these multivariate outliers were retained in the data set.

All scores (other than demographic items) were converted to percentages of Scale Maximum scores (%SM). As each item was assessed on an 11-point scale from 0-10, all scores were simply multiplied by 10 to convert them to lie within a 0-100 range.

FACTOR ANALYSES

Factor analyses were performed for each scale, following the criterion and requirements as discussed for Study 1 results. As for Study 1, only factor loadings above .40 are shown in the tables.

Table 37 confirms the suitability of each scale for factor analysis, as revealed by the values for the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity.

Table 37:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity scores for each variable to be factor analysed

Variable	KMO	Bartlett's test of sphericity
SWB	.836	$x^2_{(28)} = 590.303$, p=.000
Affect	.828	$x^2_{(36)} = 1030.364$, p=.000
Personality	.736	$x^2_{(120)} = 1137.524$, p=.000
Self Esteem	.842	$x^2_{(10)} = 1072.646$, p=.000
Compliance	.682	$x^2_{(21)} = 216.625$, p=.000
Attachment to Mother	.881	$x^2_{(66)} = 1335.618$, p=.000
Attachment to Father	.837	$x^2_{(66)} = 1078.350$, p=.000
PTSD	.880	$x^2_{(105)} = 1334.333$, p=.000
DASS	.916	$x^2_{(91)} = 1644.345$, p=.000

Factor analysis for the Subjective Wellbeing Scale

Principal components analysis was performed on the 8 items of the PWI. A single factor structure emerged. The data met the assumptions necessary for factor analysis, with most items correlating greater than .30 with each other. The single-factor structure accounted for almost 51% of the variance. Table 38 displays the factor loadings for the PWI, sorted from highest to lowest loading item.

Table 38:

Component matrix showing item loadings for the Personal Wellbeing Index

Questionnaire items		Factor loading
7	How satisfied are you with your future security?	.819
5	How satisfied are you with how safe you feel?	.750
3	How satisfied are you with what you are currently achieving in life?	.731
1	How satisfied are you with your standard of living?	.723
6	Ho w satisfied are you with feeling part of your community?	.715
4	How satisfied are you with your personal relationships?	.683
2	How satisfied are you with your health?	.679
8	How satisfied are you with your spirituality or religion?	.562

Factor analysis for the Affect scale

The nine Affect items were analysed using principal components, and a complex two-factor structure emerged. Direct oblimin rotation revealed a simpler solution. The two factors explained over 65% of the variance in Affect (Factor 1 accounted for almost 53% and Factor 2 accounted for an additional 12% of variance).

Table 39 shows the factor loadings of the nine items.

Table 39:

Pattern matrix showing item loadings for the Affect scale

Questionnaire item		Factor 1	Factor 2
2	How content do you generally feel?	.835	
4	How excited do you generally feel?	.817	
5	How active do you generally feel?	.791	
1	How happy do you generally feel?	.790	
3	How alert do you generally feel?	.766	
7	How discontent do you generally feel?		.757
8	How sleepy do you generally feel?		.747
6	How unhappy do you generally feel?		.710
9	How quiet do you generally feel?		.696

Factor 1 here represents Positive Affect and Factor 2 represents Negative Affect.

Factor analysis for the Personality scale

When the 16 personality items were factor analysed, the 5 factor structure of the TIPI was confirmed. One item, "I see myself as complex" loaded on both Factor 1 and Factor 5, however it loaded greater on Factor 5 and was retained in the scale so that it remained consistent with the original version of the TIPI. Together, the 5 factors accounted for over 68% of the variance in personality. Specifically, Factor 1 accounted for 25% of variance, Factor 2 accounted for 14%, Factor 3 accounted for almost 12%, Factor 4 accounted for 9% and Factor 5 accounted for almost 8% of variance. Varimax rotation was performed on these items. Table 40 shows the factor loadings of the personality items.

Table 40:

Rotated Component matrix showing item loadings for the TIPI

Questionnaire item		1	2	3	4	5
3	I see myself as anxious	.783				
4	I see myself as easily upset	.776				
12	I see myself as calm	-.756				
13	I see myself as emotionally stable	-.643				
8	I see myself as quiet		.885			
7	I see myself as reserved		.883			
16	I see myself as introverted		.853			
2	I see myself as self-disciplined			.766		
11	I see myself as disorganised			-.753		
15	I see myself as conscientious			.737		
1	I see myself as dependable			.550		
9	I see myself as sympathetic				.890	
10	I see myself as warm				.884	
14	I see myself as uncreative					-.756
5	I see myself as open to new experiences					.600
6	I see myself as complex	.516				.592

Factor 1 represents Neuroticism, Factor 2 represents Extraversion, Factor 3 represents Conscientiousness, Factor 4 represents Agreeableness, and Factor 5 represents Openness to new experiences.

Factor analysis for the revised Self-Esteem Scale

For the Self-Esteem scale, a principal components analysis with Varimax rotation was performed. The data revealed a single-factor structure for self-esteem, explaining 82.7% of the variance. Table 41 shows the factor loadings of the five self-esteem items, listed in order of highest to lowest factor loadings.

Table 41:

Component matrix showing item loadings for the Self-Esteem scale

Questionnaire item		Factor loading
1	I feel I am a person of worth, at least on an equal plane with others	.934
4	I take a positive attitude toward myself	.923
2	I feel that I have a number of good qualities	.915
5	On the whole, I am satisfied with myself	.894
3	I am able to do things as well as most other people	.890

Factor analysis for the Compliance scale

A principal components analysis with Varimax rotation was performed for the Compliance items. To maintain consistency with the original scale, a two-factor solution was forced, although this resulted in a factor-structure which was inconsistent with the original scale. One item, “I like to conform to custom and avoid doing things that people I respect might consider unconventional” loaded onto both factors. Removal of this item resulted in a two-factor solution explaining almost 52% of the variance. Table 42 shows the factor structure for Compliance.

Table 42:

Rotated Component matrix showing item loadings for the Compliance scale

Questionnaire item		Factor 1	Factor 2
5	I like to have my life so arranged that things run smoothly and without any change in plans	.801	
1	I like to have my meals organised and a definite time set aside for eating	.732	
4	Once I start working on some assignment I like to keep working on it until it is completed	.722	
2	I like to be able to put in long hours of work without distractions	.652	
3	I like to be in groups where someone else takes the lead in deciding what I am going to do		-.638
7	I like to do my very best in whatever task I undertake		.603
8	I would like to be recognised as an authority in some job, profession, or field of specialisation		.555

Although the factor structure here did not replicate that of the original, the two factors here seem to represent alternate albeit similar facets of Compliance as it has been defined. The first factor here represents an attention to time and finishing what has been started. This factor will be termed "Compulsive Organisation". The second factor reflects a tendency to want to be the best, to be the leader, and to strive to achieve greatness. This factor will be termed "Striving" and closely resembles that of "Achievement Oriented" in the original scale.

Factor analysis for the Attachment items

Attachment to mother

The 12 attachment to mother items were analysed using principal components and direct oblimin rotation. A two factor structure emerged, accounting for almost 65% of variance (Factor 1 – almost 46%, Factor 2 – 19%). Table 43 shows the factor loadings of the 12 attachment (mother) items.

Table 43:

Pattern matrix showing item loadings for the Attachment (mother) scale

Questionnaire item		1	2
5	My mother was affectionate towards me	.856	
3	My mother seemed emotionally cold to me (reverse coded)	.845	
1	My mother spoke to me in a warm and friendly voice	.815	
4	My mother appeared to understand my problems and worries	.782	
2	My mother did not help me as much as I needed (reverse coded)	.747	
9	My mother did not seem to understand what I needed or wanted (reverse coded)	.637	-.442
12	My mother was overprotective of me		.879
8	My mother tended to baby me		.846
7	My mother invaded my privacy		.714
11	My mother gave me as much freedom as I wanted (reverse coded)		.658
10	My mother tried to make me dependent on her		.637
6	My mother tried to control everything I did		.594

Item 9, "My mother did not seem to understand what I needed or wanted" loaded onto both factors. It loaded higher onto Factor 1, and will be considered an item of Factor 1 to remain consistent with previous factor analyses on this scale. Factor 1 here represents "Care" and Factor 2 represents "Control".

Attachment to father

The 12 attachment to father items were analysed using principal components and Varimax rotation. A two factor structure emerged, accounting for almost 59% of variance (Factor 1 – 41%, Factor 2 – 17%). Table 44 shows the factor loadings of the 12 attachment (father) items.

Table 44:

Pattern matrix showing item loadings for the Attachment (father) scale

Questionnaire item		1	2
5	My father was affectionate towards me	.863	
3	My father seemed emotionally cold to me (reverse coded)	.835	
1	My father spoke to me in a warm and friendly voice	.821	
2	My father did not help me as much as I needed (reverse coded)	.753	
9	My father did not seem to understand what I needed or wanted (reverse coded)	.731	
4	My father appeared to understand my problems and worries	.684	
6	My father tried to control everything I did		.762
8	My father tended to baby me		.759
10	My father tried to make me dependent on him		.748
12	My father was overprotective of me		.664
7	My father invaded my privacy		.660
11	My father gave me as much freedom as I wanted (reverse coded)		.522

As for the Attachment (mother) scale, Factor 1 here represents “Care” and Factor 2 represents “Control”.

Factor analysis for the PTSD scale

Principal components analysis followed by Varimax rotation was performed for the items comprising the PTSD scale. Initially, a complex three-factor solution emerged, however upon forcing 2 factors the structure of the Impact of Events Scale (Horowitz et al., 1979) was reproduced. The 2 factor solution explained almost 54% of the variance, with Factor 1 accounting for 39% and Factor 2 accounting for an additional 15%. Table 45 shows the factor loadings for the PTSD items.

Table 45:

Component matrix showing item loadings for the PTSD scale

Questionnaire item		1	2
11	Other things keep making me think about it	.812	
10	Pictures about it pop into my mind	.809	
1	I think about it when I don't mean to	.773	
5	I have waves of strong feelings about it	.773	
14	Any reminder brings back feelings of it	.706	
6	I have dreams about it	.704	
4	I have trouble falling asleep or staying asleep because of pictures or thoughts about it that come into my mind.	.599	
13	I try not to think about it		.848
3	I try to remove it from memory		.753
7	I stay away from reminders of it		.729
9	I try not to talk about it		.729
12	I am aware that I have a lot of feelings about it, but I don't deal with them	.506	.592
15	My feelings about it are kind of numb		.552
2	I avoid letting myself get upset when I think about it or are reminded of it		.545
8	I feel as if it didn't happen or it wasn't real		.481

One item, "I am aware that I have a lot of feelings about it, but I don't deal with them", loaded onto both factors. For consistency's sake, this item will be considered as part of Factor 2. Factor 1 here represents "Intrusion" and Factor 2 represents "Avoidance".

Factor analysis for the DASS (Stress and anxiety subscales)

Principal components factor analysis followed by Direct Oblimin rotation was performed on the items from the DASS. A two-factor structure emerged which explained 62% of the variance (Factor 1 – 52%, Factor 2 – 10%). Table 46 shows the factor structure for the items of the DASS.

Table 46:

Pattern matrix showing item loadings for the DASS scale

Questionnaire item		1	2
10	I was intolerant of anything that kept me from getting on with what I was doing	.896	
8	I found myself getting agitated	.878	
9	I found it difficult to relax	.854	
12	I felt that I was rather touchy	.846	
6	I felt that I was using a lot of nervous energy	.738	
11	I felt I was close to panic	.684	
7	I was worried about situations in which I might panic and make a fool of myself	.683	
1	I found it hard to wind down	.664	
4	I tended to overreact to situations	.656	
14	I felt scared without any good reason	.465	
3	I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)		.897
2	I was aware of dryness in my mouth		.776
13	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)		.750
5	I experienced trembling (e.g. in the hands)		.714

The factor structure produced here does not exactly replicate that of the original scale. However, Factor 1 comprises all of the original 'Stress' items, and all those that load on the second factor are originally from the 'Anxiety' subscale. Three items that originally belonged to the 'Anxiety' subscale here load onto the 'Stress' subscale (items 7, 11, and 14). The authors of the manual for the DASS (Lovibond & Lovibond, 1995) acknowledge that there is often substantial overlap between these two subscales, and that "the items showing the most overlap are those involving nervous tension and nervous energy" (pg. 33). For the data in the current sample, these 'nervous energy' items are the ones that load onto the 'Stress' subscale. The factor structure produced here is therefore neither inconsistent nor problematic. Factor 1 here will remain as the Stress subscale, and Factor 2 will be treated as the Anxiety subscale.

DESCRIPTIVE STATISTICS

A summary score for each variable was calculated as the average of the component items. All scores have been converted from a 0-10 scale to a 0-100 scale. This method allows for simpler interpretation and comparison across variables. The means and standard deviations for each variable are shown in Table 47. Where appropriate, reliability measures are also included.

Table 47:

Means and standard deviations for all measured variables

Variable (number of items)	N	Mean	SD	Cronbach's alpha
Life as a Whole (1)	198	72.87	18.38	
SWB (8)	196	74.01	14.23	.86
HPMood (3)	196	70.75	16.68	.83
Positive Affect (5)	194	68.49	15.98	.88
Negative Affect (4)	194	39.60	18.59	.78
Personality – Neuroticism (4)	195	44.41	19.64	.77
Personality – Extraversion (3)	197	56.13	24.60	.88
Personality – Conscientiousness (4)	196	72.57	16.06	.68
Personality – Agreeableness (2)	197	78.44	16.47	.86
Personality – Open to experiences (3)	198	66.56	16.49	.36
Self Esteem (5)	197	79.81	18.84	.94
Compliance – Organisation (5)	192	54.80	20.98	.73
Compliance – Striving (3)	195	76.17	13.15	.17
Mother Care (6)	192	68.62	25.16	.89
Mother Control (6)	195	39.57	23.63	.85
Father Care (6)	187	62.91	24.09	.89
Father Control (6)	187	32.09	21.11	.80
PTSD – Intrusion (7)	197	34.31	23.30	.88
PTSD – Avoidance (8)	194	22.52	18.24	.83
DASS – Stress (10)	189	32.05	23.23	.92
DASS – Anxiety (4)	193	15.35	19.82	.82

In general, the reliability scores for the scales in this study are acceptable. However, two scales (Personality – Openness to Experiences, and Compliance – Striving) are particularly low. Despite these low reliability scores, the items for these scales hang together to form a valid factor, and so these scales will still be used in subsequent analyses.

Table 48 presents the correlations between all measured variables.

Table 48:

Correlations between all variables:

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Life as a Whole																					
2. SWB	.74																				
3. HPMood	.77	.74																			
4. Positive Affect	.75	.77	.96																		
5. Negative Affect	-.50	-.49	-.60	-.61																	
6. Neuroticism	-.43	-.49	-.51	-.50	.47																
7. Extraversion	.34	.31	.44	.47	-.49	-.30															
8. Conscientiousness	.20	.32	.35	.36	-.33	-.13	.18														
9. Agreeableness	.18	.23	.26	.30	-.12	-.16	.22	.26													
10. Openness to Experiences	.13	.25	.18	.21	-.16	-.04	.14	.10	.15												
11. Self Esteem	.64	.70	.68	.69	-.61	-.50	.39	.39	.28	.28											
12. Compulsive Organisation	.10	-.02	.02	.04	-.03	.34	-.08	.29	-.01	-.07	.00										
13. Striving	-.05	.17	.20	.23	-.12	-.04	.20	.20	.03	.16	.21	.06									
14. Mother Care	.22	.40	.19	.23	-.26	-.26	.19	.14	.16	.07	.37	-.02	.01								
15. Mother Control	-.19	-.30	-.15	-.17	.25	.28	-.11	-.15	.01	-.02	-.28	.08	-.03	-.46							
16. Father Care	.15	.33	.24	.30	-.24	-.21	.16	.24	.15	.08	.26	.15	.22	.41	-.25						
17. Father Control	-.07	-.18	-.10	-.12	.13	.27	.00	-.19	.10	-.14	-.14	.04	.15	-.17	.48	-.40					
18. PTSD Intrusion	-.10	-.20	-.15	-.14	.19	.19	-.08	-.10	-.11	-.00	-.25	.16	-.07	-.29	.20	-.10	.08				
19. PTSD Avoidance	-.16	-.25	-.22	-.20	.11	.20	-.04	-.08	-.09	-.11	-.21	.20	-.03	-.32	.20	-.26	.21	.47			
20. DASS Stress	-.50	-.48	-.51	-.53	.45	.65	-.28	-.23	-.25	-.07	-.47	.23	-.05	-.26	.19	-.23	.16	.26	.26		
21. DASS Anxiety	-.30	-.35	-.33	-.34	.30	.35	-.12	-.18	-.16	-.06	-.35	.12	-.11	-.28	.17	-.27	.15	.15	.31	.63	

Table 48 confirms the high correlations consistently found between the wellbeing variables, with Life as a Whole, SWB, HPMood, Positive Affect, Negative Affect and Self Esteem all showing strong correlations. In particular, Positive Affect and HPMood share a very strong correlation as Positive Affect in this study is calculated as the average score of the items that comprise HPMood plus two additional positive affect items.

Comparing the present sample to the Study 1 sample

The scores for Satisfaction with Life as a Whole, SWB, HPMood, and Self Esteem were compared to data from Study 1, as these variables were common across the 2 studies.

Table 49:

Comparison of means and SDs of common variables with Study 1 findings

	Study 1		Study 2		
Variable	M	SD	M	SD	ANOVA
Life as a Whole	75.21	14.90	72.87	18.38	F(1, 467) = 2.320, p = .128
SWB	76.52	11.90	74.01	14.23	**F(1, 463) = 4.264, p = .039**
HPMood	73.77	13.10	70.75	16.68	**F(1, 465) = 4.805, p = .029**
Self-Esteem	81.13	13.60	79.81	18.84	F(1, 466) = .777, p = .379

**Note: For the current study, N = 198. For Study 1, N = 271.*

Table 50:

Comparison of means and SDs of major variables with Australian sample

	Study 2		General Australian sample		
Variable	M	SD	M	SD	ANOVA
Life as a Whole	72.87	18.38	76.40	17.93	**F(1, 488) = 4.505, p = .034**
SWB	74.01	14.23	75.71	14.48	F(1, 473) = 1.604, p = .206
HPMood	70.75	16.68	74.88	16.18	**F(1, 487) = 7.474, p = .006**
Self-Esteem	79.81	18.84	78.35	15.77	F(1, 488) = .862, p = .354

**Note: For the current study, N = 198. The General Australian sample used for comparison here was a random sample of 300 cases taken from the 18th longitudinal AU survey.*

The ANOVAs show that the sample recruited for Study 2 reported significantly lower SWB and HPMood than the Study 1 sample. Further, they

reported lower Life Satisfaction and HPMood than the general Australian sample. This non-comparability is likely to fundamentally affect comparisons between the studies due to the over-representation of people in Study 2 with compromised homeostasis. To explore the reasons behind these differences, the individual domains will be compared, as will the demographics between the Study 1 and Study 2 samples.

Domains of the PWI

Table 51 compares the means and standard deviations for each domain of the Personal Wellbeing Index for the current study and Study 1.

Table 51:
Domains of the Personal Wellbeing Index

	Study 1 *(N=271)*		Study 2 *(N=198)*		
Domain	Mean	SD	Mean	SD	ANOVA
Standard of Living	80.59	14.82	79.09	17.43	F(1, 467) = 1.008, p = .316
Health	76.38	17.28	71.02	22.34	**F(1, 466) = 8.585, p = .004**
Achieving in Life	73.30	18.39	69.73	20.13	**F(1, 466) = 3.954, p = .047**
Personal Relationships	75.06	19.01	72.78	22.14	F(1, 467) = 1.428, p = .233
Personal Safety	84.27	14.27	80.05	19.50	**F(1, 467) = 7.335, p = .007**
Feeling Part of the Community	76.25	17.31	74.89	19.50	F(1, 467) = .637, p = .425
Future Security	75.07	17.77	72.23	22.18	F(1, 465) = 2.356, p = .125
Spirituality or Religion	71.62	19.23	72.12	19.94	F(1, 467) = .074, p = .785

The first and second studies differ in Health, Achieving and Safety domains, which may likely be attributed to the higher age of the 2nd study sample as shown further on.

Demographic comparisons of the current study sample to Study 1

Income

The income categories were re-grouped as per Study 1. Table 52 compares the frequency of income across Studies 1 and 2.

Table 52:

Frequency of income compared to Study 1.

	Study 1		Study 2	
	N	% N	N	% N
Less than $30,000	14	5.6	17	9.4
$31,000 - $60,000	23	9.3	23	12.7
$61,000 - $100,000	48	19.4	32	17.7
$101,000 - $150,000	63	25.4	48	26.5
$151,000 - $250,000	43	17.3	30	16.6
More than $250,000	57	23.0	31	17.1
Total	248	100 %	181	100 %

This table shows that the income of the second Jewish sample is distributed similarly to that of the sample in the first study, except that a greater percentage of the current study earned under $60,000 and a greater percentage of the first study earned over $250,000. According to reports from the Australian Unity Wellbeing Index (e.g. Cummins et al., 2009), income exerts its effects on SWB particularly in the lower income brackets. Hence, if a greater percentage of the sample fall within the lower income categories, the variance in SWB should be higher. This is confirmed in Table 53.

Table 53 displays the means and standard deviations for SWB based on reported annual household income, and compares across the two studies.

Table 53:

Household Income and SWB

	Study 1		Study 2		
	PWI	SD	PWI	SD	ANOVA
< $30,000	72.41	15.38	62.49	16.39	F(1, 28) = 2.894, p =
$31K - $60K	72.07	14.76	72.37	13.30	F(1, 44) = .005, p = .943
$61K - $100K	72.58	14.43	71.09	13.96	F(1, 78) = .209, p = .649
$101K - $150K	77.84	10.65	76.63	13.76	F(1, 108) = .271, p =
$151K - $250K	79.61	8.57	76.98	12.52	F(1, 70) = 1.124, p =
> $251,000	78.51	10.68	76.68	14.19	F(1, 85) = .455, p = .502
ANOVA:	**F(5, 240) = 3.068, p = .011**		**F(5, 173) = 3.397, p=.006** $101-$150K > <$30K, p=.007 $150-$250K > <$30K, p=.012 $250K+ > <$30K, p=.014		

While there are no differences in SWB within income groups across the two studies, the data from Study 2 more closely resemble the patterns found in the Australian Unity Wellbeing Indices, with higher income groups reporting higher PWI than the lowest income group. To gain a clearer idea of the pattern of these data, they were compared to the normative means derived from 22 cross-sectional surveys of the Australian Unity Wellbeing Index, using survey mean scores as data. Figure 8 depicts these results.

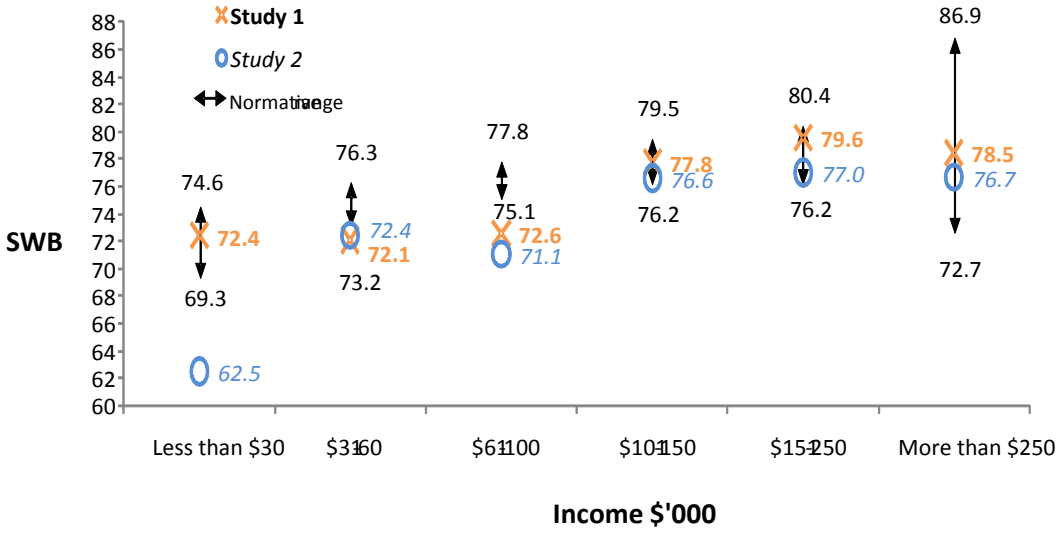

Figure 8: SWB means and normative ranges for income groups with means of Studies 1 and 2

Figure 8 shows that for Study 1, the mean SWB for most income groups fall within the normal range. Although for people earning between $31,000 and $100,000 SWB is below the normal range. For Study 2, the PWI score of 62.5 for the lowest income group is considerably below the normal range. However, across all income groups for Study 2, the mean SWB scores fall below or at the very bottom of the normative range. Since this is a consistent finding across all income groups for Study 2, it adds little to the understanding of why participants in Study 2 scored lower on the wellbeing variables.

Gender

The sample for the second study comprised 74 males (37.6%) and 123 females (62.4%).

Table 54:

Descriptive statistics for gender in the current study and Study 1

	Study 1			Study 2			
Gender	N	PWI Mean	PWI SD	N	SWB Mean	SWB SD	ANOVA
Male	108	75.63	11.91	74	73.21	14.34	F(1, 179) = 1.514, p = .220
Female	161	77.12	11.90	123	74.49	14.20	F(1, 282) = 2.887, p = .090
ANOVA	F(1, 267) = 1.019, p = .314			F(1, 194) = .367, p = .546			

In the current study there are no differences in SWB between males and females. Further, there are no differences for males across the two studies, nor were there differences in SWB for females.

As these data appear to be consistent with mean SWB scores taken from the Australian Unity Wellbeing Index, differences in gender cannot explain the lower wellbeing for the Study 2 sample.

Age

Participants in the current study ranged in age from 18 to 81 years old. The average age was 40.71 and standard deviation was 15.75. This is slightly older than the sample for Study 1 (M = 34.84, SD = 14.01). Table 55 displays the means and standard deviations for SWB by age group.

Table 55:

Descriptive statistics for age group in Study 1 and Study 2

	Study 1			Study 2			
Age group	N	Mean	SD	N	Mean	SD	ANOVA
18-25	114	77.29	10.47	48	76.41	12.72	F(1, 160) = .212, p=.646
26-35	48	78.23	9.67	44	74.13	15.30	F(1, 90) = 2.404, p=.125
36-45	38	77.01	12.12	22	75.37	13.68	F(1, 58) = .231, p=.633
46-55	47	75.74	14.53	46	74.02	14.73	F(1, 91) = .323, p=.571
56-65	16	75.08	12.86	26	69.72	15.33	F(1, 39) = 1.304, p=.261
65 +	7	57.86	13.08	10	70.13	11.92	F(1, 15) = 4.030, p=.063
ANOVA and Post-	**F(5, 263) = 4.049, p = .001** 18-25 > 65+, p = .000			F(5, 190) = .934, p = .460			

hocs	26-35 > 65+, p = .000
	36-45 > 65+, p = .000
	46-55 > 65+, p = .001
	56-65 > 65+, p = .004

For the Study 2 sample, there were no significant differences across age groups. Further, there were no differences within age groups across the two studies. Despite not reaching significance, the oldest group in Study 2 appear to report higher SWB than those in Study 1, though it should be remembered that the scores for the oldest group in Study 1 are particularly low, and were explained as being due to the Holocaust survivors who comprise that group. Why the same finding was not repeated in the Study 2 sample is unclear.

Figure 9 compares the age x SWB data reported above to the normative ranges derived from the mean scores of 22 surveys of the Australian Unity Wellbeing Index.

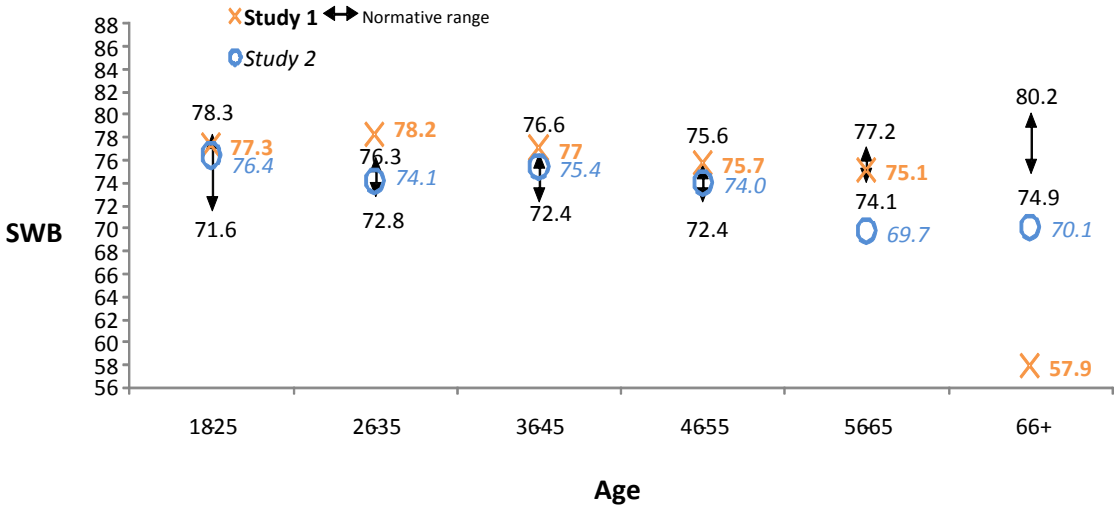

Figure 9: SWB mean scores for age groups compared to the normative means from 22 surveys of the Australian Unity Wellbeing Index.

Figure 9 shows that, for Study 1 in particular, the mean scores for the Jewish sample by age group are towards the high end of the normative range, or even higher than normal. However, at about middle age, the SWB of the Jewish sample drops to the lower end of the normal range and, for over 56 year olds in Study 2, is much lower than the normative range. For the oldest group, this is not

so surprising as all Holocaust survivors in the sample would fall into this age-group. The lower than normal SWB of the 56-65 year olds in Study 2 is anomalous.

Age x Gender

To explore whether there are any effects for age on SWB when gender is controlled for, a two-way ANOVA was conducted. Table 56 shows the means and standard deviations for the ANOVA.

Table 56:

Descriptive statistics of SWB for age groups controlling for gender

Age group		Study 1			Study 2			ANOVA
		N	Mean	SD	N	Mean	SD	
18-25	Males	41	75.98	11.01	12	76.77	9.89	F(1, 51) = .051, p = .823
	Females	73	78.03	10.16	36	76.28	13.66	F(1, 107) = .563, p = .455
ANOVA		F(1, 112) = 1.011, p = .317			F(1, 46) = .013, p = .910			
26-35	Males	26	77.21	9.36	15	75.78	15.97	F(1, 35) = .131, p = .719
	Females	22	79.43	10.11	29	73.27	15.16	F(1, 49) = 2.712, p = .106
ANOVA		F(1, 46) = .623, p = .434			F(1, 41) = .143, p = .707			
36-45	Males	14	78.48	9.68	7	81.43	9.88	F(1, 19) = .426, p = .522
	Females	24	76.15	13.46	15	72.54	14.57	F(1, 37) = .621, p = .436
ANOVA		F(1, 36) = .323, p = .574			F(1, 20) = 2.119, p = .161			
46-55	Males	15	75.25	16.59	15	67.50	14.55	F(1, 28) = 1.850, p = .185
	Females	32	75.98	13.73	31	77.18	13.96	F(1, 61) = .118, p = .732
ANOVA		F(1, 45) = .025, p = .875			**F(1, 44) = 4.727, p = .035**			
56-65	Males	8	74.69	7.25	19	71.65	15.65	F(1, 25) = .271, p = .607
	Females	7	75.54	18.00	7	64.46	14.18	F(1, 12) = 1.635, p = .225
ANOVA		F(1, 13) = .015, p = .904			F(1, 24) = 1.131, p = .298			
65 +	Males	4	55.00	16.46	5	68.50	14.45	F(1, 7) = 1.720, p = .231
	Females	3	61.67	8.32	5	71.75	10.22	F(1, 6) = 2.057, p = .201
ANOVA		F(1, 5) = .401, p = .555			F(1, 8) = .169, p = .692			

Figure 10 shows the mean scores of SWB for each age group (controlling for gender) in both studies, compared to the normative ranges of SWB gathered from 22 surveys of the Australian Unity Wellbeing Index.

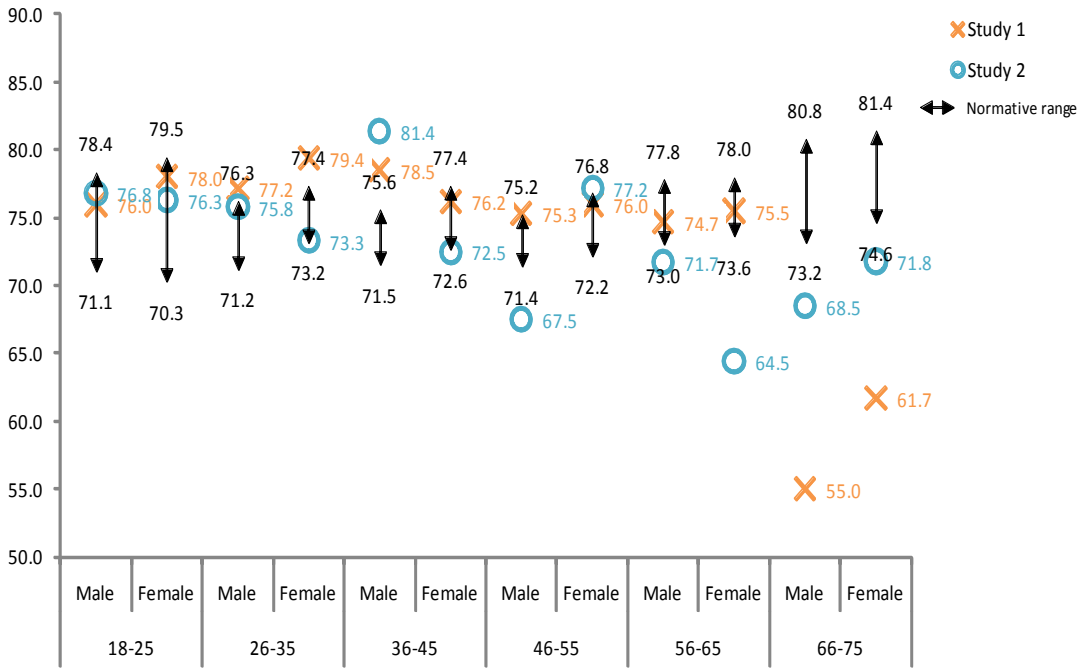

Figure 10: SWB mean scores for age groups (controlling for gender) compared to the normative means from 22 surveys of the Australian Unity Wellbeing Index.

Figure 10 shows that in the youngest age group, males and females in both studies reported SWB scores that were towards the higher end of the normative range for the Australian population. However, for males in Study 2 over 46 years old, SWB falls below the normal range. In the two oldest age groups, scores for both genders from both studies fall below the normal range. The oldest age-group comprises Holocaust survivors and so it is not surprising that, given their experiences, these scores are way lower than the normal range. The inconsistencies in the data here regarding SWB by age and gender do not lend any understanding as to why the Study 2 sample scored lower on the wellbeing variables.

Marital status

Table 57 shows the means and standard deviations for marital status in Studies 1 and 2

Table 57:

Comparison of marital status between Study 1 and Study 2

	Study 1			Study 2			
Marital status	N	SWB Mean	PWI SD	N	SWB Mean	SWB SD	ANOVA
Never Married	116	76.65	10.01	62	72.87	14.44	**F(1, 17) = 4.188, p=.042**
De facto or living together	16	76.95	11.19	9	82.22	6.46	F(1, 23) = 1.663, p=.210
Married	122	77.51	13.09	107	74.65	14.10	F(1, 225) = 2.509, p=.115
Separated but not divorced	2	76.88	6.19	1	88.75	.	F(1, 1) = 2.456, p=.362
Divorced	9	65.28	14.72	9	63.54	17.97	F(1, 16) = .050, p=.826
Widowed	5	68.25	14.21	7	74.82	11.62	F(1, 10) = .778, p=.398
ANOVA	**F(5, 262) = 2.308, p = .045** Married > divorced, p = .034			F(5, 189) = 1.954, p=.087			

For the second sample, there were no differences across marital status. There was, however, a difference for the never married group. The single participants in Study 2 reported lower SWB than those in Study 1. This seems inconsistent as the never married participants would assumedly be those in the lower age groups, however the lower age groups showed no differences for SWB. ANOVAs controlling for age revealed that never married participants aged between 26-35 in the second study reported significantly lower SWB than their married counterparts of the same age (Never married Mean = 68.33, SD = 17.10; Married Mean = 78.55; SD = 12.95). There are 20 individuals who constitute this group of never married 26-35 year olds. They report low scores particularly for Satisfaction with Relationships and Satisfaction with Achievements. However, their SWB scores are not significantly lower than the never married 26-35 year olds in Study 1. It is unlikely that these 20 individuals are bringing down the scores of the entire Study 2 sample. This finding may go some way to explaining the lower wellbeing scores of the Study 2 sample, but is not sufficient on its own to provide a valid explanation.

Figure 11 compares the marital status x SWB data reported above to the normative ranges derived from the mean scores of 22 surveys of the Australian Unity Wellbeing Index.

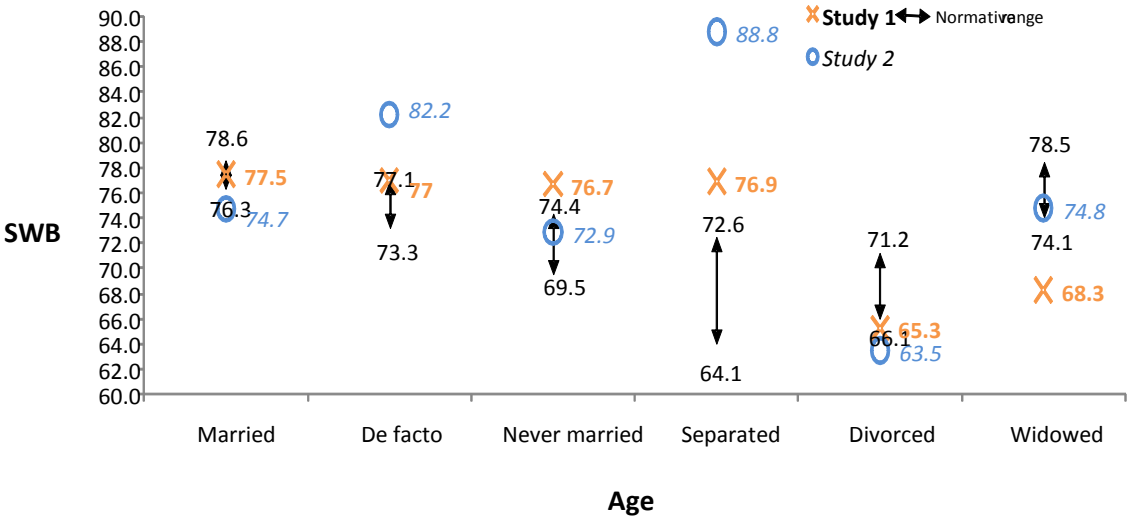

Figure 11: SWB mean scores for marital status compared to the normative means from 22 surveys of the Australian Unity Wellbeing Index.

Figure 11 shows that for de facto and separated participants in Study 2, SWB is higher than both their Study 1 counterparts, and is beyond the normal range of the general Australian population. Married participants in Study 2 reported lower SWB than Married Jews in Study 1, and the general population. Divorced participants scored below the normal range, although widowed participants scored within the normal range and higher than Study 1 widows. Since most scores for the SWB of Study 2 participants based on marital status hover within or above the normal range, the lower score for the entire Study 2 sample cannot be explained by differences in marital status.

Survivor status

As was done for Study 1, participants were then split according to their answer to the question "Are you, or are/were any of your parents or grandparents survivors of the Holocaust?" The 6 survivors in this sample were kept out of the following analyses, to maintain consistency with the results in Study 1.

Table 58:

Comparing descendants of survivors to other Jews who are not descendants of survivors

	Descendant of Survivor (N = 144)		Not descendant of survivor (N = 52)		
Variable	Mean	SD	Mean	SD	ANOVA
PWI – Life as a Whole	74.02	18.72	69.62	17.15	F(1, 196) = 2.219, p = .138
SWB – Total Score	**75.47**	**13.77**	**69.98**	**14.83**	**F(1, 194) = 5.831, p = .017**
HPMood	71.32	17.04	69.17	15.72	F(1, 194) = .634, p = .427
Positive Affect	69.32	16.11	66.23	15.51	F(1, 192) = 1.426, p = .234
Negative Affect	39.51	19.24	39.85	16.84	F(1, 192) = .013, p = .910
Self Esteem	79.84	19.17	79.73	18.04	F(1, 195) = .001, p = .973
Neuroticism	45.65	19.20	41.01	20.59	F(1, 193) = 2.139, p = .145
Extraversion	55.50	24.46	57.91	25.18	F(1, 195) = .360, p = .549
Conscientiousness	73.14	16.09	71.01	16.04	F(1, 194) = .668, p = .415
Agreeableness	77.90	17.28	80.00	13.93	F(1, 195) = .616, p = .434
Openness to Experiences	67.51	16.10	63.90	17.41	F(1, 196) = 1.850, p = .175
Compliance – Compulsive Organisation	56.38	22.09	50.20	16.71	F(1, 190) = 3.192, p = .076
Compliance – Striving	76.20	13.31	76.08	12.82	F(1, 193) = .003, p = .954
Mother Care	68.23	24.77	69.71	26.41	F(1, 190) = .129, p = .720
Mother Control	40.94	23.72	35.72	23.19	F(1, 193) = 1.844, p = .176
Father Care	61.98	24.07	65.63	24.20	F(1, 185) = .817, p = .367
Father Control	33.01	20.74	29.28	22.19	F(1, 185) = 1.088, p = .298
PTSD - intrusion	**37.62**	**22.57**	**24.85**	**22.96**	**F(1, 195) = 12.004, p = .001**
PTSD – avoidance	23.74	18.48	19.03	17.24	F(1, 192) = 2.495, p = .116
DASS – stress	32.44	23.68	30.96	22.11	F(1, 187) = .148, p = .701
DASS - anxiety	15.11	19.37	16.01	21.21	F(1, 191) = .077, p = .782

For the sample in the second study, descendants of Holocaust survivors actually reported a higher SWB than those who were not descendants of survivors. However, they also reported a higher prevalence of symptoms of PTSD (intrusion). The lower SWB scores for non-descendants of survivors appears inconsistent with findings from Study 1. To test, mean scores for descendants of survivors on wellbeing variables were compared across the two studies.

Comparing study 1 and study 2 samples on wellbeing variables according to whether or not participant is a descendant of a survivor

Table 59:

Descendants of survivors in both studies

	Descendant of Survivor in Study 1 (N = 160)		Descendant of Survivor in Study 2 (N = 138)		
Variable	Mean	SD	Mean	SD	ANOVA
Life as a Whole	75.00	15.61	74.05	18.94	F(1, 300) = .227, p = .634
SWB – Total Score	76.78	12.89	75.57	13.91	F(1, 296) = .608, p = .436
HPMood	72.63	13.89	71.21	17.32	F(1, 298) = .620, p = .432
Self Esteem	80.70	13.93	79.69	19.37	F(1, 300) = .279, p = .598

There were no differences in the wellbeing variables for descendants of survivors in study 1 compared to descendants of survivors in study 2. Mean scores for wellbeing variables for non-descendants of survivors across both studies were then compared.

Table 60:

Non-descendants of survivors in both studies

	Not descendant of Survivor in Study 1 (N = 104)		Not descendant of Survivor in Study 2 (N = 52)		
Variable	Mean	SD	Mean	SD	ANOVA
Life as a Whole	76.36	12.78	69.62	17.15	**F(1, 154) = 7.640, p = .006**
SWB – Total Score	77.22	8.92	69.98	14.83	**F(1, 154) = 14.440, p = .000**
HPMood	76.38	10.68	69.17	15.72	**F(1, 154) = 11.400, p = .001**
Self Esteem	82.40	12.55	79.73	18.04	F(1, 154) = 1.163, p = .283

The non-descendants of survivors in Study 2 reported lower SWB, lower Satisfaction with Life as a Whole, and lower HPMood than the non-descendants in Study 1. Further exploration reveals that, compared to their counterparts in Study 1, non-descendants of survivor in Study 2 are significantly older (Study 1 Mean = 35.38, SD = 13.42; Study 2 Mean = 40.78, SD = 15.76) and report a significantly lower income rate. However, this income rate is still above the average rate of the general Australian population (Cummins et al., 2010) and so the reasons why this group of non-descendants of survivors in Study 2 score

particularly low is not well understood. Figure 12 compares descendants of survivors to non-descendants of survivors on each domain of the PWI.

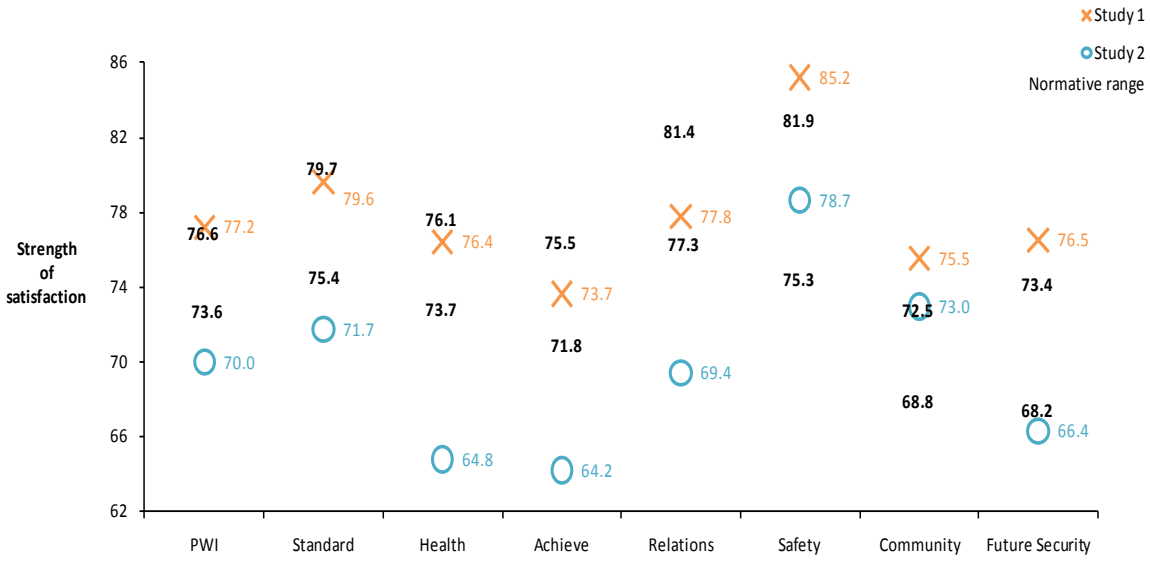

Figure 12: Plotting the means for non-descendants of survivors for each domain of the PWI against normative means from 22 surveys of the Australian Unity Wellbeing Index

Figure 12 shows that non-descendants of survivors in Study 2 score below the normative Australian range for all domains of the PWI, except Safety and Community (where they are actually above the normal range). Not only are these scores outside of the normal range for all Australians, but they are markedly different from their non-descendant of survivors counterparts from Study 1. For future analyses, where data are available from the 18th longitudinal survey of the Australian Unity Wellbeing Index, that sample will form the control group against which families of survivors will be compared, in place of the non-descendants of survivors.

SURVIVOR STATUS

Participants were then split according to whether they were Holocaust survivors, children of survivors, grandchildren of survivors, or not descendants of survivors. Table 61 shows the means and standard deviations for all measured variables. To maintain consistency with the results from Study 1, survivors in this sample were not included in the ANOVAs.

Table 61:

Comparing participants' scores on all measured variables according to survivor status

	Survivor (N = 6)		Child of survivor (N = 65)		Grandchild of survivor (N = 73)		Not survivor or descendant of survivor (N = 52)		
Variable	M	SD	M	SD	M	SD	M	SD	ANOVA (excluding survivors)
PWI – Life as a Whole	73.33	13.66	72.50	21.52	75.48	16.25	69.62	17.15	F(2, 189) = 1.547, p = .215
									F(2, 187) = 3.887, p = .022
SWB – Total Score	73.13	10.42	73.83	15.15	77.11	12.62	69.98	14.83	Grandchild > not, p = .016
HPMood	73.89	8.80	70.25	19.47	72.11	15.09	69.17	15.72	F(2, 187) = .484, p = .617
Positive Affect	76.00	9.70	67.93	17.30	70.14	15.30	66.23	15.51	F(2, 186) = .913, p = .403
Negative Affect	37.50	18.77	39.00	20.76	40.14	18.05	39.85	16.84	F(2, 185) = .067, p = .936
Self Esteem	84.00	13.04	79.44	20.08	79.91	18.84	79.73	18.04	F(2, 189) = .011, p = .989
Neuroticism	49.58	5.79	46.00	21.06	45.00	18.26	41.01	20.59	F(2, 186) = .992, p = .373
Extraversion	50.56	8.80	52.04	25.78	59.09	23.74	57.91	25.18	F(2, 188) = 1.550, p = .215
Conscientiousness	77.50	7.42	76.27	17.39	69.90	14.80	71.01	16.04	F(2, 187) = 2.983, p = .053
Agreeableness	75.83	18.28	78.58	18.93	77.43	15.76	80.00	13.93	F(2, 188) = .364, p = .696
Openness to Experiences									**F(2, 189) = 4.485, p = .012**
									Grandchild > child, p = .021
	70.00	11.55	63.53	16.99	70.96	14.87	63.90	17.41	Grandchild > not, p = .048
Compliance – Compulsive Organisation	67.92	12.89	57.08	24.40	54.74	20.27	50.20	16.71	F(2, 183) = 1.523, p = .221
Compliance – Striving	71.67	5.06	75.51	14.04	77.22	13.08	76.08	12.82	F(2, 186) = .295, p = .745

	Survivor (N = 6)		Child of survivor (N = 65)		Grandchild of survivor (N = 73)		Not survivor or descendant of survivor (N = 52)		
Variable	M	SD	M	SD	M	SD	M	SD	ANOVA (excluding survivors)
									F(2, 184) = 6.134, p = .003
Mother Care	77.33	14.51	60.21	24.82	74.93	23.26	69.71	26.41	Grandchild > child, p = .002
Mother Control	30.28	27.29	45.05	25.98	38.15	20.80	35.72	23.19	F(2, 186) = 2.608, p = .076
Father Care	49.44	17.11	58.28	23.90	65.89	24.01	65.63	24.20	F(2, 181) = 2.052, p = .131
Father Control	36.67	21.21	36.59	24.52	29.58	16.09	29.28	22.19	F(2, 182) = 2.467, p = .088
									F(2, 188) = 5.798, p = .004 Child > not, p = .003
PTSD - intrusion	53.10	22.79	38.76	24.91	35.30	19.87	24.85	22.96	Grandchild > not, p = .032
PTSD – avoidance	35.42	14.48	26.05	19.90	20.72	16.91	19.03	17.24	F(2, 185) = 2.485, p = .086
DASS Stress	41.20	15.59	31.89	24.98	32.31	23.13	30.96	22.11	F(2, 181) = .049, p = .952
DASS Anxiety	23.00	21.89	15.70	20.91	14.03	17.83	16.01	21.21	F(2, 185) = .188, p = .829

Unlike for the sample in the first study, the group of Holocaust survivors in the second study did not report lower scores for the wellbeing variables (SWB, Life as a Whole, and HPMood). However, they do appear to score higher on both Intrusion and Avoidance subscales of PTSD, and on both Stress and Anxiety subscales of the DASS. Second generation survivors reported a mean score for HPMood that was very similar to the same group in the first study, however it appears here to be similar to the scores for the non-descendants of survivors. The most noticeable difference is evident for the Intrusion subscale of PTSD. Both children of survivors and grandchildren of survivors report greater symptoms of Intrusive PTSD than those who are not descendants of survivors.

As the non-descendants of survivors do not constitute a normal comparison group, data from the 18nd longitudinal survey of the Australian Unity Wellbeing Index were accessed. Table 62 shows the means and standard deviations for descendants of survivors compared to the general Australian population for common measured variables.

Table 62:

Comparing descendants of survivors to a general Australian sample

	Descendant of Survivor (N = 140)		General Australian sample (N = 292)		
Variable	Mean	SD	Mean	SD	ANOVA
PWI – Life as a Whol e	74.00	19.11	76.40	17.93	F(1, 430) = 1.630, p = .202
SWB	75.86	14.72	74.37	15.34	F(1, 417) = .899, p = .344
HPMood	**71.04**	**17.87**	**74.88**	**16.18**	**F(1, 429) = 4.942, p = .027**
Self Esteem	79.69	19.37	78.35	15.78	F(1, 431) = .587, p = .444
Neuroticism	**45.47**	**19.57**	**33.02**	**17.20**	**F(1, 426) = 44.681, p = .000**
Extraversion	**55.71**	**24.90**	**45.86**	**22.69**	**F(1, 423) = 16.594, p = .000**
DASS – stress	**32.11**	**23.91**	**23.60**	**20.69**	**F(1, 419) = 13.974, p = .000**
DASS - anxiety	14.82	19.30	11.66	15.48	F(1, 426) = 3.307, p = .070

**Note: the total SWB scores compared here do not include the domain of Satisfaction with Spirituality/Religion. The general Australian sample were given the option of selecting "n/a" if they did not have any spiritual or religious beliefs, so in order to maintain consistency this domain was excluded from the calculation of SWB.*

SECOND GENERATION SURVIVORS

Having established that the normative Jewish sample do not provide a solid basis of comparison for wellbeing variables, second generation survivors (as a group) were compared to the general Australian sample.

Table 63:

Comparing second generation survivors to the general Australian sample

	Second Generation survivor (N = 67)		General Australian sample (N = 292)		
Variable	Mean	SD	Mean	SD	ANOVA
Life as a Whole	72.39	21.82	76.40	17.93	F(1, 357) = 2.511, p = .114
SWB	73.85	16.16	74.37	15.34	F(1, 344) = .060, p = .807
HPMood	**69.91**	**20.47**	**74.88**	**16.18**	**F(1, 358) = 4.651, p = .032**
Neuroticism	**46.00**	**21.06**	**33.02**	**17.20**	**F(1, 354) = 27.778, p = .000**
Extraversion	52.04	25.78	45.86	22.69	F(1, 350) = 3.815, p = .052
Self Esteem	79.44	20.08	78.35	15.77	F(1, 358) = .236, p = .628
DASS Stress	**31.89**	**24.98**	**23.60**	**20.69**	**F(1, 347) = 7.571, p = .006**
DASS Anxiety	15.70	20.91	11.66	15.48	F(1, 354) = 3.158, p = .076

Second generation survivors recorded lower HPMood, higher Neuroticism, and higher Stress than the general Australian sample.

For variables where data were only available for the Jewish sample, second generation survivors were compared to other Jewish people who were not descendants of survivors. Table 64 shows the means, standard deviations and ANOVAs for variables where significant differences were found.

Table 64:

Comparing second generation survivors to non-descendants

	Second Generation Survivor (N = 66)		Not descendant of Survivor (N = 52)		
Variable	Mean	SD	Mean	SD	ANOVA
Mother Care	60.21	24.82	69.71	26.41	**F(1, 114) = 3.957, p = .049**
Mother Control	44.87	25.82	35.72	23.19	**F(1, 115) = 3.948, p = .049**
PTSD Intrusion	38.63	24.75	24.85	22.96	**F(1, 117) = 9.622, p = .002**
PTSD Avoidance	26.24	19.81	19.03	17.24	**F(1, 114) = 4.212, p = .042**

Second generation survivors in the second study were then split according to whether they had one parent or two parents who were survivors.

Table 65:

Comparisons between children of survivors who have one parent or both parents as survivors on wellbeing variables

	One parent survivor (N = 24)		Both parents survivors (N = 43)		
Variable	Mean	SD	Mean	SD	ANOVA
Life as a Whole	69.58	21.36	74.12	21.68	F(1, 65) = .683, p = .412
SWB	74.11	15.32	73.67	15.24	F(1, 63) = .013, p = .909
HPMood	68.33	20.50	71.31	19.04	F(1, 65) = .357, p = .552
Positive Affect	67.67	17.20	68.08	17.57	F(1, 64) = .009, p = .926
Negative Affect	37.19	21.75	40.06	20.35	F(1, 63) = .287, p = .594
Self Esteem	78.56	20.40	79.93	20.12	F(1, 65) = .071, p = .791

In contrast to Study 1, no differences were found for the sample in Study 2 between Second Generation survivors who had one parent survivor compared to two parents who were survivors. Table 66 shows the comparisons between those who had one parent Holocaust survivor, and those who were not descendants of Holocaust survivors, for both Study 1 and Study 2.

Table 66:

Comparing children of one-parent survivor to Jewish people who are not descendants of survivors.

	One parent survivor		Not descendants of survivors		
Variable	Mean	SD	Mean	SD	ANOVA
Study 1	(N = 24)		(N = 104)		
Life as a Whole	77.92	17.69	76.36	12.78	F(1, 126) = .247, p = .620
SWB	76.79	13.86	77.22	8.92	F(1, 125) = .035, p = .852
HPMood	76.81	12.37	76.38	10.68	F(1, 126) = .029, p = .864
Self Esteem	85.17	9.80	82.40	12.55	F(1, 126) = 1.018, p = .315
Study 2	(N = 24)		(N = 52)		
Life as a Whole	69.58	21.36	69.62	17.15	F(1, 74) = .000, p = .994
PWI	74.11	15.32	69.98	14.83	F(1, 74) = 1.252, p = .267
HPMood	68.33	20.50	69.17	15.72	F(1, 74) = .038, p = .846
Self Esteem	78.56	20.40	79.73	18.04	F(1, 74) = .063, p = .802

It appears that although scores for Study 2 are generally lower, a similar pattern emerges. Participants who had one parent Holocaust survivor scored no differently on the major wellbeing variables than those who were not descendants of survivors. At least in terms of wellbeing, having one parent who survived the Holocaust is no different to having parents who were not in the war at all.

Second generation survivors were then compared to third generation survivors. Table 67 displays the means and standard deviations for variables where significant differences were found.

Table 67:

Comparing second generation survivors to third generation survivors

	Second Generation Survivor (N = 67)		Third Generation Survivor (N = 72)		
Variable	Mean	SD	Mean	SD	ANOVA
Openness to Experiences	63.53	16.99	70.93	14.97	**F(1, 137) = 7.435, p = .007**
Conscientiousness	76.27	17.39	70.35	14.39	**F(1, 135) = 4.742, p = .031**
Mother Care	60.21	24.82	75.40	23.07	**F(1, 133) = 13.596, p = .000**

THIRD GENERATION SURVIVORS

Third generation survivors were then compared to those who were not descendants of survivors. Table 68 shows means and standard deviations for variables for which significant differences were found.

Table 68:

Comparing 3rd generation survivors to non-descendants of survivors

	Third Gen Survivor (N = 72)		Not descendant of survivor (N = 52)		
Variable	Mean	SD	Mean	SD	ANOVA
SWB	77.43	12.43	69.98	14.83	**F(1, 122) = 9.217, p = .003**
Life as a Whole	75.69	16.26	69.62	17.15	**F(1, 122) = 4.033, p = .047**
Openness to Experiences	70.93	14.97	63.88	17.41	**F(1, 122) = 5.800, p = .018**
PTSD Intrusion	34.90	19.70	24.85	22.96	**F(1, 121) = 6.774, p = .010**

Compared to the non-descendants of survivors in this sample, grandchildren of survivors reported higher SWB, higher Satisfaction with Life as a Whole, and greater Openness to Experiences. However, they also reported a higher rate of Intrusive symptoms of Post-Traumatic Stress Disorder.

When third generation survivors were split according to whether they had all 4 grandparents who were Holocaust survivors or not, no differences were found excepting the following two variables:

Table 69:
Comparing 3rd generation survivors with all 4 grandparents Holocaust survivors to other 3rd generation survivors

	Third Gen with all grandparents survivors (N = 25)		Other Third Gen survivors (N = 47)		
Variable	Mean	SD	Mean	SD	ANOVA
Neuroticism	50.70	17.18	41.58	18.26	**F(1, 69) = 4.212, p = .044**
DASS - Stress	39.08	24.49	27.89	20.66	**F(1, 69) = 4.020, p = .049**

As in Study 1, 3rd Generation survivors who had all 4 grandparents survive reported lower scores on all wellbeing variables, although, likely due to lack of power, these differences failed to reach statistical significance. In addition to the wellbeing variables, 3rd Generation survivors with all grandparents Holocaust survivors reported lower Extraversion, and perceived both their mothers and fathers to be less Caring, although again statistical significance for these variables was not attained.

Compared to non-descendants of survivors, 3rd generation survivors who had all 4 grandparents who were Holocaust survivors reported significantly higher scores for Neuroticism and Agreeableness. The scores for PTSD (Intrusion subscale) are also included in Table 70. These values appear to be approaching significance.

Table 70:

Differences between 3rd Generation survivors (all 4 grandparents survivors) and non-descendants of survivors

	Third Gen with all grandparents survivors (N = 25)		Non-descendants of survivors (N = 52)		
Variable	Mean	SD	Mean	SD	ANOVA
Neuroticism	50.70	17.18	41.01	20.59	**F(1, 75) = 4.142, p = .045**
Compliance – Compulsive Organisation	59.20	20.00	50.20	16.71	**F(1, 72) = 4.195, p = .044**
PTSD – Intrusion	35.31	22.03	24.85	22.96	F(1, 74) = 3.580, p = .062

Having explored the ways in which the variables operate within the sample, and in comparison to a general Australian sample, the interrelations between the variables were then investigated.

REGRESSIONS

Some multiple regression analyses were performed. Considering that the group of non-descendants of survivors did not constitute a valid representative sample, the analyses here are performed only for individuals in the sample who are Holocaust survivors or descendants of survivors. The first explored the contributions of each domain of the Personal Wellbeing Index to overall Satisfaction with Life as a Whole. Table 71 displays the summary results.

Table 71:

Contributions of the Personal Wellbeing domains to Life as a Whole for Study 2 (for Holocaust survivors and descendants of survivors)

Predictor	r[a]	Beta[b]	sr[2c]	t
DV: Life as *a Whole*				
Standard of Living	.57	.21	.03	3.164**
Health	.48	.14	.01	2.160*
Achieving	.65	.31	.05	4.619***
Personal Relationships	.66	.40	.10	6.259***
Personal Safety	.44	.05	.00	.608
Community	.34	-.18	.02	-2.653**
Future Security	.49	.01	.00	.058
Spirituality or Religion	.38	.12	.01	1.834

Predictor	r[a]	Beta[b]	sr[2c]	t
Total explained unique variance			.22	
Total explained shared variance			.42	
	R^2 = .66		Adjusted R^2 = .64	

*Note: N = 146. [a] Zero-order correlation between domain and Life as a Whole. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

The overall equation to predict Life as a Whole was significant; R^2 = .66, F(8, 135) = 32.050, p = .000. The domains of Standard of Living, Health, Achievements, Relationships and Community were significant unique contributors to Life as a Whole. Satisfaction with Community reveals a negative Beta value in this model, which suggests that another variable or variables are acting to negatively suppress the effect of Community on Life as a Whole. Due to the shared correlations, it appears that Future Security, Spirit/Religion, and Personal Safety are the likely culprits.

The prediction of Subjective Wellbeing was then explored using the variables implicated in the Homeostatic model, namely HPMood and Self Esteem. The personality variables were also entered into a regression to predict SWB, in an effort to consolidate the way that Personality contributes to the Homeostatic model. Following this, the other variables measured in Study 2 were entered into a hierarchical regression to predict SWB.

Predicting Subjective Wellbeing

Predicting SWB from HPMood, Self Esteem and Personality

Of the five personality traits, those of Neuroticism and Extraversion are most commonly implicated in SWB studies. In order to assess the impact of these variables on SWB, they were included in a hierarchical regression analysis with HPMood and Self Esteem. To remain consistent with the idea that HPMood is the primary predictor of HPMood, followed by the buffer variables, HPMood was entered in Block 1, Self Esteem in Block 2, and the Personality variables in Block 3.Table 72 provides output from this analysis.

Table 72:

Predicting SWB from HPMood, Self Esteem and Personality

Predictor	r[a]	Beta[b]	sr^{2c}	t
DV: SWB				
Block 1				
HPMood	.74	.74	.55	13.036***
	R^2 = .55		Adjusted R^2 = .55	
Block 2				
HPMood	.74	.50	.14	7.015***
Self Esteem	.70	.36	.07	5.009***
	R^2 = .62		Adjusted R^2 = .61	
Block 3				
HPMood	.74	.50	.12	6.673***
Self Esteem	.70	.34	.06	4.578***
Neuroticism	-.47	-.06	.00	-1.020
Extraversion	.31	-.05	.00	-.853
Total explained unique variance (final model)			.18	
Total explained shared variance (final model)			.44	
	R^2 = .62		Adjusted R^2 = .61	

*Note: N = 146. [a] Zero-order correlation between domain and Life as a Whole. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

The overall equation to predict SWB from HPMood, Self Esteem and Personality variables was significant, R^2 = .62, F(4, 136) = 56.358, p = .000. Together, HPMood, Self Esteem, Neuroticism and Extraversion accounted for 62% of the variance in SWB. Only HPMood and Self Esteem emerged as significant unique predictors of SWB. When Self-Esteem was included in the model in the second step, it significantly improved the model, R^2 change = .069, F change (1, 138) = 25.088, p = .000. So, Self-Esteem explained an additional 7% of variance after HPMood was accounted for. Including Neuroticism and Extraversion to the model added no significant contribution to the prediction of SWB (R^2 change = .004, F change (2, 136) = .802, p > .05). Any influence of the Personality variables to SWB is consumed by the inclusion of HPMood and Self Esteem.

In accordance with the view that Neuroticism and Extraversion exert their effects on SWB through affect, the Personality variables were entered into a regression analysis. Table 73 displays the results of this analysis.

Table 73:

Predicting HPMood from Personality

Predictor	r[a]	Beta[b]	sr[2c]	t
DV: HPMood				
Neuroticism	-.48	-.39	.14	-5.260***
Extraversion	.42	.29	.08	3.950***
Total explained unique variance			.22	
Total explained shared variance			.09	
	R^2 = .31		Adjusted R^2 = .30	

*Note: N = 144. [a] Zero-order correlation between domain and Life as a Whole. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

The overall equation to predict HPMood was significant, R^2 = .31, F(2, 138) = 31.241, p = .000. Together, the Personality variables accounted for 31% of the variance in HPMood. It appears that if Personality does have an impact on SWB, it does so via HPMood.

Predicting SWB from other measured variables

To explore the impact of the other measured variables on SWB, they were entered into a regression analysis. In line with the idea that HPMood is the primary driver of SWB, a hierarchical regression was performed with HPMood entered first. Self-Esteem was entered in the second block. For exploratory purposes, the Attachment, PTSD, and Compliance variables were entered in the third block. Table 74 shows the results of this regression analysis.

Table 74:

Predicting SWB from HPMood, Self Esteem, and other measured variables

Predictor	r[a]	Beta[b]	sr[2c]	T
DV: SWB				
Block 1				
HPMood	.74	.74	.54	12.703***
	R^2 = .55		Adjusted R^2 = .55	
Block 2				

Predictor	r[a]	Beta[b]	sr[2c]	T
HPMood	.74	.50	.14	6.835***
Self Esteem	.70	.36	.07	4.880***
	R^2 = .62		Adjusted R^2 = .61	
Block 3				
HPMood	**.74**	**.50**	**.13**	**6.960*** **
Self Esteem	**.70**	**.25**	**.03**	**3.264****
Mother Care	**.41**	**.16**	**.01**	**2.301***
Mother Control	-.30	-.07	.00	-1.079
Father Care	.37	.03	.00	.527
Father Control	-.27	-.05	.00	-.755
PTSD Intrusion	-.27	.00	.00	-.068
PTSD Avoidance	-.37	-.05	.00	-.755
Compliance – Compulsive Organisation	.02	.00	.00	-.053
Compliance – Striving	.15	.01	.00	.152
Total explained unique variance (final model)			.17	
Total explained shared variance (final model)			.50	
	R^2 = .67		Adjusted R^2 = .65	

*Note: N = 144. [a] Zero-order correlation between domain and Life as a Whole. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

The overall equation to predict SWB was again significant, R^2 = .67, F(10, 123) = 25.468, p = .000. HPMood was entered in Block 1, explaining 55% of the variance in SWB. Self Esteem was entered in Block 2 and accounted for an additional 7% of variance, R^2 change = .069, F change (1, 131) = 23.815, p = .000. The Attachment, Compliance, and PTSD variables were entered in Block 3, and explained a further 6% of variance, R^2 change = .055, F change (8, 123) = 2.599, p < .05. Overall, the model explained 67% of variance in SWB. HPMood, Self-Esteem, and Mother Care emerged as significant unique predictors of SWB.

PATH ANALYSES

To explore the intergenerational transmission of trauma, separate path analyses were conducted to see whether Attachment, Compliance, or the acquisition of secondary PTSD could best account for the lower HPMood found in families of Holocaust survivors. To assess whether bonding to mothers or fathers better explains the data, separate paths for mothers and fathers were assessed. Each model traces the pathway from one of Mother Attachment, Father

Attachment, PTSD or Compliance through Personality to HPMood. Where variables were known to be moderately correlated, they were shown to be related in their respective models.

Comparing models

For each model, estimates were calculated. Following advice from Karantzas (2005), model fit was assessed through comparing the values of the root mean square error of approximation (RMSEA), standardised root mean square (SRMR), comparative fit index (CFI) and Tucker-Lewis index (TLI), in addition to basic comparisons of the chi-square value for each model. Further, because the models were non-nested, Akaike Information Criteria (AIC) and the Consistent Akaike Information Criterion (CAIC) were also considered as measures of model parsimony. According to these values, the following guidelines for a good model were set: A good model will have RMSEA and SRMR values approaching zero. CFI and TLI values should approach 1. Lower chi-square values indicate better model fit. Lower AIC and CAIC are preferred.

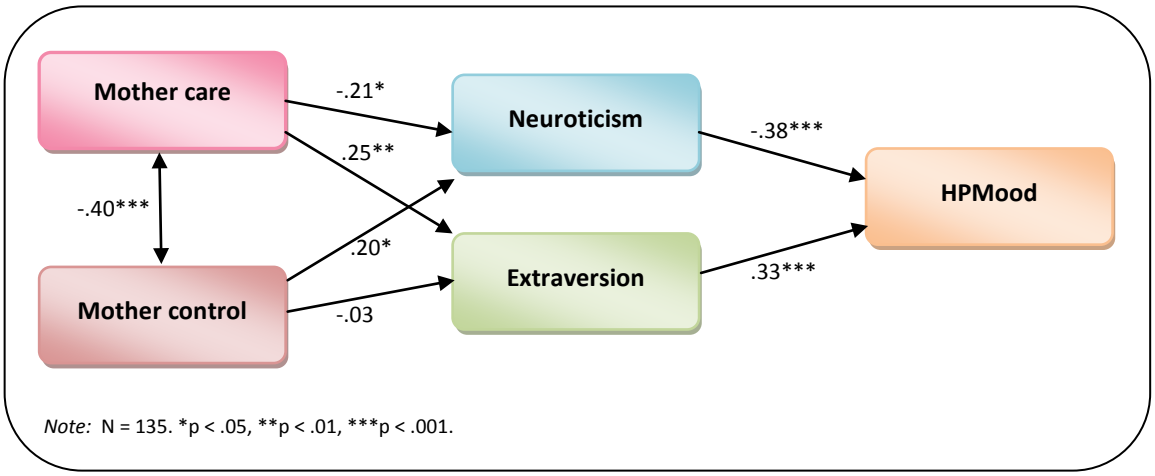

Figure 13: The pathway from Mother Attachment through Personality to HPMood

Figure 13 shows the standardised regression weights (β-weight) for each pathway.

In this model all pathways are significant at least at the .05 level, except for the pathway from Mother Control to Extraversion. This is to be expected as the theory governing the relationship between attachment and personality suggests

that Mother Control exerts its effects on personality via the trait of Neuroticism. The fit indices in Table 75 hint that the model may be close to being a good fit, and Table 76 displays the significant pathways within the model.

Table 75:

Fit indices for Mother Attachment model

Mother Attachment									
X^2	P	df	X^2 /df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
10.139	.017	3	3.38	.133	.0676	.930	.767	34.139	81.002

Table 76:

Estimates showing significant pathways (Mother attachment model)

Pathway			B-weight	Standard Error	t-test	P
Extraversion	←	Mother Care	.252	.092	2.736	.006
Neuroticism	←	Mother Control	.164	.072	2.291	.022
Neuroticism	←	Mother Care	-.165	.068	-2.414	.016
Extraversion	←	Mother Control	-.032	.096	-.327	.744
HPMood	←	Neuroticism	-.328	.064	-5.166	***
HPMood	←	Extraversion	.219	.049	4.519	***

*Note: *** indicates p = .000.*

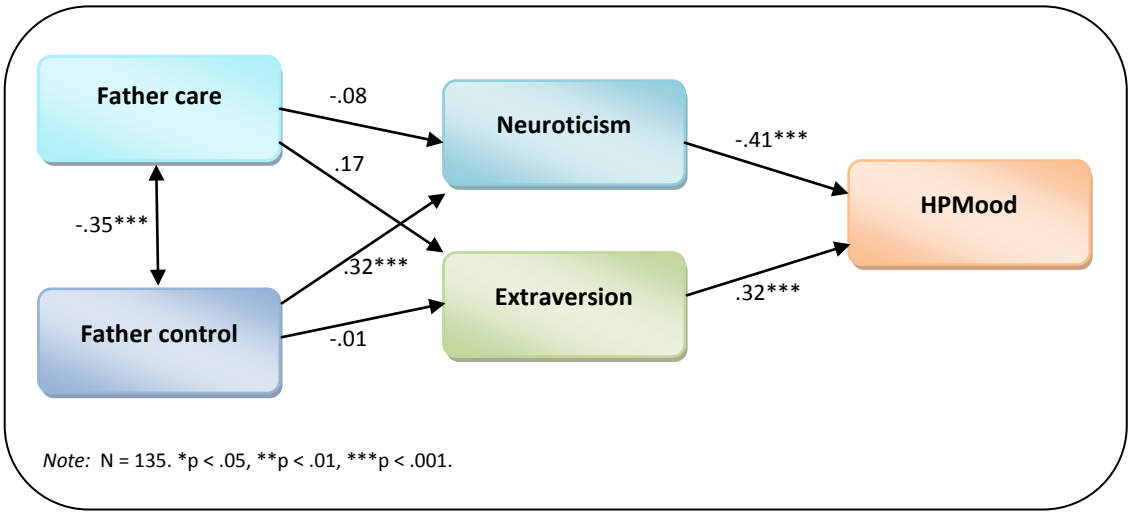

Figure 14: The pathway from Father Attachment through Personality to HPMood

Figure 14 shows the standardised regression weights (β-weight) for each pathway. In this model the pathways from Father Care to the Personality variables are not-significant, although the pathway from Father Control to Neuroticism is significant. The fit indices in Table 77 suggest that the model is not quite a good fit and estimates are shown in Table 78.

Table 77:

Fit indices for Father Attachment model

Father Attachment									
X^2	P	df	X^2/df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
17.222	.001	3	5.74	.188	.0858	.859	.530	41.222	88.085

Table 78:

Estimates showing significant pathways (Father attachment model)

Pathway			B-weight	Standard Error	t-test	P
Extraversion	←	Father Care	.172	.095	1.818	.069
Neuroticism	←	Father Control	.304	.081	3.750	***
Neuroticism	←	Father Care	-.065	.070	-.932	.351
Extraversion	←	Father Control	-.009	.110	-.084	.933
HPMood	←	Neuroticism	-.350	.063	-5.594	***
HPMood	←	Extraversion	.214	.049	4.397	***

*Note: *** indicates p = .000.*

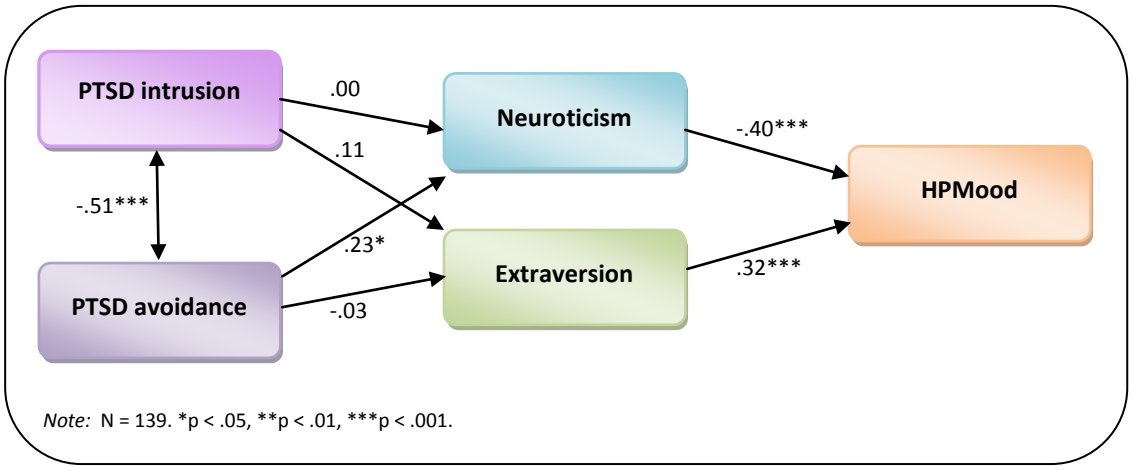

Figure 15: The pathway from PTSD through Personality to HPMood

Figure 15 shows the standardised regression weights (β-weight) for each pathway. In this model the pathway from Avoidance to Neuroticism is significant, as are the pathways linking the Personality traits to HPMood. The fit indices in Table 79 show that the model does not fit very well, and estimates are shown in Table 80.

Table 79:

Fit indices for PTSD model

PTSD									
X^2	P	df	X^2 /df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
21.265	.000	3	7.09	.210	.1007	.840	.466	45.265	92.479

Table 80:

Estimates showing significant pathways (PTSD model)

Pathway			B-weight	Standard Error	t-test	P
Extraversion	←	PTSD Intrusion	-.124	.107	-1.165	.244
Neuroticism	←	PTSD Avoid	.236	.100	2.351	.019
Neuroticism	←	PTSD Intrusion	.002	.082	.029	.977
Extraversion	←	PTSD Avoid	-.040	.131	-.304	.761
HPMood	←	Neuroticism	-.337	.062	-5.464	***
HPMood	←	Extraversion	.208	.048	4.330	***

Note: *** indicates p = .000.

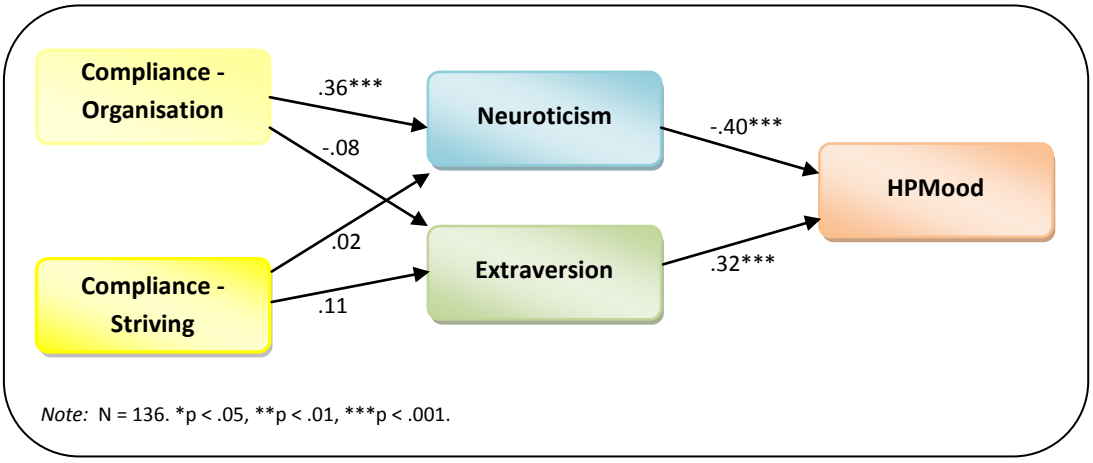

Figure 16: The pathway from Compliance through Personality to HPMood

Figure 16 shows the standardised regression weights (β-weight) for each pathway. In this model the pathway from Compulsive Organisation to

Neuroticism is significant, as are the pathways from the Personality variables to HPMood. The fit indices in Table 81 show that the model does not fit very well, and Table 82 gives the estimates for the model.

Table 81:

Fit indices for Compliance model

Compliance									
X^2	P	df	X^2 /df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
26.532	.000	4	6.63	.204	.1018	.749	.372	48.532	91.571

Table 82:

Estimates showing significant pathways (Compliance model)

Pathway			B-weight	Standard Error	t-test	P
Extraversion	←	Organisation	-.089	.096	-.921	.357
Neuroticism	←	Striving	.025	.117	.209	.834
Neuroticism	←	Organisation	.313	.070	4.475	***
Extraversion	←	Striving	.202	.161	1.250	.211
HPMood	←	Neuroticism	-.344	.063	-5.471	***
HPMood	←	Extraversion	.211	.049	4.346	***

*Note: *** indicates p = .000.*

Table 83 combines the fit statistics for each model so that they can be directly compared.

Table 83:

Fit indices for all tested models

	Mother Attachment	Father Attachment	PTSD	Compliance
X^2	10.139	17.222	21.265	26.532
P	.017	.001	.000	.000
df	3	3	3	4
X^2 /df	3.38	5.74	7.09	6.63
RMSEA	.133	.188	.210	.204
SRMR	.0676	.0858	.1007	.1018
CFI	.930	.859	.840	.749
TLI	.767	.530	.466	.372
AIC	34.139	41.222	45.265	48.532
CAIC	81.002	88.085	92.479	91.571

On all fit indices, it appears that the model that traces Mother Attachment through Personality to HPMood gives the best fit. It has the lowest chi-square value, RMSEA and SRMR values, the highest CFI and TLI values, and the lowest AIC and CAIC values. This suggests that the intergenerational transmission of trauma, at least for this sample, can be best explained as being the result of mothers' influence on their children's resulting personality which then predicts their affect.

Considering the results of the hierarchical regression which showed that Mother Care explains additional variance in SWB after HPMood has been accounted for, the interrelationships among the Mother variables, Personality variables, HPMood, and SWB were explored. The following model is similar to Figure 13, although it includes SWB, with HPMood and Mother Care both implicated as direct predictors.

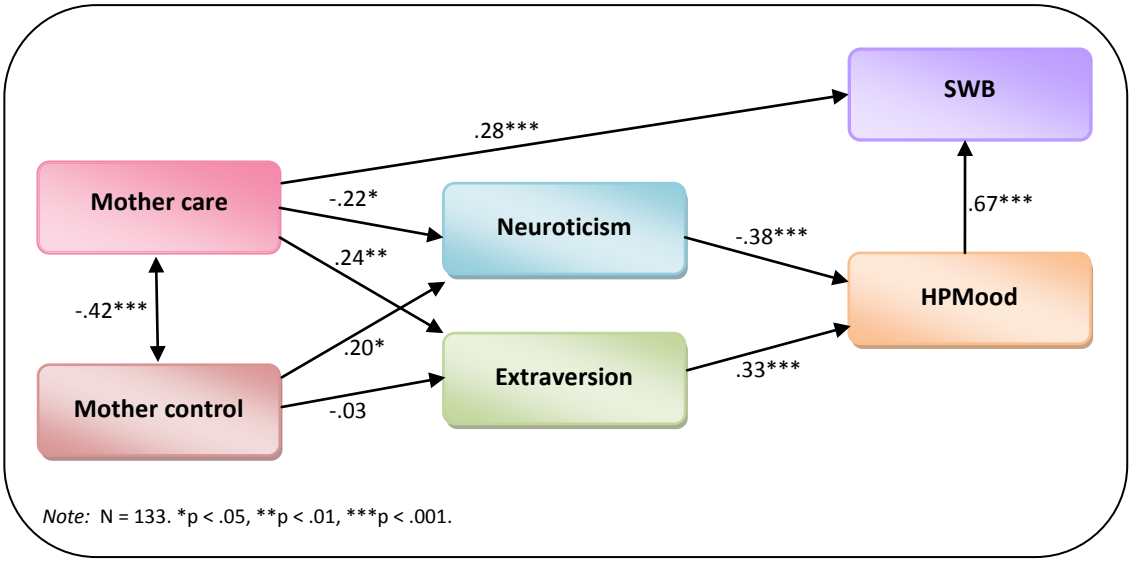

Figure 17: Explaining the way Mother Attachment influences SWB

Tables 84 and 85 show the fit indices and estimates for the model displayed in Figure 16.

Table 84:

Fit indices for Mother Attachment model including SWB

Mother Attachment to SWB									
X^2	P	Df	X^2 /df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
16.250	.012	6	2.71	.114	.0631	.955	.889	46.250	104.605

Table 85:

Estimates showing significant pathways (Mother Attachment including SWB model)

Pathway			B-weight	Standard Error	t-test	P
Extraversion	←	Mother Care	.249	.096	2.595	.009
Neuroticism	←	Mother Control	.163	.072	2.270	.023
Neuroticism	←	Mother Care	-.170	.070	-2.413	.016
Extraversion	←	Mother Control	-.034	.098	-.345	.730
HPMood	←	Neuroticism	-.332	.064	-5.153	***
HPMood	←	Extraversion	.217	.049	4.443	***
SWB	←	HPMood	.556	.046	12.095	***
SWB	←	Mother Care	.158	.031	5.054	***

*Note: *** indicates p = .000.*

Table 85 shows that the only non-significant pathway in the model is that from Mother Control to Extraversion. Attachment theory dictates that Parental Control usually exerts its effects on wellbeing through the trait of Neuroticism, and so in an attempt to increase model parsimony, the pathway from Mother Control to Extraversion was trimmed. The re-estimated model is shown in Figure 18.

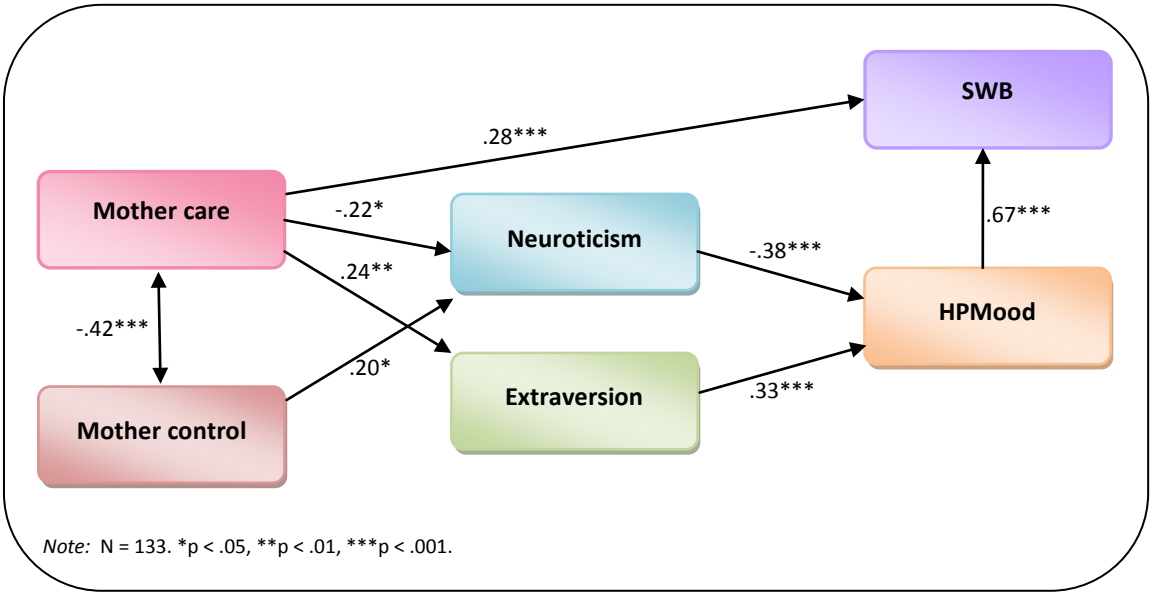

Figure 18: Explaining the way Mother Attachment influences SWB (trimmed model).

Table 86 shows the fit indices for the trimmed model in Figure 18.

Table 86:

Fit indices for Mother Attachment model including SWB (trimmed model)

Mother Attachment to SWB (trimmed)									
X^2	P	df	X^2 /df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
16.369	.022	7	2.34	.101	.0645	.959	.913	44.369	98.834

The trimmed model shows no significant difference in chi-square from the original model (X^2 Model 2 - X^2 Model 1 = .119, p < .001), implying that the pathway from Mother Control to Extraversion did not contribute to the overall model. The trimmed model does, however, result in smaller AIC and CAIC values, indicating that it is more parsimonious than the original.

Examination of the Modification Indices of the above model revealed that the addition of an arrow joining Extraversion to Neuroticism may significantly improve the model. This new path was added and the following model obtained:

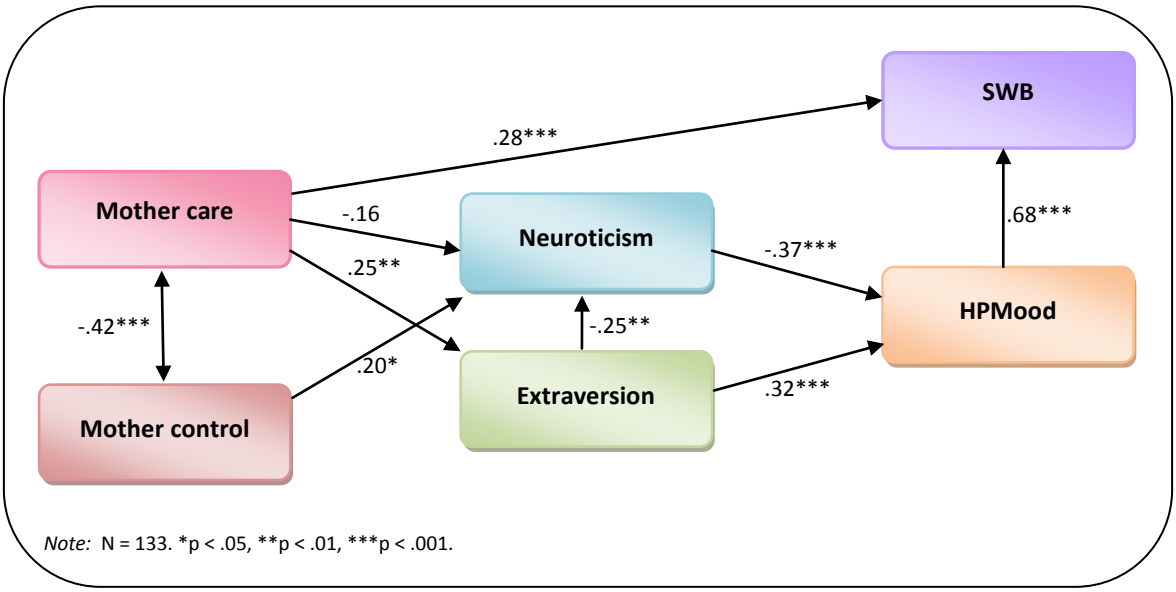

Figure 19: Explaining the way Mother Attachment influences SWB (respecified model).

Table 87 shows the fit indices for the respecified model shown in Figure 19, with the added pathway between the personality variables.

Table 87:

Fit indices for Mother Attachment model including SWB (respecified model)

Mother Attachment to SWB (trimmed with added pathway)									
X^2	P	Df	X^2/df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
7.301	.294	6	1.22	.041	.0251	.994	.986	37.301	95.656

The fit indices for the model in Figure 19 indicate that it is a better model than those in Figures 17 and 18 on all respects. It has a smaller and non-significant chi-square value and there is less change in the chi-square value per degree of freedom. Further the RMSEA and SRMR values in the model in Figure 19 are closer to 0, and the CFI and TLI values are closer to 1. Finally, the model in Figure 19 has lower AIC and CAIC values, indicating greater parsimony. Table 88 shows the estimates for the pathways in Figure 19.

Table 88:

Estimates showing significant pathways (Respecified Mother Attachment to SWB model)

Pathway			B-weight	Standard Error	t-test	P
Extraversion	←	Mother Care	.262	.087	3.015	.003
Neuroticism	←	Mother Control	.157	.069	2.257	.024
Neuroticism	←	Extraversion	-.189	.062	-3.065	.002
Neuroticism	←	Mother Care	-.123	.070	-1.756	.079
HPMood	←	Neuroticism	-.332	.068	-4.909	***
HPMood	←	Extraversion	.217	.051	4.238	***
SWB	←	HPMood	.556	.045	12.450	***
SWB	←	Mother Care	.158	.031	5.060	***

*Note: *** indicates p = .000.*

Table 88 shows that all pathways in the model were significant, except for the pathway from Mother Care to Neuroticism. Although Attachment Theory suggests that Care often influences personality via Extraversion, the Model shown above gives a better fit to the data than if the pathway from Mother Care to Neuroticism were removed. Thus, the model shown in Figure 19 will be treated as the model which provides the best fit to the data gathered from Study 2.

CHAPTER 10: STUDY 2 DISCUSSION

The major aim of the second study was to replicate the findings from Study 1, particularly in relation to families of Holocaust survivors. Specifically, Study 2 aimed to replicate the finding that children of survivors who had both parents survive the Holocaust would report lower HPMood than children of survivors who only had one parent survive. Further, Study 2 aimed to explore the mechanisms by which HPMood and SWB may be affected by perceived parental bonding, post-traumatic stress disorder, and personality.

Jewish wellbeing

The sample recruited for Study 2 reported lower Life Satisfaction and lower HPMood than the general Australian sample. This is in stark contrast to the sample for Study 1. Upon further exploration of the demographics of the Study 1 and Study 2 samples, including gender, age, income and marital status, no valid explanation for the lower scores for the Study 2 sample was revealed. However, when participants were grouped according to whether or not they were descendants of Holocaust survivors, it was revealed that those who were not descendants of survivors scored particularly low on the wellbeing variables. They scored significantly lower than their counterparts in Study 1. Exploration of the demographic variables of this group revealed that they were significantly older, reported lower income, and were slightly more religious than non-descendants of survivors in Study 1. Only 52 participants belonged to this group, and it became apparent that, at least for the wellbeing variables, they did not comprise a good normal sample against which to compare the descendants of survivors. Thus, wherever possible, descendants of Holocaust survivors were compared to the normal Australian sample.

When descendants of survivors were compared to a general Australian sample, they did indeed report lower HPMood. This finding echoes that of Study 1, and further consolidates the findings of Kellerman (1999) and Gottschalk (2003) in regards to affective disturbances for this sample.

Comparisons within second generation survivors

The major finding from Study 1 was not replicated in the Study 2. There were no differences between Second Generation survivors who had one parent or both parents survive. However, consistent with Study 1, those who were children of one parent survivor reported scores for wellbeing that were no different to the normal Jewish group (i.e. those who were not children of survivors).

Children of two parent survivors in Study 2 reported scores for wellbeing variables that were no different to their counterparts in Study 1. The scores for those who had one parent survive appear lower than their counterparts in Study 1. In the same way that the normative Jewish sample does not provide a good basis of comparison for wellbeing variables, it seems that those who had only one parent survive the Holocaust fall into the same category.

Thus, the idea that having two parents who were Holocaust survivors somehow magnifies the trauma experienced by the second generation was not confirmed. The fact that differences were evident in the Study 1 sample, and considering the Study 2 sample appeared biased to report lower wellbeing, seems to warrant further exploration of the particular effect of being a child of two Holocaust survivors.

Exploratory findings

Findings related to Attachment

Preliminary exploration of the ways in which trauma may have been passed down from survivors to their children and grandchildren involved comparing these participants in terms of Care and Control from each parent, to eachother and to the non-survivor group. When children of survivors were compared to the normative group of non-survivor Jews, they reported significantly lower Mother Care, and higher Mother Control. These findings are in contrast to the participants of Halik et al.'s (1990) study who actually reported no differences in Maternal Care and Control of Holocaust survivor's daughters to immigrant and non-immigrant comparisons. They also contrast with the findings of Kellerman (2001c) who found no differences for mothers in terms of affection or protection.

The findings of the present study, however, fit the idea that parenting (or in this case, mothering) is somehow distorted by the Holocaust experience.

For children of survivors, the same patterns for Father Care and Father Control were found, although they did not prove significant. This is consistent with the findings of Kellerman (2001c) who found no differences between survivor fathers and non-survivor fathers on measures of affection and over-protection. The almost-significant findings do, however, suggest that with a larger sample the differences for fathers may have proven statistically significant. It is also necessary to consider that participants here were asked to provide their perceptions of their parents' behaviour as they remember them in the first 16 years of their life. Given that the average age of children of survivors was 51.24 (SD = 9.04), participants are here asked to remember and report the behaviour of their parents in retrospect, and it is possible that their parents behaviour since the first 16 years of their life clouded their responses as well. Further, participants were not asked whether their parents were still alive or not. If a father was very controlling in their child's early life, but had since passed away, their children may wish to remember them in a 'better' light, and thus report them as less controlling and more caring. This may help to explain why no findings were evident for Father Attachment, though it cannot explain the findings that were found for Mother Attachment.

For grandchildren of survivors, reported Mother Care was higher than for children of survivors. So, while children of survivors perceived their mothers to be less caring, their subsequent parenting appears to be perceived by their own children as more caring. There were no significant differences found between grandchildren of survivors and participants from non-survivor families for Mother Care or Control, indicating that perhaps the effects of the Holocaust, at least in terms of parenting, seem to have diminished through the generations. In addition, no differences were found for paternal Care or Control in grandchildren of survivors. No study to date has explored attachment in grandchildren of survivors, so any particular effects of the Holocaust in regards to parenting for the third generation appear to not yet have been established.

When the attachment variables were entered into models to predict HPMood for descendants of survivors only, the model tracing the path from Mother Care and Mother Control through Personality to HPMood fit the data better than any of the other tested models. This supports the findings that Care and Control affect Personality, based on the premise of Thomas (2004) that high Care predicts Extraversion, low care predicts Neuroticism, and high Control predicts Neuroticism. Each of these relationships proved significant in the path analysis.

Further, the model confirmed the role of personality in the homeostatic model, specifically in terms of its influence on Affect. Extraversion positively predicted HPMood. Since the measure of HPMood is, by nature, a measure of generally positive affect, this finding can be said to support those of Cummins, Gullone, and Lau (2002), and Headey and Wearing (1989). In addition, Neuroticism significantly predicted HPMood, consistent with the claims of Cummins, Gullone, and Lau (2002) and Headey and Wearing (1989). Although these authors claimed that Neuroticism influenced HPMood by increasing negative affect, this was not specifically shown in the current study. The negative beta weight does, however, imply that higher Neuroticism predicts a reduction in positive affect, it is just not clear from these measures whether it increases negative affect concordantly. Further, although the model does not reveal causality, it does suggest that the pathway from Personality to Affect fits the data. So, although it still cannot be claimed that the causal relationship flows from Personality to Affect and not vice versa (as suggested in the Homeostatic model), it can at least be inferred that for this sample, the pathway from Personality to Affect is justified.

In addition, the model that traced Father Care and Control through Personality measures to Affect proved to be the next best-fitting model, further confirming the predicted associations between Care and Control and Extraversion and Neuroticism. Furthermore, the relationship between the personality variables and Affect is also consolidated by this model. It appears clear that Attachment plays a major role in the intergenerational transmission of trauma, and best explains the way that HPMood is affected for descendants of Holocaust survivors.

Exploratory analyses exposed Mother Care as a significant, unique predictor of SWB. The role of Mother Care is yet to be explored in the Homeostatic model, however in this study it was found to contribute additional variance to SWB after HPMood and Self Esteem had been accounted for. Mother Care in this study represents the perceived affection and warmth received from one's mother in the first 16 years of life. It seems almost intuitive that being the recipient of constant and unconditional love and support in the early years should influence the SWB of the developing adult. However, the research suggests that Attachment, and Care in particular, influence affect through its effect on personality and self-worth (Kenny & Sirin, 2006). It is therefore surprising that Mother Care has an effect on SWB that is not consumed by the variables already present in the homeostatic model. This finding may, however, support the findings of Hallowell, Bemporad, and Ratey (1989) that those who experience lower care may be more vulnerable to depression. The model developed in the current study suggests a direct relationship between Mother Care and SWB, and the homeostatic model proposes that those who fall below a certain range of SWB may become vulnerable to depression. Thus, the role of Mother Care in the Homeostatic model appears to warrant further investigation.

Findings related to PTSD

Symptoms of post-traumatic stress were found to be higher in descendants of Holocaust survivors than non-descendants of survivors in the Jewish sample. Both children of survivors and grandchildren of survivors reported higher scores on the intrusion subscale of PTSD than those who were not descendants of survivors. This finding is consistent with those of McCarroll, Blank, and Hill (1995) who found evidence of secondary PTSD in individuals who worked with Holocaust-related material. The higher intrusion scores are also consistent with reports of Kellerman (2001a) and Bergmann and Jucovy (1982) that children of survivors have Holocaust-related dreams. Dreams and other sleep disturbances characterise 'intrusion' so it would seem that the current sample are not dissimilar to other children of survivors in other parts of the world.

A particular point of contention revealed from these findings relates to the idea that, at least for individuals associated with the Holocaust, symptoms of post-traumatic stress can be expressed without actually having experiencing the event

itself. This finding actually contradicts the exact definition of PTSD, which, according to the DSM-IV (APA, 1994) specifies that a sufferer must have a 'direct personal experience of an event'. The current study findings reinforce the idea of Krysinska and Lester (2006) that secondary trauma can be acquired through contact with a person who experienced trauma.

Furthermore, the current study confirmed that descendants of survivors were actually expressing characteristics of PTSD, as opposed to general stress. Children and grandchildren reported no differences in their scores for general stress and anxiety; differences were found only for stress related to the Holocaust.

The fact that there were no significant differences found in relation to the avoidance subscale may likely reflect the idea that descendants of survivors do not wish to consciously avoid thinking about the Holocaust. Although unpleasant, descendants of survivors may feel an obligation to think and feel and remember the Holocaust, so as to keep alive the memory of those who perished, and to ensure that an event like it is never repeated. Particularly, as survivors age and pass on, their children and grandchildren may feel it is all the more their duty to carry on the legacy of their loved ones.

When the PTSD variables were included in a model to predict HPMood via Personality, the model did not provide a great fit to the data. However, the avoidance subscale of PTSD did significantly predict Neuroticism, which in turn predicted Affect. It had been predicted that intrusion would affect Neuroticism, though it is feasible that constant attempts to keep particular behaviours and feelings to do with the Holocaust out of one's mind could increase anxiety and the development of a neurotic disposition.

Overall, it appears that the direct transmission of trauma, expressed as the secondary acquisition of symptoms of post-traumatic stress disorder, may indeed be one mode through which trauma can be passed down from generation to generation. However, on its own, the acquisition of secondary PTSD is not sufficient to explain the lowered affect in descendants of survivors.

Findings relating to Compliance

The subscales of Compliance did not factor out as cleanly as they did in the Schwartz et al. (1994) study. Instead, a scale representing 'Compulsive

Organisation' emerged, which was moderately correlated to both Neuroticism and Conscientiousness. Similar in theory to the original 'rigidity' construct, Compulsive Organisation reflected an attention to time and routine. It was thought that children of survivors would score higher on this subscale than non-survivors, though this was not the case. The difference between the two means appeared to be approaching significance, but did not quite get there. Higher scores for Compulsive Organisation was, however, a characteristic of grandchildren of survivors who had all 4 grandparents who survived the Holocaust, at least compared to non-descendants of survivors. Perhaps Compulsive Organisation may emerge as a particular issue for grandchildren of survivors who have been parented by mothers and fathers expressing higher Neuroticism and lower HPMood than the general Australian sample. So, it appears that there is an impact of the Holocaust on both the second and the third generation, although the impact is not expressed in the same way.

The other subscale that emerged from the factor analysis of the Compliance scale was the 'Striving' subscale, representing a tendency to pursue goals with the idea that only the best will do. This scale was closely related in theory to the "Education Oriented" subscale in the Schwartz et al. (1994) study, although no differences were found among descendants of survivors and non-descendants of survivors. It is perhaps the case that the strive to achieve academically and professionally is more a trait relating to an immigrant or cultural effect that is not the result of Holocaust experience.

Overall, the exploratory analyses revealed that both direct transmission (in the form of PTSD) and indirect transmission (in the form of Attachment) may play a part in the trauma acquired in descendants of survivors. However, it appears that, at least for the sample in this study, indirect transmission provided a better explanation for the lowered Affect in descendants of survivors.

Summary and introduction to Study 3

Findings from Study 2 confirm that there remain effects for children and grandchildren of Holocaust survivors still today, more than 65 years since the end of the war. Although the effects in each generation appear to be expressed differently, both second and third generation participants reported higher

symptoms of PTSD related to the Holocaust than non-descendants of survivors. However, the higher rate of PTSD cannot, on its own, account for the lower HPMood in descendants of survivors. Rather, the bonding relationship with one's Mother appears to better predict a child's personality and affect. This finding represents a new layer to the Homeostatic model, which can so far only be said to apply to the current sample of individuals who have been exposed to trauma, or been brought up by individuals who have suffered trauma. Study 3 will attempt to consolidate the role of Mother Care in the Homeostatic model, by attempting to fit the model created in Study 2 to a general Australian sample. Further, the other cognitive buffers not included in Study 2 will be added to the model, and the direct link between Mother Care and SWB will be put to the test.

CHAPTER 11: INTRODUCTION TO STUDY 3

The relationship between Mother Care and Control and SWB

The influence of one's perceived relationship with their Mother emerged as a key element to the prediction of SWB in Study 2. Not only did Mother Care and Control provide the best explanation for why HPMood was lower in descendants of survivors, but these variables were shown to be important in the prediction of SWB, particularly Mother Care. Certainly, secure attachment, characterised by high levels of Care and moderate levels of Control, has been recognised as a forerunner to psychological wellbeing and adjustment (Bowlby, 1982; Kobak & Sceery, 1988; Kenny & Sirin, 2006). However, the direct pathway between Mother Care and SWB which is evident in the final model created in Study 2, and the emergence of Mother Care as a unique predictor of SWB over and above HPMood and Self-Esteem, together suggest that Mother Care has an influence that goes beyond what can be attributed to Personality, Affect, or feelings of self-worth. Thus, the role of Mothering in relation to the Homeostatic model warrants further exploration.

Although the pathway from Mother Care to SWB appears valid, Study 2 considered a sample whose HPMood was compromised. The argument was made that, as a result of their traumatic family history, the set-point of descendants of survivors was perhaps lower to begin with. In addition, the sample comprised children and grandchildren of individuals who may have been diminished in their capacity to emotionally connect with their offspring as they continued to struggle to overcome their own traumatic experiences (Schwartz, Dohrenwend, & Levav, 1994; Weiss & Weiss, 2000). Children of Holocaust survivors in the Study 2 sample reported lower Mother Care and higher Mother Control than their non-survivor counterparts, reinforcing this notion. Thus, the impact of Mother Care and Control on SWB may be exaggerated for this sample. It may be the case that because of their lower set-point, the effect of having received optimal Mothering is more crucial to their general SWB. Study 3 aims to clarify whether the function of Mothering in relation to SWB is as critically important in a general sample of Australians, who have not been exposed to the trauma of the Holocaust.

The literature cited above suggests that Mothering should have an influence on SWB. It is, however, difficult to find literature which considers this influence without highlighting mediating pathways through self-esteem, neuroticism, or other variables already considered in the homeostatic model. In the current study, the final model created for Study 2 will be applied to the general Australian population, to determine whether Mothering is of particular importance to those with compromised HPMood. In addition, Mothering is assumed to influence SWB by providing individuals with the skills and confidence to cope with adversity later in life (e.g. Kenny & Sirin, 2006). It is therefore possible that Mothering may serve as a 'buffer' to SWB, functioning similarly to Self-Esteem, Optimism, and Control in the Homeostatic model. Study 3 will therefore also explore whether a model which incorporates Mothering in the prediction of SWB fits the data better than a model which expresses the Homeostatic model as it is currently understood. In doing so, a new element to the homeostatic model may be identified.

Hypotheses for Study 3

It is hypothesised that Mother Care will emerge as a significant unique contributor to SWB for the general Australian sample. It is also hypothesised that the model created in Study 2 will fit the data from this sample. Lastly, it is hypothesised that a model of SWB incorporating Mother Care and Control will fit the data better than one which represents the Homeostatic model as it currently stands.

CHAPTER 12: METHOD FOR STUDY 3

Participants

The sample for Study 3 was drawn from the 20th survey of the Australian Unity Longitudinal Wellbeing Index, conducted in July 2010. Individuals were invited to participate who had participated in previous surveys of the Index and had indicated their consent to receive future surveys. A total of 2822 surveys were mailed out, with over 54% returned. A total of 1477 participants comprised the sample for Study 3, comprising 46% males and 54% females. The sample ranged in age from 18-96 with a mean of 60.80 and standard deviation of 13.80. It is, thus, an elderly sample.

Materials

The questionnaire for Survey 20 consisted of the Personal Wellbeing Index (IWBG, 2006), the Affect Scale used for Study 2, the Parental Bonding Index (Parker, Tupling, & Brown, 1979) to measure Mother Attachment, and the Ten Item Personality Inventory (Gosling, Rentfrow, & Swan, 2003) to measure Personality. In addition, the cognitive buffers were assessed using the Rosenberg Self Esteem Scale (Rosenberg, 1965) to measure Self Esteem, the Life Orientation Test-Revised (Scheier, Carver, & Bridges, 1994) to measure Optimism, and the Personal Perceived Control Scale (Holloway, 2003) to measure Primary and Secondary Control.

Procedure

Approval was sought from Deakin University Human Research Ethics Committee to undertake the study. Participants who had previously noted their intention to participate in future studies of the Australian Unity Wellbeing Index were mailed a package which included a cover letter, a Plain Language Statement, and the Survey 20 questionnaire. Once they completed their questionnaire, respondents enclosed it in a reply-paid envelope provided to them and returned it to Deakin University. It was then sent to an external marketing company for data entry.

CHAPTER 13: RESULTS FOR STUDY 3

Data Preparation and Assumptions

Data were screened through SPSS 17.0. Cases with missing values were retained in the dataset, unless they recorded missing data for more than 3 variables, in which case they were removed. Ten cases met these criteria (IDs: 1540, 908, 1427, 78, 508, 207, 248, 772, 167, 951). Sixteen cases (IDs: 176, 268, 434, 1053, 199, 293, 301, 404, 453, 1027, 124, 720, 1097, 144, 1129, 1492) recorded the highest possible score for the PWI, and following guidelines from the PWI Manual (IWBG, 2006) these cases were also removed as they were indicative of an acquiescent response style.

Tests of normality were conducted for each scale. All scales violated the assumption of normality however, as for Studies 1 and 2, assumptions about normality were relaxed for subsequent analyses as these variables are acknowledged to be subject to skew (Cummins, 1995; 1998).

A total of 196 univariate outliers were identified in the dataset as being 3 *z*-scores below the mean. Outlying scores were recoded to within the accepted range of scores, following recommendation from Tabachnik and Fidell (2007). Thirty-nine multivariate outliers were identified by the criterion of Mahalanobis distance at a significance level of .001 (df = 16) with a chi-square value of 39.252. Independent sample t-tests showed that there were significant differences on most of the variables measured when the multivariate outliers were included as compared to when they were not. Since the sample for this study was quite large, multivariate outliers were simply removed from the dataset. The clean dataset consisted of 1477 cases.

All scores (other than demographic items) were converted to percentages of Scale Maximum scores (%SM). As each item was assessed on an 11-point scale from 0-10, all scores were simply multiplied by 10 to convert them to lie within a 0-100 range.

FACTOR ANALYSES

As was done for the two previous studies, factor analyses were performed for each scale. Suitability for factor analyses was confirmed with each scale recording KMO values above .7 and significant Bartlett's test of sphericity. The factors for the PWI, Affect Scale, RSES, and LOT-R scales emerged as expected. For the PBI, the item "My mother gave me as much freedom as I wanted" loaded weakly onto both factors. To maintain consistency with previous research, this item was retained with the factor representing "Control". For the DASS, the Stress and Anxiety subscales emerged as expected, however one item belonging to the Stress scale, "I felt that I was using a lot of nervous energy", loaded onto the Anxiety scale. Since the manual for the DASS (Lovibond & Lovibond, 1995) acknowledges that the two scales share overlap, particularly for items relating to nervous tension or nervous energy, this item was retained with the Anxiety Scale. For the PPCS, two factors emerged, however two items which usually belong to the Primary Control scale also loaded onto the Secondary Control scale. One item, "I look for different ways to improve the situation" loaded more strongly on the Primary Control factor, so it was retained there, consistent with the original design of the scale. Another item, "I use my skills to overcome the problem", loaded weakly onto both factors, although loaded higher on the Secondary Control scale. For the purposes of the current study, Primary and Secondary Control will only be used in the final path analysis, in the context of the homeostatic model. Thus, the original factor structure will be applied to the current data. However, future studies using this scale should closely monitor the factor structure. For the TIPI, the factor structure emerged as expected, except that the item "I see myself as enthusiastic" loaded weakly onto both the Neuroticism and Extraversion factors. Since it loaded negatively on the Neuroticism factor, and positively on the Extraversion factor where conceptually, it should belong, the original factor structure was retained.

Table 89 shows the correlations between all measured variables.

Descriptive Statistics

Table 89:

Correlations between all measured variables in Study 3

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. PWI														
2. HPMood	.79													
3. Positive Affect	.77	.93												
4. Negative Affect	-.40	-.46	-.42											
5. Mother Care	.20	.21	.19	-.16										
6. Mother Control	-.17	-.19	-.18	.18	-.50									
7. DASS Stress	-.42	-.52	-.47	.43	-.19	.28								
8. DASS Anxiety	-.44	-.47	-.45	.42	-.20	.29	.69							
9. DASS Depression	-.60	-.67	-.65	.54	-.23	.23	.72	.71						
10. Primary Control	.33	.32	.33	-.22	.14	-.10	-.13	-.20	-.28					
11. Secondary Control	.34	.39	.40	-.20	.11	-.11	-.21	-.19	-.31	.53				
12. Self Esteem	.62	.69	.69	-.38	.19	-.17	-.44	-.46	-.61	.39	.47			
13. Optimism	.56	.61	.60	-.37	.19	-.19	-.42	-.38	-.54	.37	.50	.66		
14. Neuroticism	-.43	-.52	-.48	.38	-.18	.24	.58	.50	.54	-.19	-.29	-.52	-.51	
15. Extraversion	.19	.23	.26	-.29	.07	-.03	-.14	-.14	-.26	.20	.19	.29	.29	-.16

**Note: all correlations in this table are significant at the .05 level, except for the correlation between Mother Control and Extraversion.*

Table 89 once again confirms the high correlations between the variables in the homeostatic model. As in Study 2, HPMood and Positive Affect correlate very highly and are co-linear, as these variables are comprised of almost the same items. Notably, Mother Care had a correlation of .20 with the PWI for the current study; for Study 2 that same correlation was much stronger at .40.

A profile of the Study 3 sample is provided in Table 90, which shows the frequencies of participants in each demographic group.

Table 90:

Frequencies of demographic characteristics for Study 3 data

Demographic variable	N	%N
Gender		
Male	640	43.3%
Female	754	51.0%
Total	1394	94.4%
Age group		
18-25	19	1.3%
26-35	38	2.6%
36-45	151	10.2%
46-55	248	16.8%
56-65	391	26.5%
66-75	348	23.6%
76+	195	13.2%
Total	1390	94.1%
Income		
Less than $15,000	79	5.3%
$15,000 - $30,000	327	22.1%
$31,000 - $60,000	373	25.3%
$61,000 - $100,000	296	20.0%
$101,000 - $150,000	164	11.1%
$151,000 - $250,000	75	5.1%
$251,000 - $500,000	24	1.6%
More than $500,000	2	.1%
Total	1340	90.7%
Marital status		
Never married	140	9.5%
De facto or living together	30	2.0%
Married	873	59.1%
Separated but not divorced	133	9.0%

Demographic variable	N	%N
Divorced	65	4.4%
Widowed	151	10.2%
Total	1392	94.2%
Household structure		
Live alone	502	34.0%
Live with partner	606	41.0%
Live with partner and children	308	20.9%
Live with parents	23	1.6%
Live with other adults	38	2.6%
Total	1477	100.0%

Comparing the demographic variables between this sample and the sample recruited for Study 2 reveals that the current sample have a lower average income, but have a more even gender split. Due to the older age of the current sample (Mean age = 60.80, SD = 13.80), it also contained more widows, and proportionally fewer never married participants. Table 91 shows the descriptive statistics, including reliability measures for each scale, for the current sample.

Table 91:

Means and standard deviations for all measured variables

Variable (no. of items)	N	Mean	SD	Cronbach's alpha
Life as a Whole (1)	1473	75.95	16.41	
PWI (7)	1437	74.36	13.77	.87
HPMood (3)	1473	75.27	14.18	.88
Positive Affect (5)	1465	70.12	13.03	.83
Negative Affect (4)	1442	39.95	15.19	.64
Mother Care (6)	1420	68.14	20.38	.85
Mother Control (6)	1430	30.22	19.39	.81
DASS – Stress (6)	1449	26.37	21.17	.89
DASS – Anxiety (8)	1461	14.12	15.99	.86
DASS – Depression (7)	1459	19.25	20.42	.93
Primary Control (3)	1473	71.01	16.02	.69
Secondary Control (3)	1475	75.72	16.06	.80
Self Esteem (5)	1476	78.31	14.49	.93
Optimism (3)	1476	70.37	18.27	.88
Neuroticism (4)	1472	31.81	18.08	.73
Extraversion (4)	1448	51.65	20.06	.75

Reliabilities for each scale are acceptable for a research study, with all reliabilities above .60. The low Cronbach's alpha for Negative Affect at .64 is somewhat lower than what would be expected, although will not affect future analyses as this variable was only included for comparative purposes with the Study 2 sample. Table 91 compares the means on each variable common between Studies 2 and 3.

Table 92:

Comparing the Study 3 sample to the Study 2 sample (descendants of survivors only) on major variables of interest

	Study 3 sample			Descendants of survivors			
	N	Mean	SD	N	Mean	SD	ANOVA
Life as a Whole	1473	75.95	16.41	146	74.02	18.72	F(1, 1617) = 1.778, p=.183
PWI	1437	74.36	13.77	144	75.85	14.41	F(1, 1579) = 1.531, p=.216
HPMood	1473	75.27	14.18	144	71.32	17.04	**F(1, 1615) = 9.809, p=.002**
Positive Affect	1465	70.12	13.03	142	69.32	16.11	F(1, 1605) = .466, p=.495
Negative Affect	1442	39.95	15.19	143	39.51	19.24	F(1, 1583) = .105, p=.745
Mother Care	1420	68.14	20.38	141	68.23	24.77	F(1, 1559) = .002, p=.961
Mother Control	1430	30.22	19.39	144	40.94	23.72	**F(1, 1572) = 38.205, p=.000**
DASS – Stress	1453	26.37	21.17	139	32.44	23.68	**F(1, 1590) = 10.205, p=.001**
DASS – Anxiety	1457	14.12	15.99	142	15.11	19.37	F(1, 1597) = .481, p=.488
Self Esteem	1476	78.31	14.49	145	79.84	19.17	F(1, 1619) = 1.378, p=.241
Neuroticism	1472	31.81	18.08	143	45.65	19.20	**F(1, 1613) = 75.519, p=.000**
Extraversion	1448	51.65	20.06	146	55.50	24.46	**F(1, 1592) = 4.688, p=.031**

Compared to descendants of survivors, the general Australian sample recruited for Study 3 has higher HPMood. They also report significantly lower Mother Control and general Stress. Further, it is interesting to note that the general Australian sample report lower scores for both Neuroticism and Extraversion.

To specifically explore the domains of the PWI across the two samples, they were compared and results shown in Table 93.

Table 93:

Domains of the Personal Wellbeing Index (comparisons between Study 2 and Study 3)

	Study 3 *(N=1477)*		Descendants of survivors *(N=146)*		
Domain	Mean	SD	Mean	SD	ANOVA
Standard of Living	78.05	16.06	81.71	16.08	**F(1, 1619) = 6.892, p=.009**
Health	70.90	18.80	73.24	22.23	F(1, 1616) = 1.985, p=.159
Achieving in Life	70.07	19.24	71.70	20.34	F(1, 1613) = .932, p=.335
Personal Relationships	77.18	19.78	73.97	21.32	F(1, 1619) = 3.444, p=.064
Personal Safety	79.84	17.07	80.55	18.92	F(1, 1616) = .222, p=.637
Feeling Part of the Community	71.88	19.09	75.56	19.20	**F(1, 1616) = 4.956, p=.026**
Future Security	72.58	19.60	74.34	20.84	F(1, 1599) = 1.062, p=.303
Spirituality or Religion	73.49	20.21	72.81	19.61	F(1, 1146) = .147, p=.701

The general Australian sample report lower Satisfaction with Standard of Living and lower Community Satisfaction than the descendants of survivors in Study 2.

Having compared the two studies in terms of their demographic characteristics and their scores on the major variables, some regression analyses were then performed.

REGRESSIONS

To explore the nature of the PWI for the current sample, all domains were regressed onto Life as a Whole, as was done for Studies 1 and 2.

Table 94:

Contributions of the Personal Wellbeing domains to Life as a Whole for Study 3

Predictor	r[a]	Beta[b]	sr[2c]	t
DV: Life as *a Whole*				
Standard of Living	.67	.29	.05	11.685***
Health	.51	.08	.00	3.514***
Achieving	.72	.34	.05	12.402***
Personal Relationships	.62	.22	.03	9.538***
Personal Safety	.45	.02	.00	.821

Predictor	r[a]	Beta[b]	sr[2c]	t
Community	.51	.03	.00	1.007
Future Security	.55	.00	.00	.130
Spirituality or Religion	.40	.07	.00	3.567***
Total explained unique variance			.13	
Total explained shared variance			.54	
	R^2 = .67		Adjusted R^2 = .67	

*Note: N = 991. [a] Zero-order correlation between domain and Life as a Whole. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

The overall equation to predict Life as a Whole was significant; R^2 = .67, F(8, 983) = 246.574, p = .000. The domains of Standard of Living, Health, Achievements, Relationships and Spirituality/Religion were significant unique contributors to Life as a Whole. There was a larger than usual amount of shared variance in this model, which can likely account for why Personal Safety, Community, and Future Security failed to contribute unique variance.

To explore the main aim of the present study, that is, whether the independent contribution of Mother Care to SWB is significant for the general Australian population, the variables already implicated in the Homeostatic model were entered into a hierarchical regression model, and Mother Care and Mother Control were entered in a subsequent step. The results of this analysis are shown in Table 95.

Table 95:

Predicting SWB from HPMood, the cognitive buffers, and Mother Care.

Predictor	r[a]	Beta[b]	sr[2c]	T
DV: SWB				
Block 1				
HPMood	.79	.79	.63	48.517***
	R^2 = .63		Adjusted R^2 = .63	
Block 2				
HPMood	.79	.68	.22	29.339***
Self Esteem	.62	.08	.00	3.336**
Primary Control	.33	.06	.00	3.336**
Secondary Control	.34	-.04	.00	-1.801
Optimism	.56	.09	.00	3.774***
	R^2 = .65		Adjusted R^2 = .65	

Predictor	r[a]	Beta[b]	sr[2c]	T
Block 3				
HPMood	.79	.68	.22	29.089***
Self Esteem	.62	.08	.00	3.301**
Primary Control	.33	.06	.00	3.253**
Secondary Control	.34	-.04	.00	-1.768
Optimism	.56	.09	.00	3.679***
Mother Care	.20	.02	.00	.932
Mother Control	-.17	-.01	.00	-.249
Total explained unique variance (final model)			.22	
Total explained shared variance (final model)			.43	
	R^2 = .65		Adjusted R^2 = .65	

*Note: N = 1380. [a] Zero-order correlation between variable and SWB. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

The overall equation to predict SWB was significant, R^2 = .65, F(7, 930) = 250.150, p = .000.

HPMood was entered in Block 1, explaining 63% of the variance in SWB. The cognitive buffers, Self Esteem, Primary Control, Secondary Control, and Optimism were entered in Block 2 and accounted for an additional 1.6% of variance, R^2 change = .016, F change (4, 1375) = 15.366, p = .000. Mother Care and Mother Control were entered in Block 3, and did not significantly add to the model, R^2 change = .000, F change (2, 1371) = .749, p = .473. Overall, the model explained 65% of variance in SWB. HPMood, Self-Esteem, Primary Control, and Optimism emerged as significant unique predictors of SWB.

The analyses above reveal that for the general Australian sample, Mother Care does not uniquely predict SWB. However, since the influence of Mother Care and Mother Control on SWB was originally perceived to be indirect, these variables were entered into regression analyses to predict HPMood and the Personality variables.

Table 96:

Predicting HPMood from the cognitive buffers and Mother variables

Predictor	r[a]	Beta[b]	sr[2c]	t
DV: HPMood				
Self Esteem	.69	.50	.13	19.388***
Primary Control	.32	.01	.00	.548
Secondary Control	.39	.02	.00	.628
Optimism	.61	.25	.03	9.751***
Mother Care	.21	.04	.00	2.030*
Mother Control	-.19	-.03	.00	-1.575
Total explained unique variance			.16	
Total explained shared variance			.36	
	R^2 = .52		Adjusted R^2 = .52	

*Note: N = 1399. [a] Zero-order correlation between variable and HPMood. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

The overall equation to predict HPMood was significant, R^2 = .52, F(6, 1393) = 253.602, p = .000. Self-Esteem, Optimism, and Mother Care emerged as significant unique predictors. So, although Mother Care did not directly predict SWB for this sample, as it did for the families of Holocaust survivors in Study 2, an indirect path via HPMood seems plausible. To explore whether an indirect pathway also exists through the Personality variables, the regression analysis above was repeated, although this time Neuroticism and Extraversion were predicted.

Table 97:

Predicting Personality from the cognitive buffers and Mother variables

Predictor	r[a]	Beta[b]	sr[2c]	t
DV: Neuroticism				
Self Esteem	-.52	-.33	.06	-10.930***
Primary Control	-.19	.07	.00	2.572*
Secondary Control	-.29	-.01	.00	-.367
Optimism	-.51	-.28	.04	-9.330***
Mother Care	-.18	-.01	.00	-.188
Mother Control	.24	.13	.01	5.253***
Total explained unique variance			.11	
Total explained shared variance			.23	

Predictor	r[a]	Beta[b]	sr[2c]	t
	R^2 = .34		Adjusted R^2 = .34	
DV: Extraversion				
Self Esteem	.29	.15	.01	4.358***
Primary Control	.20	.09	.01	2.892**
Secondary Control	.19	-.01	.00	-.238
Optimism	.29	.16	.01	4.482***
Mother Care	.07	.02	.00	.743
Mother Control	-.03	.04	.00	1.499
Total explained unique variance			.03	
Total explained shared variance			.08	
	R^2 = .11		Adjusted R^2 = .10	

*Note: N = 1392. [a] Zero-order correlation between variable and Neuroticism or Extraversion. [b] Standardised regression coefficient. [c] Unique variance contributed to prediction of the dependent variable. *P < .05. **P < .01. ***P < .001.*

The overall equation to predict Neuroticism was significant, R^2 = .34, F(6, 1393) = 118.973, p = .000. Self Esteem, Primary Control, Optimism, and Mother Control were significant unique predictors. The overall equation to predict Extraversion was significant, R^2 = .11, F(6, 1386) = 27.384, p = .000. Significant unique predictors of Extraversion included Self Esteem, Primary Control and Optimism.

Thus, although Mother Care did not predict Extraversion, Mother Control significantly predicted Neuroticism.

Following these regression analyses, some path analyses were conducted. Firstly, the best fitting model from the Study 2 sample was repeated for the sample for Study 3 to see whether it remained a good fit for the data, and could explain the way Mother Care and Control influence SWB.

PATH ANALYSES:

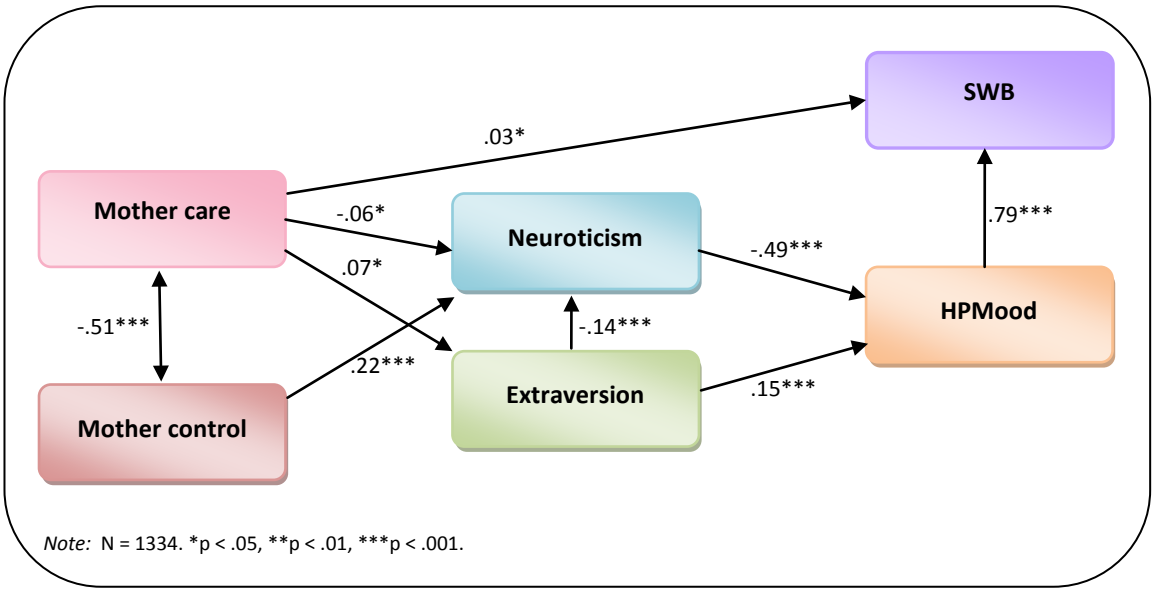

Figure 20: Explaining the way Mother Attachment influences SWB for Study 3 sample.

Table 98 shows the fit indices for the model shown in Figure 20.

Table 98:

Fit indices for Mother Attachment model to SWB for Study 3 sample

Mother Attachment to SWB									
X^2	P	Df	X^2/df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
27.000	.000	6	4.505	.051	.0349	.991	.977	69.031	149.970

The fit indices for the model in Figure 20 indicate that it is a fairly good fitting model. It has a comparatively low chi-square value which is statistically significant. However, since chi-square is acknowledged to be highly sensitive to larger sample size, the fit-indices provide a better evaluation of the model fit. The RMSEA and SRMR values in the model are approaching 0, and the CFI and TLI values are close to 1. Finally, the model has reasonably low AIC and CAIC values, indicating parsimony. Table 99 shows the estimates for the pathways in Figure 20.

Table 99:

Estimates showing significant pathways (Mother Attachment to SWB model for Study 3 sample)

Pathway			B-weight	Standard Error	t-test	P
Extraversion	←	Mother Care	.066	.027	2.449	.014
Neuroticism	←	Mother Control	.206	.028	7.281	***
Neuroticism	←	Extraversion	-.126	.024	-5.342	***
Neuroticism	←	Mother Care	-.053	.027	-1.970	.049
HPMood	←	Neuroticism	-.383	.018	-21.063	***
HPMood	←	Extraversion	.107	.016	6.534	***
SWB	←	HPMood	.766	.016	46.724	***
SWB	←	Mother Care	.023	.011	2.063	.039

*Note: *** indicates p = .000.*

Table 99 shows that all pathways in the model were significant, albeit some only just. In the original model for families of Holocaust survivors, the pathway from Mother Care to Neuroticism was non-significant, whilst for the current sample it is just significant at the .05 level.

To explore whether the homeostatic model can be improved by including Mother Care in the prediction of wellbeing, two models were compared. The first model traces the cognitive buffers through HPMood to SWB. The second model includes Mother Care, since this variable emerged as a significant unique contributor to HPMood in the regression analyses performed earlier.

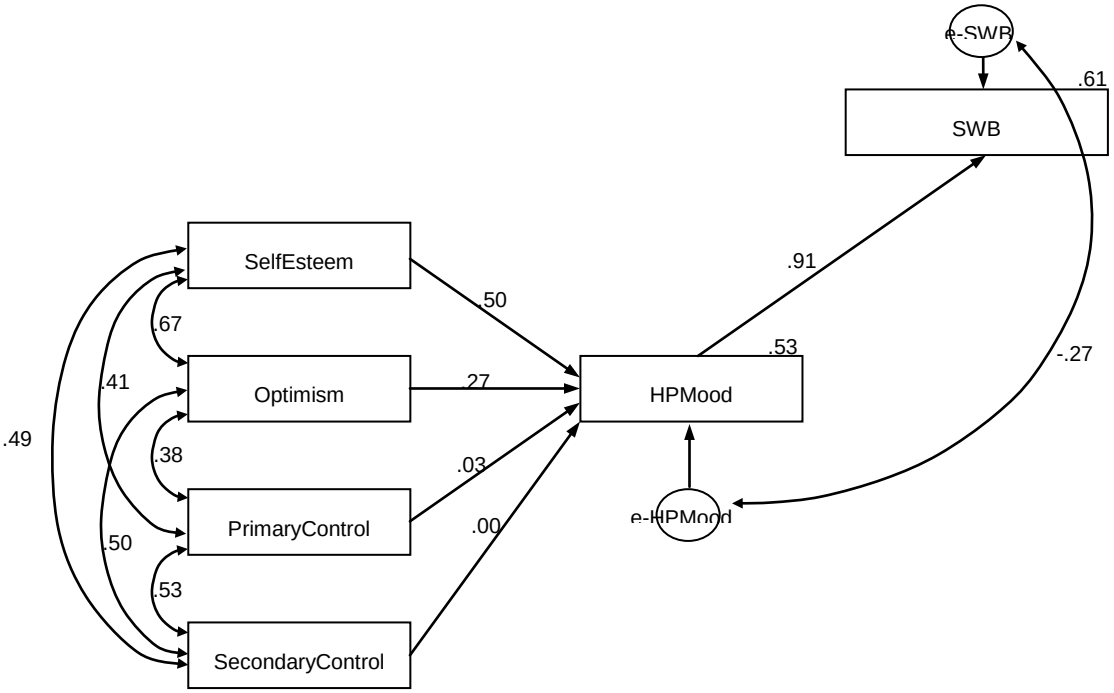

Figure 21: Modelling the pathway from the cognitive buffers through HPMood to SWB

Note: Originally, the model was conceived without the pathway connecting the error terms for SWB and HPMood; however this pathway was included as the Modification Indices provided by AMOS suggested that doing so would greatly improve the model fit.

Table 100 shows the fit indices for the model shown in Figure 21.

Table 100:

Fit indices for Homeostatic model including cognitive buffers

Homeostatic model									
X^2	P	Df	X^2/df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
7.684	.053	3	2.561	.034	.0059	.999	.994	43.684	155.143

The fit indices for the model in Figure 21 indicate that it is a fairly good fitting model. It has a comparatively low chi-square value which is not statistically significant. The RMSEA and SRMR values in the model approach 0, and the CFI and TLI values are very close to 1. Table 101 shows the estimates for the pathways in Figure 21.

Table 101:

Estimates showing significant pathways (Homeostatic model including cognitive buffers)

Pathway			B-weight	Standard Error	t-test	P
HPMood	←	Self-Esteem	.209	.019	10.748	***
HPMood	←	Optimism	.487	.025	19.439	***
HPMood	←	Primary Control	.031	.019	1.567	.117
HPMood	←	Secondary Control	-.002	.021	-.108	.914
SWB	←	HPMood	.883	.023	38.603	***

Note: *** indicates p = .000.

Table 101 shows that the pathways from Primary and Secondary Control to HPMood were not significant, even though the model fit the data well.

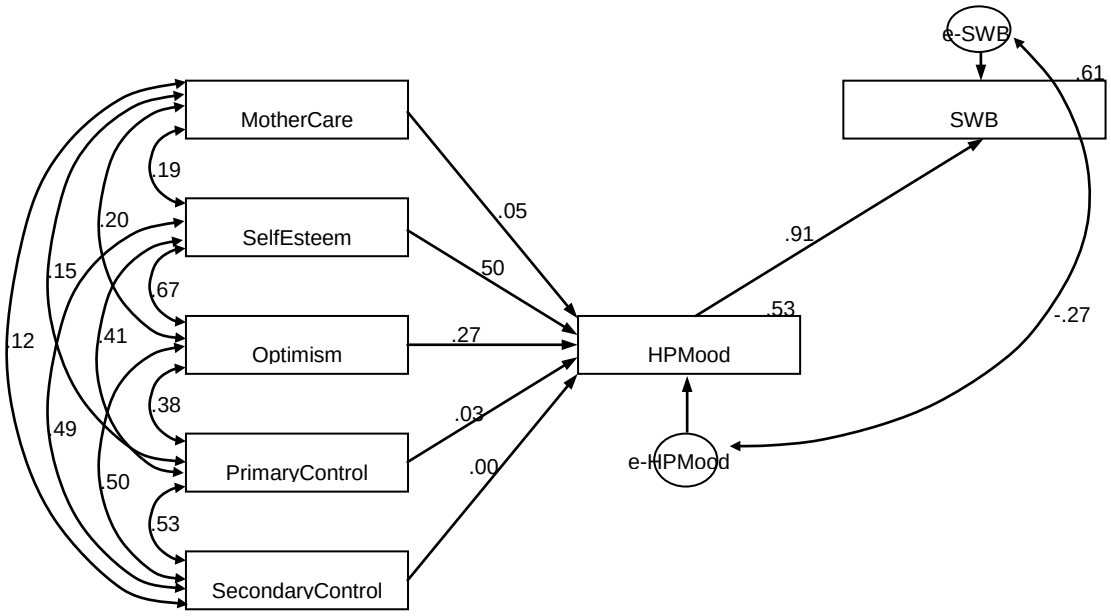

Figure 22: Modelling the pathway from the cognitive buffers (including Mother Care) through HPMood to SWB.

Table 102 shows the fit indices for the model shown in Figure 22.

Table 102:

Fit indices for Homeostatic model including Mother Care

Homeostatic model									
X^2	P	Df	X^2 /df	RMSEA	SRMR	CFI	TLI	AIC	CAIC
7.863	.097	4	1.97	.027	.0053	.999	.995	55.863	204.475

The fit indices for the model in Figure 22 indicate that it is also a very good fitting model. It has a low chi-square value which is not statistically significant. The RMSEA and SRMR values in the model approach 0, and the CFI and TLI values are very close to 1. Table 103 shows the estimates for the pathways in Figure 22.

Table 103:

Estimates showing significant pathways (Homeostatic model including Mother Care)

Pathway			B-weight	Standard Error	t-test	P
HPMood	←	Mother Care	.036	.013	2.824	.005
HPMood	←	Self-Esteem	.482	.025	19.245	***
HPMood	←	Optimism	.204	.019	10.506	***
HPMood	←	Primary Control	.027	.019	1.374	.169
HPMood	←	Secondary Control	-.001	.021	-.032	.975
SWB	←	HPMood	.884	.023	38.712	***

*Note: *** indicates p = .000.*

Table 103 shows that the pathways from Primary Control and Secondary Control to HPMood were not-significant, as for Figure 21 previously. However, the pathway from Mother Care to HPMood was significant. A comparison of the fit indices between the two models suggests that, whilst both fit the data well, the model which includes Mother Care has lower RMSEA and SRMR, and higher TLI. It could therefore be argued that the model which includes Mother Care provides a better fit to this data. Further, the significant pathway between Mother Care and HPMood further highlights the importance of Mother Care to the prediction and understanding of SWB.

In summary, this study has shown some support for the role of Mothering in the homeostatic model. The model created in Study 2 to explain how Mother Care and Control influence SWB via Personality and HPMood fit the current sample data well. Further, the direct relationship between Mother Care and SWB emerged as significant. Subsequent analyses to afford Mother Care a role in the homeostatic model suggested that including this variable may provide a better fit than a model which includes only the currently acknowledged cognitive buffers of Self Esteem, Optimism, and Control.

CHAPTER 14: DISCUSSION FOR STUDY 3

The aim of the third study was to explore the role of Mothering in the homeostatic model for a general Australian sample. Whilst Mother Care emerged as a significant unique contributor to SWB in Study 2, participants in that sample were experiencing a compromised level of HPMood. Thus, Study 3 aimed to consider the impact of Mothering on SWB in a sample that had not been exposed to systematic trauma.

Preliminary correlations between Mother Care and SWB in Study 3 revealed a much weaker relationship between these two variables than was evident in Study 2. Consequently, and contrary to the first hypothesis, Mother Care did not emerge as a significant unique contributor to SWB for the general Australian sample. In this analysis, Mother Care was entered to predict SWB in a hierarchical regression following the entry of HPMood and the cognitive buffers of Self Esteem, Control, and Optimism. Thus, it is apparent that the effect of Mother Care on SWB was consumed by the variables already in the homeostatic model.

Subsequently it was found that Mother Care has an indirect effect on SWB in the general population, via HPMood. While these findings contrast with those of Study 2, they are consistent with studies which suggest a relationship between attachment styles and affect. For example, Van Buren and Cooley (2002) suggest that attachment styles and negative affectivity mutually influence one another. The current finding implies that the direction of relationship goes from attachment styles, to affectivity. Further, the idea that HPMood mediates the relationship between Mother Care and SWB enforces the notion that HPMood is the primary driver of SWB (Cummins, 2010).

In conclusion, the results of this study suggest that Mother Care does not directly predict SWB in the general population, but rather influences HPMood which in turn influences SWB. The current study builds on the idea that attachment is, by nature, affective, and that parental behaviours can influence a child's emotional functioning in adulthood (Parker et al., 1997).

The second hypothesis, that the model created in Study 2 would fit the data from the general Australian sample, was supported. This model shows that Mothering (in terms of Care and Control) influences HPMood via its influence on the Personality factors of Neuroticism and Extraversion. These findings validate the theoretical proposition that the amount of Care received from one's mother predicts both Extraversion and Neuroticism (Thomas, 2004). In line with this view, it appears that when a child is the recipient of high care, they tend to view other relationships favourably, and are therefore more likely to want to engage with people in the future (Kenny & Sirin, 2006). They thus develop a more extraverted personality style. Low care, on the other hand, results in an association between interpersonal relationships and anxiety (Thomas, 2004), thus discouraging the child from forming new relationships, and leading to a more introverted personality style. Further, and in terms of control, the current study confirms that high levels of control may lead to the development of a neurotic disposition, perhaps because the child is taught to believe that the world is a dangerous place from which they require protection (Thomas, 2004).

The model also confirms the relationship between Personality and Affect proposed by Costa and McCrae (1980). These authors proposed that Extraversion predisposes people to positive affect whereas Neuroticism predisposes people to negative affect. The current model did not include negative affect as no differences between groups were revealed for this variable in Study 2. However, the current model did reveal that Neuroticism has a negative association with HPMood, or positive affect. That is, an increase in Neuroticism is associated with a decrease in positive affect. The moderate correlation identified between positive and negative affect in this study ($r = -.41$) implies that a decrease in positive affect to some extent implies an increase in negative affect. Therefore, the findings of the current study can be said to support the idea that Neuroticism is related to negative affect. This model also shows that HPMood in turn drives SWB, consistent with Homeostatic theory (Cummins, 2010).

The final hypothesis, that the inclusion of Mother Care in the homeostatic model would improve model fit, was supported. While both models, with and without Mother Care, proved to be good fits to the data, on some fit indices the model including Mother Care was superior. This finding supports the idea that

Mother Care may have a place in the homeostatic model. Considering that in Study 2 Mother Care predicted SWB for a sample with compromised HPMood, there is support for the idea that the role played by Mother Care is akin to that of a buffer variable. A buffer variable within the homeostatic model is one which serves to maintain SWB when threats to it exist. Thus, the fact that Mother Care has only indirect relevance generally, but becomes a significant unique contributor to SWB when the system is compromised, gives weight to this claim. As such, the role of Mother Care is secondary to HPMood, but may become of particular interest in samples where HPMood falls below the normal range.

In conclusion, the findings of Study 3 suggest that Mother Care may be an important variable, warranting future consideration, in the homeostatic model of SWB. Based on the current findings, its' current function seems to be that of a buffer variable.

CHAPTER 15: EXECUTIVE DISCUSSION

Summary Overview

This thesis considered the Subjective Wellbeing of children and grandchildren of Holocaust survivors living in Australia. Using homeostatic theory as a guiding framework, the thesis investigated the ways in which descendants of survivors are affected by the trauma that mars their family history. Along the way, the concepts of Social Capital and Jewish Identity were explored and redefined. Study 1 demonstrated that the SWB of Holocaust survivors remained low, even 65 years after the end of the Holocaust. Further, the effects on SWB for their children and grandchildren were manifested in terms of lower positive mood (HPMood), compared to other Australian Jews whose families were not directly affected by the Holocaust. Study 2 then sought to explain how this lowered HPMood was transmitted, testing three modes of intergenerational trauma transmission; attachment, Post Traumatic Stress Disorder (PTSD), and compliance. Although symptoms of PTSD were higher in descendants of survivors as compared to other Jews, the best explanation for their lowered HPMood was revealed to involve the bonding relationship with their Mother. That is, their perceptions of the amount of Care and Control they received from their Mother influenced their personality, which in turn affected their HPMood. In addition, the amount of Care received from one's Mother added unique explanatory variance to SWB, over and above the effects of HPMood. Study 3 then applied the model created in Study 2 to a representative sample of the general Australian population, and validated the role of Mother Care as an important, and as yet undeveloped element in the homeostatic model. The major findings of this thesis are presented in this chapter.

Subjective Wellbeing for Holocaust survivors is low

Subjective Wellbeing concerns an individual's perceptions of the quality of their life. It involves an assessment of one's satisfaction with their life as a whole, which can be approximated by assessing their satisfaction with various life domains including health, achievements and personal relationships. According to the homeostatic model of Subjective Wellbeing (Cummins, Gullone, & Lau,

2002), SWB fluctuates within a given set-point range which, as a sample average, is generally maintained between 70-80 on a 0-100 scale. Homeostatic theory suggests that SWB is maintained within this healthy range in an analogous way to the homeostatic maintenance of body temperature. That is, fluctuations within a given range are acceptable to the homeostatic system, however when a threat causes the level to fall below or exceed the normal set-point range, the system has been overcome. This system acts to protect HPMood, which represents a general state of free-floating positive affect. It is currently conceived that the loss of contact with HPMood forms the basis for depression (Cummins, 2010).

The current study began by exploring SWB and the components of the homeostatic model in the Jewish community. The Jewish community of Australia represents a unique and diverse group of people connected by their shared history and common beliefs and tradition. Part of what makes this community so unique is that they include a large proportion of individuals who survived the Holocaust, and came to Australia to rebuild their lives following the end of World War II. Despite their best attempts to achieve objective normality, previous research has found that survivors continued to suffer psychological effects of the trauma they experienced well into later life. In regards to wellbeing, Holocaust survivors report lower life satisfaction, and lower positive affect (Shmotkin & Lomranz, 1998). Study 1 confirmed that Holocaust survivors in Australia still suffer from the trauma they experienced over 65 years ago. Although there were only five such people in the sample, they were remarkably low on each of the wellbeing variables measured. These findings have implications for set-point theory, such that they imply that the set-point of a given individual may be permanently lowered as a result of a traumatic experience. Future research could explore whether this phenomenon extends to other types of trauma as well.

However, the same results were not evident in Study 2, with the 6 survivors in that sample reporting average levels of SWB. This inconsistency is reflective of prior research, with many studies finding no differences between survivors and comparative others on measures of life satisfaction, affect or depression (e.g. Landau & Litwin, 2000). It is possible that this inconsistency is the result of unreliability caused by the small samples. However, it is also possible that, for survivors, the long–term effects are not universal, but may be a function of the

type of trauma they experienced during the War (e.g. in concentration camps, in hiding, etc.), or whether they survived alone or with family. Unfortunately, the passage of time and the fact that few survivors remain alive today to tell their stories, means that the answers to these questions are likely to never be conclusively understood. However, the findings of the current study in terms of children of survivors can go some way to understanding the specific effects that occur for them.

There is an intergenerational transmission of Holocaust trauma

The intergenerational transmission of trauma refers to the phenomenon that trauma experienced by one generation is passed down to another. The current study conceptualised this trauma as being manifested as lowered HPMood. In Study 1, children of survivors reported lower HPMood than other Jews who were not children of survivors. In Study 2, children of survivors reported lower HPMood than the general Australian sample. Both these findings provide evidence that there are effects of the Holocaust for the second generation. In addition, children of survivors in Study 2 reported greater symptoms of PTSD than other, non-survivor Jews. This was distinct from General Stress, on which there were no differences between groups. Thus, given the higher rate of PTSD symptoms, coupled with the lower HPMood in children of Holocaust survivors, support for the intergenerational transmission of trauma seems likely.

This research also suggests that the trauma may be exaggerated for individuals who had two Holocaust survivors as parents. In both studies, individuals who had one parent who was a Holocaust survivor and the other who was not, reported HPMood comparable to the rest of the sampled population. By contrast, those who had two parent Holocaust survivors reported lower scores on all wellbeing variables in Study 1. It can therefore be concluded that the intergenerational transmission of trauma occurs, at least for matters pertaining to affect and wellbeing in these samples, only for those who had two parent Holocaust survivors. This notion is supportive of Kellerman's (2001b) clinical observations that children of two parent survivors may be an "at-risk" group who are particularly vulnerable to psychopathology, and goes some way to clarifying the inconsistencies found in previous studies where the number of parent

survivors was not considered. Future research with this generation should be sure to specify whether participants had one or both parents who were Holocaust survivors.

Furthermore, the finding that children of Holocaust survivors report lower HPMood is thought to reflect a specific vulnerability in this group. Just as survivors themselves were referred to as an extremely resilient, yet specifically vulnerable group, the same can be said to apply to their children. The second generation, despite experiencing a compromise on many wellbeing variables as well as higher rates of PTSD symptoms, have managed to maintain an overall level of SWB that is within the normal range. Many have also been able to lead objectively successful and 'normal' lives. Thus, the current findings imply that, although children of survivors may be able to "hide" the effects of the Holocaust in their day to day life, they may be particularly vulnerable to suffer adverse psychological effects in the face of future trauma.

As an alternative explanation, there is some suggestion in the literature that there are adaptive advantages to experiencing a less positive mood. Through a series of recent experiments, it has been shown that when people are induced into a sad mood, they perform better than happier people at cognitive processing tasks. The types of tasks on which people in sad moods performed better included recall memory, detecting deception, social judgments, and producing persuasive arguments (Forgas, 2010; 2007a; 2007b). It has been explained that people experiencing a less positive mood are more attuned to situational and environmental stimuli, and as such engage in a more information-focused processing style (Forgas, 2007b). They are more sceptical, less naïve and more vigilant when it comes to social interactions and cognitive processing. Thus, reduced positive mood serves a functional purpose to evoke a more attentive cognitive style when required.

According to this view, the lower HPMood in children of Holocaust survivors may be interpreted as a subconscious, preventative defense which acts to prepare them to avoid the trauma that their parents suffered. Perhaps the severe trauma experienced by their parents has triggered this epi-genetic process to make negative affect more salient, such that they are equipped with necessary skills that

may alert them to future danger. This line of thought promotes a new way of thinking about the intergenerational transmission of trauma, which has generally been viewed as a negative outcome. The possibility remains that it may actually be a functionally adaptive mechanism, which is advantageous in a threatening world.

In addition to finding evidence for the effects of the Holocaust to the second generation, study 1 provided evidence of transmission down to the third generation. However, findings were only evident when an individual had all 4 grandparents survive. It should be remembered that having all 4 grandparents survive means being a child of two individuals from the "at-risk" group previously identified. Study 1 revealed that members of the third generation with 4 grandparent survivors reported lower Self-Esteem than other members of the third generation, and other Jews who were not descendants of Holocaust survivors. Additionally, in Study 2, third generation members with 4 grandparent survivors reported higher Neuroticism than both other groups. These findings support the idea of a complex model of risk defined by Scharf (2007), who found effects for the third generation particularly when both parents were themselves children of Holocaust survivors. The current findings extend this complex model to clarify that both parents must be children of *two* Holocaust survivors for effects on the third generation to be found.

In attempting to explain the way that trauma is actually transmitted, Study 2 compared three models of trauma transmission. The first model considered attachment processes of Care and Control. It explained that the amount of Care and Control received from one's Mother or Father influenced the personality factors of Neuroticism and Extraversion, which subsequently influenced HPMood. The second model considered the notion of secondary trauma, that it is possible to experience symptoms of PTSD in relation to an event just by coming into repeated contact with people or things associated with the event. This model explained that PTSD related to the Holocaust, in terms of Intrusion and Avoidance, affects HPMood via influencing Neuroticism and Extraversion. The final model considered how two elements of Compliance, a construct which represents a personality trait observed to be common in children of Holocaust survivors, affect Neuroticism and Extraversion, and in turn HPMood. Despite

finding that, compared to other Jews, children and grandchildren of survivors report higher rates of PTSD in relation to the Holocaust, the model which best explained how the transmission of trauma occurs implicated Mothering as the key factor.

The transmission of Holocaust trauma occurs primarily through Mothering

Mother Care influences HPMood by contributing to both Neuroticism and Extraversion. This is in line with Bowlby's (1977) idea that early attachment relationships influence the developing personality of a child. Specifically, Bowlby's comment that "the prolonged deprivation of a young child of maternal care may have grave and far reaching effects on his character and so on the whole of his future life" (Bowlby, 1953, as cited in Holmes, 1993, pg. 37) seems justified. Further, these "effects" may be so far reaching that they extend across generations. The findings of the current study specifically support Thomas' (2004) proposal that a child who receives high care views future relationships positively, and is more inclined to develop an extraverted personality style. In addition, children who receive low Care approach future interactions with an anxious and wary outlook, which can be displayed as a tendency towards Neuroticism. The other element of Mothering, Control, influences Neuroticism because the child who experiences overprotective parenting fails to develop appropriate coping skills, and learns to believe that the world is a threatening place from which they require protection.

Through exploratory analyses, Study 2 also found that Mother Care uniquely predicted SWB in addition to HPMood and Self Esteem. When the same analysis was then performed for the Study 3 sample, but included the other cognitive buffers of Control and Optimism, the influence of Mother Care on SWB was diminished. This implies that any effect of Mother Care on SWB is indirect, likely through its effect on HPMood and Self-Esteem as previous literature (i.e. Kenny & Sirin, 2006) has suggested. An alternative suggestion is that the effect of Mothering becomes especially important when HPMood is compromised, as seen in the Study 2 sample. Accordingly, Mother Care may act as a 'buffer' to SWB, in much the same way that Self-Esteem, Optimism, and Control are thought to buffer SWB. The final model created in Study 3 confirms the plausibility of this

claim, with an extended version of the homeostatic model, including Mother Care, shown to fit the data better than an alternative model. Future research could continue to explore the role of Mother Care in the homeostatic model, specifically within other groups that have been subject to trauma.

Besides creating a model to explain the intergenerational transmission of trauma, and proposing Mother Care as a buffer in the homeostatic model of SWB, this thesis also explored the concepts of Social Capital and Jewish Identity. The findings can be used to direct future research considering these constructs.

Social capital is not akin to social trust

For Study 1, the complex and theoretically multifaceted construct of Social Capital was explored, in an attempt to provide some consensus to the mass of existing literature in the area. Drawing on the works of Bourdieu (1986), Coleman (1988), and Putnam (1993), the current study argues that the common thread between these viewpoints is trust. That is, without trust, there would be no impetus for a social relationship or exchange to begin, and thus, no basis for social capital to develop. Further, trust underlies future exchanges by promoting reciprocity and adherence to norms, which are the other commonly recognised elements of Social Capital. Accordingly, Study 1 sought to assess whether Social Capital at the community level is best conceptualised in terms of Social Trust. Findings from Study 1 revealed that the major components of Social Capital were Bonding, Bridging, Belonging, and a sense of Safety. However, together these variables were not adequate predictors of Trust, suggesting that Trust may be an element of Social Capital, but it is not an outcome of it. This is contrary to Coleman's (1988) proposition, and more in line with that of Putnam (1993). However, Coleman conceptualised Social Capital at the family level, while Putnam considered it at the community level. As such, it may be inferred that Social Capital is not analogous at varying levels of conceptualisation. Social capital may have certain properties at the individual level which do not apply at the familial level, which may again be inapplicable at the community level. The logical extension of this is that perhaps the inconsistency between the views of Bourdieu, Coleman and Putnam is due to the fact that Social Capital is not

uniform across contexts, and thus any attempt to merge their perspectives is likely to flounder.

On the other hand, the link between Social Capital and Trust may need to be considered from an alternative perspective. Study 1 considered Social Capital as belonging to people who trust. This idea, in hindsight, may be misconceived. As more recent research has proposed, Social Capital may be held in the hands of the person who is trusted, rather than the trustor (Castelfranchi, Falcone, & Marzo, 2006). In this way, Social Capital may be conceived as Social Power, which belongs to the person who is trusted and with whom future exchanges may be likely to occur. This represents a future direction for the construct of Social Capital, which, although potentially difficult to measure, could be an important step forward in redefining and reconceptualising this construct.

Jewish identity comprises cultural and traditional elements

The notion of a Jewish Identity reflects what being Jewish means to an individual. Based on Social Identity Theory (Tajfel & Turner, 1986) a person may have multiple social identities. A Jewish Identity therefore represents the salience of the Jewish aspect of a person's identity which must comprise, among other things, a complex integration of culture, religion, tradition and ethnicity. Studies in the US have operationalised a Jewish identity as encompassing cultural and religious aspects. However, in today's Australian society, religious Jews are the minority, with most Jews living a lifestyle that is more assimilated and conventional with typical Australian life. As such, the idea that a Jewish identity must encompass religion demands revision, and Study 1 indeed revealed that adhering to traditional Jewish activities is a better indicator of Jewish Identity than religious observance. By adhering to such activities, including having a Passover Seder and lighting candles on Hanukkah, Jewish people partake in traditions that have longstanding histories. By routinely performing these acts, they align themselves with a group bound by a shared history and belief system, and in doing so cement their place and their Identity as part of this group. The finding from Study 1 implies that it is not necessary to be religiously observant to maintain a strong sense of Jewish Identity. Accordingly, future measures of Jewish Identity should necessarily include a traditional component, alongside a

cultural component. Although the influence of a religious identity was not found in Study 1, it is worth including religious aspects in future studies, particularly when sampling from more observant Jewish samples.

Limitations of the present studies

The first two studies may have been limited in terms of the way the Jewish sample was recruited. Participants were recruited through an online networking site, and through Jewish schools and organisations. This is not an accurate representation of the Jewish population of Australia as a whole, as it only samples people who had children at a Jewish school, or who belonged to a community organisation. Further, the permission of principals and organisation leaders was required before surveys could be sent to their members. Where an email was sent to a principal or organisation head and no response was returned, no action was taken to follow up their response as it was assumed that a large enough sample would be acquired through those that had granted their permission. Accordingly, future studies should attempt to obtain a more representative sample of the Jewish population by sampling beyond Jewish schools and community groups.

In addition, the advertisements for Study 2 specifically called for participants who were descendants of Holocaust survivors. Although advertisements were placed in a local community newspaper, it may have inadvertently only been noticed by those whose identity as a descendant of a Holocaust survivor is particularly salient. As such, the sample obtained may comprise a biased reflection of those descendants of Holocaust survivors who perceive their lives to be affected by their parents' or grandparents' experiences. Future studies could attempt to obtain a larger sample of Jewish individuals, which would incidentally comprise many descendants of survivors without specifically seeking to do so.

Finally, to ensure adequate power for comparisons between second generation participants who had one parent or two parent survivors, a larger sample size for both groups is required in future studies. This would enable greater confidence in the research findings and would highlight any other potential differences between the groups in terms of their SWB.

Future directions

It is an unfortunate reality that mass trauma is not confined to the Holocaust. Certainly, today, almost 10 years since the terrorist attacks on the World Trade Center (WTC) in New York, the idea of a transmission of trauma occurring for children of evacuees and first-responders has been recognised (Pierce & Bergman, 2006; Hoven et al., 2009). With the continued threat of mass violence evoking great fear and uncertainty in today's society, lessons from this thesis may contribute to an understanding of how children and grandchildren of victims of other types of trauma may be affected.

Indeed, and in strong support of the current findings, one intervention in relation to the WTC attacks, the World Trade Center Project, sought to provide a support group for widows who lost their husbands in the WTC attacks and who were pregnant at the time (Pierce & Bergman, 2006). Therapists working with these women noted that many of them were preoccupied with their partners' death, and this subsequently affected their capacity to bond with their newborn child. Their preoccupation with their own emotional trauma threatened to disturb the caretaking relationship with their baby, and this presents a real-world extension of how Mother Care explains the transmission of trauma for children of Holocaust survivors.

Overall, this thesis provides insight into the role of Mother Care in the homeostatic model, and into the conceptualisation of Social Capital and Jewish Identity. However, arguably its principal and most essential contribution to research is that this thesis offers evidence for the intergenerational transmission of Holocaust trauma down two generations for an Australian sample. Although the Holocaust took place over 65 years ago, its impact on those who experienced it first hand, and on their families, is pervasive, persistent, and enduring.

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APPENDIX A:
THE CASE FOR A SHORTENED VERSION OF THE ROSENBERG SELF-ESTEEM SCALE (RSES)*THE ROSENBERG SELF-ESTEEM SCALE*

The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) is a popular tool for measuring self-esteem in adolescents and adults. It includes five positively-worded items and five negatively worded items, the responses to which are summed to compute an overall score where higher scores reflect higher self-esteem. The items are shown below:

The Rosenberg Self-Esteem Scale

1. I feel I am a person of worth, at least on an equal plane with others
2. I feel I have a number of good qualities
3. All in all, I am inclined to feel that I am a failure *
4. I am able to do things as well as most other people
5. I feel I do not have much to be proud of *
6. I take a positive attitude toward myself
7. On the whole, I am satisfied with myself
8. I wish I could have more respect for myself *
9. I certainly feel useless at times *
10. At times I think that I am no good at all *

Note: * = reverse-scored items.

Despite the widespread use and popularity of the RSES, the scale's factor structure and potential for item-response bias has come under challenge. Rosenberg (1965) originally conceived the scale as representing a uni-dimensional construct. While many authors have replicated the unidimensionality of the RSES in their studies, there is mounting evidence to suggest that an underlying two-factor structure is also present (Owens, 1994; Sheasby, Barlow, Cullen, & Wright, 2000; Tafarodi & Swann, 1995; Marsh, 1996; Corwyn, 2000; Martin, Thompson, & Chan, 2006; Roth, Decker, Herzberg, & Brahler, 2008).

Negatively-worded items are included in many scales so as to promote controlled thinking; that is, to ensure that respondents are thinking about the statement and its implications and responding accordingly. Although negative items are included to discourage an acquiescent response style, they can also lead to confusion. For example, the item in the RSES "I certainly feel useless at times" directs participants to either agree or disagree with a negative statement. To respond in a manner indicative of high self-esteem, participants must overcome the cognitive perplexity of negating a negative statement. When both positive and negative items are included in a scale and reveal separate factors, it needs to be determined whether these differences are actually due to an item-response bias (or method effects), or whether the separate factors reflect meaningful variation within a single construct (Marsh, 1996).

According to some authors (e.g. Schmitt & Allik, 2005), the tendency for two factors to emerge from the RSES does not imply that positive and negative self-esteem are separate constructs. Indeed, many other authors agree and find little suggestion that either positive or negative items contribute more than the other to the super-ordinate factor (Pullmann & Allik, 2000; Martin, Thompson, & Chan, 2006). This is likely the reason the full 10-item scale is usually used despite acknowledgement of method effects. While this argument is acceptable, there also seems little reason to justify including all 10 items if fewer than that amount can adequately evaluate the construct.

A bi-dimensional view of self-esteem has been presented which sets the precedent for the debate that positive and negative items might be confusing the concept of self-esteem (Owens, 1994). In this model, positively-worded items reflect one aspect of self-esteem, positive self-worth. Negatively-worded items, on the other hand, measure self-deprecation. This suggestion that two different latent constructs exist has been confirmed by Martin, Thompson, and Chan (2006) who demonstrated that the negative sub-scale of the RSES assesses a qualitatively different phenomenon from both the total RSES scale, and the positive sub-scale. These authors also found that the positive sub-scale accurately distinguished between depressed and non-depressed participants, whereas the negative subscale failed to discriminate between them. It is commonly accepted theory that self-esteem and depression are closely related, so if the negative subscale cannot

adequately distinguish depressed from non-depressed participants, its use is questionable. Further, others have claimed that some of the negative items in the RSES are less effective at distinguishing between people with high or low self-esteem (e.g. Gray-Little, Williams, & Hancock, 1997; Marsh, 1996). These authors recommend that either negative items be eliminated from the scale altogether, or, if included, weightings defined by factor loadings be assigned to all items.

Table 104:

An example of the two-factor structure of the RSES for an adult sample (Reproduced from Corwyn, 2000)

Item		Positive	Negative
1	I feel I am a person of worth, at least on an equal plane with others	.697	
2.	I feel I have a number of good qualities	.818	
3.	All in all, I am inclined to feel that I am a failure*		.891
4.	I am able to do things as well as most other people	.614	
5.	I feel I do not have much to be proud of *		.787
6.	I take a positive attitude toward myself	.839	
7.	On the whole, I am satisfied with myself	.565	
8.	I wish I could have more respect for myself *		.632
9.	I certainly feel useless at times *		.784
10.	At times I think that I am no good at all *		.786

*Note: * = reverse-coded items*

There are additional concerns regarding the wording of some of the negative items. As can be seen in Table 104, the positively-worded items are general statements, that reflect how the individual feels most of the time, or as in item 7, "on the whole". In comparison, some of the negatively-worded items include qualifying statements such as "at times" in items 9 and 10. It has been noted that confirming a statement regarding a feeling at one or two times is different from supporting a generally held conceptualisation of the self (Steinberg & Thissen, 1995, in Gray-Little, Williams, & Hancock, 1997). It is thus quite possible that a person who has a very positive attitude toward themselves in general might also wish they could have more respect for themselves. This potential for ambiguity with some of the negative items acts as further evidence that the RSES is potentially confounded.

Finally, the choice of whether to use the full 10 items of the RSES or whether to eliminate the negative items comes down to an analysis of the definition of self-esteem as given by Rosenberg (1979). According to the author of the scale, a person with high self-esteem does not express "feelings of superiority, in the sense of arrogance, conceit, contempt for others… rather, that he has self-respect, considers himself a person of worth" (Rosenberg, 1979, p. 54). Rosenberg continues to claim that a person characterised by high self-esteem "nonetheless recognises his faults, faults that he hopes and expects to overcome". This definition is important for two reasons. The first refers to the concern that an individual who responds by "strongly disagreeing" with say, item 9, is claiming that they never, at any time or in any situation, "feel useless". According to the way the scale is scored, a "strongly disagree" response on a reverse-scored item indicates high self-esteem. Surely however, an extremely negative response to a qualified negative statement such as item 8 comes fairly close to crossing Rosenberg's line of "arrogance" and "conceit" which is typically *not* how he conceived high self-esteem.

The second reason centres on Rosenberg's assertion that a person with high self-esteem recognises their faults. Responding that one agrees with a negative statement indicates low self-esteem according to the scoring instructions. However, it is possible that a person who responds that they agree with any of the negatively-worded items is simply showing humility or, in Rosenberg's terms, "recognises his faults". According to Rosenberg, recognising one's faults is characteristic of high self-esteem, yet in his scale any acknowledgement of fault or imperfection lowers the overall self-esteem score.

Considering the ambiguity and confusing nature of the negatively-worded items in the RSES, and the studies which reveal that using only the positive items represents the same construct as the overall scale (e.g. Owens, 1994; Martin, Thompson, & Chan, 2006) only the positively-worded items will be used in the current study. Thus, the revised Rosenberg Self-Esteem Scale is as follows:

1. I feel I am a person of worth, at least on an equal plane with others
2. I feel I have a number of good qualities
3. I am able to do things as well as most other people
4. I take a positive attitude toward myself
5. On the whole, I am satisfied with myself

APPENDIX B:

PLAIN LANGUAGE STATEMENT, QUESTIONNAIRE & ETHICS – STUDY 1

DEAKIN UNIVERSITY
PLAIN LANGUAGE STATEMENT AND CONSENT FORM

TO: *Participants*

Plain Language Statement

Date: 19th August 2008

Full Project Title: Subjective Wellbeing, Social Capital and Identity in the Australian Jewish Community

Principal Researcher: Prof. Bob Cummins

Student Researcher: Melissa Weinberg

This Plain Language Statement is 3 pages long. Please make sure you have all the pages.

1. Your Consent

You are invited to take part in this research project.

This Plain Language Statement contains detailed information about the research project. Its purpose is to explain to you as openly and clearly as possible all the procedures involved in this project so that you can make a fully informed decision whether you are going to participate.

Please read this Plain Language Statement carefully. Feel free to ask questions about any information in the document. You may also wish to discuss the project with a relative or friend or your local health worker. Feel free to do this.

Once you understand what the project is about and if you agree to take part in it, you will be asked to complete the questionnaire. By completing the questionnaire, you indicate that you understand the information and that you give your consent to participate in the research project.

1. Purpose and Background

The purpose of this project is to explore wellbeing in the Jewish community and the factors contributing to it. This research is being conducted as part of a PhD (Psychology) thesis.

A total of at least 300 people will participate in this project.

Previous research has shown that wellbeing in the Australian community sits consistently around the 75-level on a scale of 0-100. No study thus far has explored subjective wellbeing or the factors contributing to it specifically in the Jewish community of Australia.

This study aims to explore these areas, with a particular focus on families of Holocaust survivors living in Australia.

You are invited to participate in this research project because you are Jewish and living in Australia. This website may have been forwarded to you by an organisation to which you belong on my behalf, or may have been passed on to you by friends who think you would like to participate. As such I retain no information regarding any of your personal details.

The results of this research may be used to help researcher Melissa Weinberg to obtain a Doctor of Philosophy (PhD) degree.

2. Procedures

Participation in this project will involve completion of an online questionnaire. The questionnaire will take no more than 15-20 minutes to complete. The questionnaire involves items relating to personal wellbeing, affect, self-esteem, optimism, sense of control, social capital, and sense of Jewish identity, as well as some demographic items (though nothing that will allow you to be identified). You will be encouraged to complete all items on the questionnaire, though you may omit some items if you do not wish to respond to them. If you wish to participate you may complete the online questionnaire at any time, and upon completion you will be requested to click on a button to submit it to the researcher.

3. Possible Benefits

Although the research findings have implications for the community as a whole**,** we cannot guarantee or promise that you will receive any direct personal benefits from this project.

4. Possible Risks

There are no foreseeable risks for participating in this study as you will simply be required to complete questionnaire items that assess your personal feelings, opinions and beliefs. However, in the unlikely event that you experience any form of discomfort or distress through participating in this study, you may call Lifeline (24hr crisis line) 131 114, or Jewish Care (03) 8517 5999. You may choose to withdraw from the study at any time prior to submitting the questionnaire without any effects occurring for you.

4.1. Privacy, Confidentiality and Disclosure of Information

You will be instructed not to put your name or any other identifying details on the questionnaire, so as to ensure strict anonymity and confidentiality. Only aggregated data will be reported in a thesis and by submitting the questionnaire you are agreeing to allow your results to be used to form aggregate data.

The information collected during the study will be stored in hard-copy and computer files in secure storage for a minimum of 6 years, in accordance with Deakin University guidelines. Following this period the hard-copy files will be destroyed and the computer files deleted. A report of the study may be submitted for publication to a psychological journal, however individual participants will not be identifiable in such a report as only aggregate data will be reported.

5. Results of Project

You are encouraged to contact the researcher at the completion of the study to be informed of the aggregate research findings. Aggregate results will be published in a thesis and it is anticipated that they will also form part of a publication in a psychology journal.

6. Participation is Voluntary

Participation in any research project is voluntary. **If you do not wish to take part you are not obliged to.** If you decide to take part and later change your mind, you are free to withdraw from the project at any stage before you submit your completed questionnaire. After you submit your questionnaire it will not be possible to withdraw from participation as there will be no way of identifying which questionnaire is yours. Any information obtained from you to date will not be used and will be destroyed.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your relationship with Deakin University or with the organisation through which you have been invited to participate.

Before you make your decision, a member of the research team will be available to answer any questions you have about the research project. You can ask for any information you want. Complete the questionnaire only after you have had a chance to ask your questions and have received satisfactory answers.

If you decide to withdraw from this project, please do not submit your questionnaire.

7. Ethical Guidelines

This project will be carried out according to the *National Statement on Ethical Conduct in Human Research* (2007) produced by the National Health and Medical Research Council of Australia. This statement has been developed to protect the interests of people who agree to participate in human research studies.

The ethics aspects of this research project have been approved by the Human Research Ethics Committee of Deakin University.

7.1. Complaints

If you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact:

The Executive Officer, Human Research Ethics Committee, Deakin University, 221 Burwood Highway, Burwood Victoria 3125, Telephone: 9251 7123, Facsimile: 9244 6581; research-ethics@deakin.edu.au.

Please quote project number HEAG-H 120 -2008.

7.2. Reimbursement for your costs

You will not be paid for your participation in this project.

7.3. Further Information, Queries or Any Problems

If you require further information, wish to withdraw your participation or if you have any problems concerning this project (for example, any side effects), you can contact the principal researcher, Prof. Bob Cummins or the student researcher, Melissa Weinberg.

The researchers responsible for this project are:

Melissa Weinberg (student researcher), Deakin University, Faculty of Health, Medicine, Nursing, and Behavioural Sciences, School of Psychology, 221 Burwood Hwy, Burwood, 3125. Ph: 9251 7235. For after hours contact please call 0402 039 491

Professor Bob Cummins (principal researcher), Deakin University, Faculty of Health, Medicine, Nursing, and Behavioural Sciences, School of Psychology, 221 Burwood Hwy, Burwood, 3125. Ph: 9244 6845.

SECTION K DEMOGRAPHIC INFORMATION

76 Your gender

☐ Male ☐ Female

77 Your age

78 Your postcode

79 Please indicate from the list who lives with you. (tick whichever boxes apply)

☐ No one, you live by yourself ☐ One or more children ☐ Your partner
☐ One or both of your parents ☐ One or more adults who are neither your partner nor your parent

80 Please indicate which of the following categories apply to you at the present time.

☐ Never married ☐ Separated but not divorced ☐ Married
☐ Divorced ☐ De facto or living together ☐ Widowed

81 Please indicate which of the following categories best applies to you at the present time. Are you in…

☐ Full-time paid employment ☐ Full-time home or family care ☐ Full-time retired
☐ Full-time study ☐ Semi-retired ☐ Unemployed
☐ Full-time volunteer

82 Please indicate whether any of the following part-time categories applies to you at the present time. Are you…?

☐ In part-time paid employment ☐ A part-time volunteer ☐ In part-time study

83 Please indicate your household's total annual income before tax.

☐ Less than $15,000 ☐ $15,000 to $30,000 ☐ $31,000 to $60,000 ☐ $61,000 to $100,000
☐ $101,000 to $150,000 ☐ $151,000 to $250,000 ☐ $251,000 to $500,000 ☐ More than $500,000

84 In which country were you born?

85 Are you, or are/were any of your parents or grandparents survivors of the Holocaust (where a "Holocaust survivor" is defined as a Jew who lived at any time within a Nazi-occupied or Nazi-ruled European country during World War II)?

☐ Yes ☐ No

86 If yes, please indicate who:

☐ Yourself ☐ Your Mother ☐ Your Father ☐ Maternal grandmother
☐ Maternal grandfather ☐ Paternal grandmother ☐ Paternal grandfather

87 Please indicate which of the following categories best describes your religious attitude:

☐ Ultra Orthodox ☐ Modern Orthodox ☐ Traditional/Conservative ☐ Reform/Liberal

Other (please specify)

88 Would you be interested in participating in a future study that will specifically explore the long-term effects of the Holocaust on survivors and their relatives? (You do not have to be a descendant of a survivor to participate)

☐ Yes ☐ No

If yes, please provide your email address or contact details on the attached form and include it with this questionnaire in the reply-paid envelope.

Your participation in this study is greatly appreciated. Thank you.

The Australian Jewish Wellbeing Inventory

Thank you for your involvement in this study. This is a confidential and strictly anonymous questionnaire so please ensure that you do not write your name, or any other comments that might make you identifiable. Your completion and return of the questionnaire indicates your consent to participate, as explained in the plain language statement enclosed. Please only complete the questionnaire if you are Jewish and you are over 18 years old.

Please ensure that you answer all questions thoughtfully and honestly. When you have completed the questionnaire please enclose it in the reply paid, pre-addressed envelope provided and return it to Deakin University.

SECTION A PERSONAL WELLBEING

Please circle the number which corresponds to how satisfied you feel with your life. 0 means you feel completely dissatisfied. 10 means you feel completely satisfied. And the middle of the scale is 5, which means you feel neither satisfied nor dissatisfied.

Thinking about your own life and personal circumstances, how satisfied are you with...		**Completely Dissatisfied**				**Neutral**					**Completely Satisfied**
1	your life as a whole?	0	1	2	3	4	5	6	7	8	9	10
2	your standard of living?	0	1	2	3	4	5	6	7	8	9	10
3	your health?	0	1	2	3	4	5	6	7	8	9	10
4	what you are currently achieving in life?	0	1	2	3	4	5	6	7	8	9	10
5	your personal relationships?	0	1	2	3	4	5	6	7	8	9	10
6	how safe you feel?	0	1	2	3	4	5	6	7	8	9	10
7	feeling part of your community?	0	1	2	3	4	5	6	7	8	9	10
8	your future security?	0	1	2	3	4	5	6	7	8	9	10
9	your spirituality or religion?	0	1	2	3	4	5	6	7	8	9	10

SECTION B HOW YOU GENERALLY FEEL

Please indicate how you feel when you think about your life in general. This scale ranges from 0="Not at all"to 10="Extremely".		**Not At All**									**Extremely**
10	How happy do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
11	How content do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
12	How alert do you generally feel?	0	1	2	3	4	5	6	7	8	9	10

SECTION C WHAT YOU EXPECT TO HAPPEN

How much do you agree or disagree with the following statements?		**Strongly Disagree**				**Neutral**					**Strongly Agree**
13	In uncertain times, I usually expect the best.	0	1	2	3	4	5	6	7	8	9	10
14	I'm always optimistic about my future.	0	1	2	3	4	5	6	7	8	9	10
15	Overall, I expect more good things to happen to me than bad	0	1	2	3	4	5	6	7	8	9	10

SECTION D COPING WITH LIFE

How much do you agree that when something bad happens to you...		**Strongly Disagree**				**Neutral**					**Strongly Agree**
16	You ask others for help or advice.	0	1	2	3	4	5	6	7	8	9	10
17	You look for different ways to improve the situation.	0	1	2	3	4	5	6	7	8	9	10
18	You use your skills to overcome the problem.	0	1	2	3	4	5	6	7	8	9	10
19	You remind yourself that something good may come of it.	0	1	2	3	4	5	6	7	8	9	10
20	You remind yourself that you are better off than some others	0	1	2	3	4	5	6	7	8	9	10
21	You remember that the situation will improve if you are patient	0	1	2	3	4	5	6	7	8	9	10

SECTION E MORE ABOUT YOURSELF

How much do you agree or disagree with the following statements?	Strongly Disagree					Neutral					Strongly Agree
22 I feel that I'm a person of worth, at least on an equal plane with others.	0	1	2	3	4	5	6	7	8	9	10
23 I feel that I have a number of good qualities.	0	1	2	3	4	5	6	7	8	9	10
24 I am able to do things as well as most other people.	0	1	2	3	4	5	6	7	8	9	10
25 I take a positive attitude toward myself.	0	1	2	3	4	5	6	7	8	9	10
26 On the whole, I am satisfied with myself.	0	1	2	3	4	5	6	7	8	9	10

SECTION F SOCIAL COHESION

Please indicate how much you agree or disagree with the following statements:	Strongly Disagree					Neutral					Strongly Agree
27 Most people in the Jewish community can be trusted	0	1	2	3	4	5	6	7	8	9	10
28 Most people in the Australian community can be trusted	0	1	2	3	4	5	6	7	8	9	10
29 It is important to me to help Jewish community groups as a volunteer	0	1	2	3	4	5	6	7	8	9	10
30 It is important to me to attend Jewish community events	0	1	2	3	4	5	6	7	8	9	10
31 It is important to me to be an active member of a Jewish organisation or club	0	1	2	3	4	5	6	7	8	9	10
32 If I disagreed with everyone else in the Jewish community, I would feel free to speak out	0	1	2	3	4	5	6	7	8	9	10
33 I feel safe walking down my street after dark	0	1	2	3	4	5	6	7	8	9	10
34 I feel that the Jewish community is a safe place	0	1	2	3	4	5	6	7	8	9	10
35 My Jewish community feels like home	0	1	2	3	4	5	6	7	8	9	10
36 I can get help from friends in the Jewish community when I need it	0	1	2	3	4	5	6	7	8	9	10
37 There are several people in the Jewish community I trust to help solve my problems	0	1	2	3	4	5	6	7	8	9	10
38 There is always someone in the Jewish community to help me with important decisions	0	1	2	3	4	5	6	7	8	9	10
39 If I needed an emergency loan of $1,000 I know someone in the Jewish community I could turn to	0	1	2	3	4	5	6	7	8	9	10
40 There are people in the Jewish community who would put their reputation on the line for me	0	1	2	3	4	5	6	7	8	9	10
41 There are people in the Jewish community who would provide a good job reference for me	0	1	2	3	4	5	6	7	8	9	10
42 There are people in the Jewish community who would share their last dollar with me	0	1	2	3	4	5	6	7	8	9	10
43 There are people in the Jewish community who would help me fight an injustice	0	1	2	3	4	5	6	7	8	9	10
44 Interacting with people in the Jewish community makes me feel like part of a worldwide Jewish community	0	1	2	3	4	5	6	7	8	9	10
45 Interacting with people in the Jewish community reminds me that all Jews in the world are connected	0	1	2	3	4	5	6	7	8	9	10
46 I want the same things from our Jewish community as most other members	0	1	2	3	4	5	6	7	8	9	10
47 I care about what other members of the Jewish community think about my actions	0	1	2	3	4	5	6	7	8	9	10
48 I have an influence over what the Jewish community is like	0	1	2	3	4	5	6	7	8	9	10
49 Problems that develop in the Jewish community get easily solved	0	1	2	3	4	5	6	7	8	9	10
50 The people in the Jewish community generally get along well with one another	0	1	2	3	4	5	6	7	8	9	10

SECTION G JEWISH IDENTITY

Please indicate how much you agree or disagree with the following statements:	Strongly Disagree					Neutral					Strongly Agree
51 I have spent much time finding out about my own Jewish heritage, such as its history, traditions and customs	0	1	2	3	4	5	6	7	8	9	10
52 I am active in organisations or social groups that include mostly members of the Jewish community	0	1	2	3	4	5	6	7	8	9	10
53 I have a clear sense of my Jewish heritage and what it means to me	0	1	2	3	4	5	6	7	8	9	10
54 I think a lot about how my life is affected by my Jewish heritage	0	1	2	3	4	5	6	7	8	9	10
55 I am happy that I am Jewish	0	1	2	3	4	5	6	7	8	9	10
56 I have a strong sense of belonging to the Jewish community	0	1	2	3	4	5	6	7	8	9	10
57 I understand well what being a member of the Jewish community means to me	0	1	2	3	4	5	6	7	8	9	10
58 In order to learn more about my Jewish heritage, I have often talked to other people about the Jewish community	0	1	2	3	4	5	6	7	8	9	10
59 I have a lot of pride in the Jewish community and its accomplishments	0	1	2	3	4	5	6	7	8	9	10
60 I participate in Jewish culture, such as Jewish food, music, and customs	0	1	2	3	4	5	6	7	8	9	10
61 I feel a strong attachment towards the Jewish community	0	1	2	3	4	5	6	7	8	9	10
62 I feel good about my Jewish background	0	1	2	3	4	5	6	7	8	9	10

SECTION H RELIGIOUS BELIEFS

Please indicate how much you agree or disagree with the following statements:	Strongly Disagree					Neutral					Strongly Agree
63 My religious faith is strong	0	1	2	3	4	5	6	7	8	9	10
64 It is important to me to attend religious services regularly	0	1	2	3	4	5	6	7	8	9	10
65 My religious beliefs serve as a comfort to me	0	1	2	3	4	5	6	7	8	9	10
66 I often celebrate religious holidays	0	1	2	3	4	5	6	7	8	9	10

SECTION I JEWISH ACTIVITIES

Please indicate how often you participate in the following Jewish activities: How often do you or members of your household...	Never					Sometimes					All the time
67 Attend a seder on Passover	0	1	2	3	4	5	6	7	8	9	10
68 Light candles on Hanukkah	0	1	2	3	4	5	6	7	8	9	10
69 Fast on Yom Kippur	0	1	2	3	4	5	6	7	8	9	10
70 Attend synagogue more than once a month	0	1	2	3	4	5	6	7	8	9	10
71 Light candles on Friday night	0	1	2	3	4	5	6	7	8	9	10
72 Purchase Kosher meat	0	1	2	3	4	5	6	7	8	9	10
73 Use separate dishes for meat and dairy products	0	1	2	3	4	5	6	7	8	9	10
74 Refrain from handling money on the Sabbath	0	1	2	3	4	5	6	7	8	9	10

SECTION J STRENGTH OF JEWISH IDENTITY

	Not Strong At All										Extremely Strong
75 On a scale where zero equals "not strong at all" to ten equals "extremely strong", how would you rate the overall strength of your Jewish identity?	0	1	2	3	4	5	6	7	8	9	10

DEAKIN UNIVERSITY

Human Ethics Advisory Group – Faculty of Health, Medicine, Nursing and Behavioural Sciences

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Memorandum

To	Professor Bob Cummins School of Psychology	Date	1 September, 2008
From	Secretary – HEAG-H Faculty of Health, Medicine, Nursing, and Behavioral Sciences		
Subject	HEAG-H 120_08: Subjective wellbeing, social capital and the identity in the Australian Jewish community.		

Approval has been given for Professor Robert Cummins, School of Psychology, to undertake this project with the for a period of 3 years from 1 September, 2008 subject to the following conditions:

- **Sampling may only commence when HEAG-H have received evidence of approval from the school principals**

The approval given by the Deakin University HEAG - H is given only for the project and for the period as stated in the approval. It is your responsibility to contact the Secretary immediately should any of the following occur:

- Serious or unexpected adverse effects on the participants
- Any proposed changes in the protocol, including extensions of time
- Any events which might affect the continuing ethical acceptability of the project
- The project is discontinued before the expected date of completion
- Modifications that have been requested by other Human Research Ethics Committees

In addition you will be required to report on the progress of your project at least once every year and at the conclusion of the project. Failure to report as required will result in suspension of your approval to proceed with the project.

HEAG-H may need to audit this project as part of the requirements for monitoring set out in the National Statement on Ethical Conduct in Human Research (2007).An Annual Project Report Form can be found at http://www.deakin.edu.au/research/admin/ethics/human/forms/ which you will be required to complete in relation to this research. This should be completed and returned to the Administrative Officer to the HEAG-H, Dean's office, Health, Medicine, Nursing & Behavioural Sciences, Burwood campus by **Monday 17th November, 2008** or when the project is completed.

Good luck with the project!

pp

Steven Sawyer
Secretary
HEAG-H

cc Melissa Weinberg

APPENDIX C:

PLAIN LANGUAGE STATEMENT, QUESTIONNAIRE & ETHICS - STUDY 2

DEAKIN UNIVERSITY

PLAIN LANGUAGE STATEMENT AND CONSENT FORM

TO: Participants

Plain Language Statement

Date: 12th May 2009

Full Project Title: The transference of core affect across generations

Principal Researcher: Prof Bob Cummins

Student Researcher: Melissa Weinberg

The enclosed Plain Language Statement and Consent Form are 5 pages long. Please make sure you have all the pages.

8. Your Consent

You are invited to take part in this research project. This project is a continuation of the study entitled "Subjective wellbeing, social capital, and identity in the Australian Jewish community" which you may have participated in last year.

This Plain Language Statement contains detailed information about the research project. Its purpose is to explain to you as openly and clearly as possible all the procedures involved in this project so that you can make a fully informed decision whether you are going to participate.

Please read this Plain Language Statement carefully. Feel free to ask questions about any information in the document. You may also wish to discuss the project with a relative or friend or your local health worker. Feel free to do this.

Once you understand what the project is about and if you agree to take part in it, you will be asked to sign the Consent Form. By signing the Consent Form, you indicate that you understand the information and that you give your consent to participate in the research project.

You will be given a copy of the Plain Language Statement and Consent Form to keep as a record.

9. Purpose and Background

The purpose of this project is to explore how parents' experiences of trauma can be passed down to their children. The research is being conducted as part of a PhD (Psychology) thesis.

A total of at least 300 people will participate in this project.

Previous research has shown that children who have two parents who were survivors of the Holocaust may be particularly vulnerable to report lower wellbeing. The current study aims to further explore this finding, by investigating the modes by which trauma can be transmitted across generations.

You are invited to participate in this research project because you are Jewish, over 18, and living in Australia. This document has been forwarded to you by an organisation to which you belong on my behalf, and as such I retain no information regarding your address or other personal details.

The results of this research may be used to help researcher Melissa Weinberg to obtain a Doctor of Philosophy (PhD) degree.

10. Procedures

Participation in this project will involve completion of a questionnaire, either online or in hard-copy format. The questionnaire will take no more than 10-15 minutes to complete. The questionnaire involves items relating to personal wellbeing, affect, attachment styles, post-traumatic stress, social desirability, and personality, as well as some demographic items (though nothing that will allow you to be identified). You will be encouraged to complete all items on the questionnaire, though you may omit some items if you do not wish to respond to them. If you wish to participate you may complete the online questionnaire at any time, and upon completion you will be requested to click on a button to submit it to the researcher. If you wish to complete the hard-copy version of the questionnaire, you will be requested to submit it in a provided reply-paid envelope to the researcher upon completion.

11. Possible Benefits

Although the research findings have implications for the community as a whole**,** we cannot guarantee or promise that you will receive any direct personal benefits from this project.

12. Possible Risks

There are no foreseeable risks for participating in this study as you will simply be required to complete questionnaire items that assess your personal feelings, opinions and beliefs. However, in the unlikely event that you experience any form of discomfort or distress through participating in this study, you may call Lifeline (24hr crisis line) 131 114, or Jewish Care (03) 8517 5999. You may choose to withdraw from the study at any time prior to submitting the questionnaire without any effects occurring for you.

13. Privacy, Confidentiality and Disclosure of Information

You will be instructed not to write your name or any other identifying details on the questionnaire, so as to ensure strict anonymity and confidentiality. Only aggregated data will be reported in a thesis and by submitting the questionnaire you are agreeing to allow your results to be used to form aggregate data.

The information collected during the study will be stored in hard-copy and computer files in secure storage for a minimum of 6 years, in accordance with Deakin University guidelines. Following this period the hard-copy files will be destroyed and the computer files deleted. A report of the study may be submitted for publication to a psychological journal, however individual participants will not be identifiable in such a report as only aggregate data will be reported.

14. Results of Project

You are encouraged to contact the researcher at the completion of the study to be informed of the aggregate research findings. Aggregate results will be published in a thesis and it is anticipated that they will also form part of a publication in a psychology journal.

15. Participation is Voluntary

Participation in any research project is voluntary. **If you do not wish to take part you are not obliged to.** If you decide to take part and later change your mind, you are free to withdraw from the project at any stage before you submit your completed questionnaire. After you submit your questionnaire it will not be possible to withdraw from participation as there will be no way of identifying which questionnaire is yours. Any information obtained from you to date will not be used and will be destroyed.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your relationship with Deakin University or with the organisation through which you have been invited to participate.

Before you make your decision, a member of the research team will be available to answer any questions you have about the research project. You can ask for any information you want. Sign the Consent Form only after you have had a chance to ask your questions and have received satisfactory answers.

If you decide to withdraw from this project, please do not submit your questionnaire.

16. Ethical Guidelines

This project will be carried out according to the *National Statement on Ethical Conduct in Human Research* (2007) produced by the National Health and Medical Research Council of Australia. This statement has been developed to protect the interests of people who agree to participate in human research studies.

The ethics aspects of this research project have been approved by the Human Research Ethics Committee of Deakin University.

17. Complaints

If you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact:

Secretary HEAG-H, Dean's Office, Faculty of Health, Medicine, Nursing and Behavioural Sciences, 221 Burwood Hwy, Burwood, VIC, 3125, Telephone (03) 9251 7174, Email hmnbs-research@deakin.edu.au

Please quote project number HEAG-H 85/09.

17.1. Reimbursement for your costs

You will not be paid for your participation in this project.

17.2. Further Information, Queries or Any Problems

If you require further information, wish to withdraw your participation or if you have any problems concerning this project (for example, any side effects), you can contact the principal researcher Prof. Bob Cummins or the student researcher, Melissa Weinberg. The researchers responsible for this project are:

Melissa Weinberg (student researcher), Deakin University, Faculty of Health, Medicine, Nursing, and Behavioural Sciences, School of Psychology, 221 Burwood Hwy, Burwood, 3125. Ph: 9251 7235. For after hours contact please call 0402 039 491

Professor Bob Cummins (principal researcher), Deakin University, Faculty of Health, Medicine, Nursing, and Behavioural Sciences, School of Psychology, 221 Burwood Hwy, Burwood, 3125. Ph: 9244 6845.

The Australian Jewish Wellbeing Inventory—Part 2

DEAKIN UNIVERSITY AUSTRALIA

Thank you for your involvement in this study. This is a confidential and strictly anonymous questionnaire so please ensure that you do not write your name, or any other comments that might make you identifiable. Your completion and return of the questionnaire indicates your consent to participate, as explained in the plain language statement enclosed. Please only complete the questionnaire if you are Jewish and you are over 18 years old.

Please ensure that you answer all questions thoughtfully and honestly. When you have completed the questionnaire please enclose it in the reply paid, pre-addressed envelope provided and return it to Deakin University.

SECTION A PERSONAL WELLBEING

Please circle the number which corresponds to how satisfied you feel with your life. 0 means you feel completely dissatisfied, 10 means you feel completely satisfied. And the middle of the scale is 5, which means you feel neither satisfied nor dissatisfied.

Thinking about your own life and personal circumstances, how satisfied are you with...	Completely Dissatisfied				Neutral					Completely Satisfied
1 your life as a whole?	0	1	2	3	4	5	6	7	8	9	10
2 your standard of living?	0	1	2	3	4	5	6	7	8	9	10
3 your health?	0	1	2	3	4	5	6	7	8	9	10
4 what you are currently achieving in life?	0	1	2	3	4	5	6	7	8	9	10
5 your personal relationships?	0	1	2	3	4	5	6	7	8	9	10
6 how safe you feel?	0	1	2	3	4	5	6	7	8	9	10
7 feeling part of your community?	0	1	2	3	4	5	6	7	8	9	10
8 your future security?	0	1	2	3	4	5	6	7	8	9	10
9 your spirituality or religion?	0	1	2	3	4	5	6	7	8	9	10

SECTION B HOW YOU GENERALLY FEEL

Please indicate how you feel when you think about your life in general.
This scale ranges from 0="Not at all" to 10="Extremely".

	Not At All									Extremely
10 How **happy** do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
11 How **content** do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
12 How **alert** do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
13 How **excited** do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
14 How **active** do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
15 How **unhappy** do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
16 How **discontent** do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
17 How **sleepy** do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
18 How **quiet** do you generally feel?	0	1	2	3	4	5	6	7	8	9	10

SECTION C HOW YOU SEE YOURSELF

Here are a number of personality traits that may or may not apply to you. Please circle the number next to each statement which indicates the extent to which you agree or disagree with that statement. **I see myself as...**

	Strongly Disagree				Neutral					Strongly Agree
19 Dependable	0	1	2	3	4	5	6	7	8	9	10
20 Self-disciplined	0	1	2	3	4	5	6	7	8	9	10
21 Anxious	0	1	2	3	4	5	6	7	8	9	10
22 Easily upset	0	1	2	3	4	5	6	7	8	9	10
23 Open to new experiences	0	1	2	3	4	5	6	7	8	9	10
24 Complex	0	1	2	3	4	5	6	7	8	9	10
25 Reserved	0	1	2	3	4	5	6	7	8	9	10

SECTION H GENERAL FEELINGS

Please read each statement and indicate how much that statement applied to you over the past week.	Did not apply to me at all									Applied to me most of the time
87 I found it hard to wind down	0	1	2	3	4	5	6	7	8	9	10
88 I was aware of dryness in my mouth	0	1	2	3	4	5	6	7	8	9	10
89 I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3	4	5	6	7	8	9	10
90 I tended to over-react to situations	0	1	2	3	4	5	6	7	8	9	10
91 I experienced trembling (e.g. in the hands)	0	1	2	3	4	5	6	7	8	9	10
92 I felt that I was using a lot of nervous energy	0	1	2	3	4	5	6	7	8	9	10
93 I was worried about situations in which I might panic and make a fool of myself	0	1	2	3	4	5	6	7	8	9	10
94 I found myself getting agitated	0	1	2	3	4	5	6	7	8	9	10
95 I found it difficult to relax	0	1	2	3	4	5	6	7	8	9	10
96 I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3	4	5	6	7	8	9	10
97 I felt I was close to panic	0	1	2	3	4	5	6	7	8	9	10
98 I felt that I was rather touchy	0	1	2	3	4	5	6	7	8	9	10
99 I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	0	1	2	3	4	5	6	7	8	9	10
100 I felt scared without any good reason	0	1	2	3	4	5	6	7	8	9	10

SECTION I DEMOGRAPHIC INFORMATION

101 Your gender
☐ Male ☐ Female

102 Your age

103 Your postcode

104 Please indicate which of the following categories apply to you at the present time.
☐ Never married ☐ Separated but not divorced ☐ Married
☐ Divorced ☐ De facto or living together ☐ Widowed

105 Please indicate your household's total annual income before tax.
☐ Less than $15,000 ☐ $15,000 to $30,000 ☐ $31,000 to $60,000 ☐ $61,000 to $100,000
☐ $101,000 to $150,000 ☐ $151,000 to $250,000 ☐ $251,000 to $500,000 ☐ More than $500,000

106 In which country were you born?

107 Are you, or are/were any of your parents or grandparents survivors of the Holocaust (where a "Holocaust survivor" is defined as a Jew who lived at any time within a Nazi-occupied or Nazi-ruled European country during World War II)?
☐ Yes ☐ No

108 If yes, please indicate who:
☐ Yourself ☐ Your Mother ☐ Your Father ☐ Maternal grandmother
☐ Maternal grandfather ☐ Paternal grandmother ☐ Paternal grandfather

109 Please indicate which of the following categories best describes your religious attitude:
☐ Ultra Orthodox ☐ Modern Orthodox ☐ Traditional/Conservative ☐ Reform/Liberal

Other (please specify)

Please seal your completed questionnaire in the reply paid envelope provided and return to Deakin University.
Your participation in this study is greatly appreciated. Thank you.

Section C continued

I see myself as...

		Strongly Disagree					Neutral					Strongly Agree
26	Quiet	0	1	2	3	4	5	6	7	8	9	10
27	Sympathetic	0	1	2	3	4	5	6	7	8	9	10
28	Warm	0	1	2	3	4	5	6	7	8	9	10
29	Disorganised	0	1	2	3	4	5	6	7	8	9	10
30	Calm	0	1	2	3	4	5	6	7	8	9	10
31	Emotionally stable	0	1	2	3	4	5	6	7	8	9	10
32	Uncreative	0	1	2	3	4	5	6	7	8	9	10
33	Conscientious	0	1	2	3	4	5	6	7	8	9	10
34	Introverted	0	1	2	3	4	5	6	7	8	9	10

SECTION D MORE ABOUT YOURSELF

How much do you agree or disagree with the following statements?		Strongly Disagree					Neutral					Strongly Agree
35	I feel that I'm a person of worth, at least on an equal plane with others.	0	1	2	3	4	5	6	7	8	9	10
36	I feel that I have a number of good qualities.	0	1	2	3	4	5	6	7	8	9	10
37	I am able to do things as well as most other people.	0	1	2	3	4	5	6	7	8	9	10
38	I take a positive attitude toward myself.	0	1	2	3	4	5	6	7	8	9	10
39	On the whole, I am satisfied with myself.	0	1	2	3	4	5	6	7	8	9	10

SECTION E HOW YOU LIKE TO DO THINGS

How much do you agree or disagree with the following statements?		Strongly Disagree					Neutral					Strongly Agree
40	I like to have my meals organised and a definite time set aside for eating	0	1	2	3	4	5	6	7	8	9	10
41	I like to be able to put in long hours of work without distractions	0	1	2	3	4	5	6	7	8	9	10
42	I like to be in groups where someone else takes the lead in deciding what I am going to do	0	1	2	3	4	5	6	7	8	9	10
43	Once I start working on some assignment I like to keep working on it until it is completed	0	1	2	3	4	5	6	7	8	9	10
44	I like to have my life so arranged that things run smoothly and without any change in plans	0	1	2	3	4	5	6	7	8	9	10
45	I like to conform to custom and avoid doing things that people I respect might consider unconventional	0	1	2	3	4	5	6	7	8	9	10
46	I like to do my very best in whatever task I undertake	0	1	2	3	4	5	6	7	8	9	10
47	I would like to be recognised as an authority in some job, profession, or field of specialisation.	0	1	2	3	4	5	6	7	8	9	10

SECTION F RELATIONSHIPS WITH PARENTS

The following questions list various attitudes and behaviours of parents.
Please circle the number which best describes your MOTHER,
as you remember her in the first 16 years of your life.

My MOTHER:		Not at all like Her										Very much like Her
48	Spoke to me in a warm and friendly voice	0	1	2	3	4	5	6	7	8	9	10
49	Did not help me as much as I needed	0	1	2	3	4	5	6	7	8	9	10
50	Seemed emotionally cold to me	0	1	2	3	4	5	6	7	8	9	10
51	Appeared to understand my problems and worries	0	1	2	3	4	5	6	7	8	9	10
52	Was affectionate towards me	0	1	2	3	4	5	6	7	8	9	10

Section F continued

My MOTHER:		Not at all like Her										Very much like Her
53	Tried to control everything I did	0	1	2	3	4	5	6	7	8	9	10
54	Invaded my privacy	0	1	2	3	4	5	6	7	8	9	10
55	Tended to baby me	0	1	2	3	4	5	6	7	8	9	10
56	Did not seem to understand what I needed or wanted	0	1	2	3	4	5	6	7	8	9	10
57	Tried to make me dependent on her	0	1	2	3	4	5	6	7	8	9	10
58	Gave me as much freedom as I wanted	0	1	2	3	4	5	6	7	8	9	10
59	Was overprotective of me	0	1	2	3	4	5	6	7	8	9	10

The following questions list various attitudes and behaviours of parents.
Please circle the number which best describes your FATHER,
as you remember him in the first 16 years of your life.

My FATHER:		Not at all like Him										Very much like Him
60	Spoke to me in a warm and friendly voice	0	1	2	3	4	5	6	7	8	9	10
61	Did not help me as much as I needed	0	1	2	3	4	5	6	7	8	9	10
62	Seemed emotionally cold to me	0	1	2	3	4	5	6	7	8	9	10
63	Appeared to understand my problems and worries	0	1	2	3	4	5	6	7	8	9	10
64	Was affectionate towards me	0	1	2	3	4	5	6	7	8	9	10
65	Tried to control everything I did	0	1	2	3	4	5	6	7	8	9	10
66	Invaded my privacy	0	1	2	3	4	5	6	7	8	9	10
67	Tended to baby me	0	1	2	3	4	5	6	7	8	9	10
68	Did not seem to understand what I needed or wanted	0	1	2	3	4	5	6	7	8	9	10
69	Tried to make me dependent on him	0	1	2	3	4	5	6	7	8	9	10
70	Gave me as much freedom as I wanted	0	1	2	3	4	5	6	7	8	9	10
71	Was overprotective of me	0	1	2	3	4	5	6	7	8	9	10

SECTION G IMPACT OF THE HOLOCAUST

Below is a list of comments made by people in relation to stressful life events. Please indicate how frequently these statements are true for you when you think about the Holocaust.

		Not at all										Often
72	I think about it when I don't mean to	0	1	2	3	4	5	6	7	8	9	10
73	I avoid letting myself get upset when I think about it or are reminded of it	0	1	2	3	4	5	6	7	8	9	10
74	I try to remove it from memory	0	1	2	3	4	5	6	7	8	9	10
75	I have trouble falling asleep or staying asleep, because of pictures or thoughts about it that come into my mind	0	1	2	3	4	5	6	7	8	9	10
76	I have waves of strong feelings about it	0	1	2	3	4	5	6	7	8	9	10
77	I have dreams about it	0	1	2	3	4	5	6	7	8	9	10
78	I stay away from reminders of it	0	1	2	3	4	5	6	7	8	9	10
79	I feel as if it didn't happen or it wasn't real	0	1	2	3	4	5	6	7	8	9	10
80	I try not to talk about it	0	1	2	3	4	5	6	7	8	9	10
81	Pictures about it pop into my mind	0	1	2	3	4	5	6	7	8	9	10
82	Other things keep making me think about it	0	1	2	3	4	5	6	7	8	9	10
83	I am aware that I have a lot of feelings about it, but I don't deal with them	0	1	2	3	4	5	6	7	8	9	10
84	I try not to think about it	0	1	2	3	4	5	6	7	8	9	10
85	Any reminder brings back feelings of it	0	1	2	3	4	5	6	7	8	9	10
86	My feelings about it are kind of numb	0	1	2	3	4	5	6	7	8	9	10

DEAKIN UNIVERSITY

Human Ethics Advisory Group – Faculty of Health,
Medicine, Nursing and Behavioural Sciences

221 Burwood Highway,
Burwood Victoria 3125 Australia
Telephone +61 3 2517174
Facsimile +61 3 9251 7425
hmnbs-research@deakin.edu.au

Memorandum

To	Professor Bob Cummins. School of Psychology	Date	17 June, 2009
From	Secretary – HEAG-H Faculty of Health, Medicine, Nursing, and Behavioral Sciences		
Subject	**HEAG-H 85/09: The transference of core effect across generations.**		

Approval has been given for Professor Bob Cummins. School of Psychology, to undertake this project for a period of 3 years from 17 June 2009, with the following conditions

Plain language statement and consent form:

(i) Please include the correct complaints clause in the PLS:
If you have any complaints about any aspect of the research, the way it is being conducted or any questions about your rights as a participant then you may contact **Secretary HEAG-H, Dean's Office, Faculty of Health, Medicine, Nursing and Behavioural Sciences, 221 Burwood Hwy, Burwood, VIC 3125,** Telephone: (03) 9251 7174, Email **hmnbs-research@deakin.edu.au**

Miscellaneous:

(i) Please forward evidence of support for the research from an organisation, prior to recruiting participants through that organisation.

The approval given by the Deakin University HEAG - H is given only for the project and for the period as stated in the approval. It is your responsibility to contact the Secretary immediately should any of the following occur:

- Serious or unexpected adverse effects on the participants
- Any proposed changes in the protocol, including extensions of time
- Any events which might affect the continuing ethical acceptability of the project
- The project is discontinued before the expected date of completion
- Modifications that have been requested by other Human Research Ethics Committees

In addition you will be required to report on the progress of your project at least once every year and at the conclusion of the project. Failure to report as required will result in suspension of your approval to proceed with the project.

HEAG-H may need to audit this project as part of the requirements for monitoring set out in the National Statement on Ethical Conduct in Human Research (2007).An Annual Project Report Form can be found at http://www.deakin.edu.au/research/admin/ethics/human/forms/ which you will be required to complete in relation to this research. This should be completed and returned to the Administrative Officer to the HEAG-H, Dean's office, Health, Medicine, Nursing & Behavioural Sciences, Burwood campus by **Monday 23rd November, 2009** and when the project is completed.

Good luck with the project!

Steven Sawyer
Secretary
HEAG-H

cc Melissa Weinberg

APPENDIX D:

PLAIN LANGUAGE STATEMENT, QUESTIONNAIRE & ETHICS – STUDY 3

DEAKIN UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE
PLAIN LANGUAGE STATEMENT FOR PEOPLE RECRUITED FROM PREVIOUS WRITTEN SURVEY

Dear

Last year you participated in our on-going Australian Unity Wellbeing longitudinal project that is conducted in conjunction with Deakin University. At that time, you indicated that you would be willing to be involved in future surveys of this kind. We are writing to you now because we are conducting another follow-up study of the well-being of Australians, to identify the beliefs that maintain wellbeing. We invite you to once again be part of this study.

The research team involved is Professor Bob Cummins, Dr Kay Cook, Dr Ben Richardson and Dr Linda Byrne and Melissa Weinberg from Deakin University. Australian Unity is a partner in the project. Melissa will use part of this project for the purposes of her PhD thesis.

If you agree to be involved, we will send you a questionnaire package once a year for the next three years. The questionnaire will ask you to provide some basic demographic details, and then to answer some questions about yourself such as:

- How satisfied are you with life as a whole?
- How satisfied are you with your health?

Other questions will ask you to indicate your level of agreement with various statements, on topics such as:

- How you have been feeling this past week.
- What kind of person you are.
- Whether you have experienced any back problems

In total, the questionnaire should take you about 25 minutes to complete, once or twice each year. You will be provided with a reply paid envelope to return the completed questionnaire to Deakin University, and when you return the questionnaire we will assume you are doing so willingly. Your questionnaire will be given a code and your answers will be entered into a database for collation. The research team will not be able to identify you or your personal responses. The database will be securely stored electronically at Deakin University for 6 years, then it will be destroyed.

You are quite free to participate or not to any extent, or withdraw at any time from the study. However, as we will not be able to identify your responses if you withdraw after mailing your questionnaire, such responses will be used in the overall analysis.

If for any reason you feel distressed by anything asked in the survey, we suggest that you contact Lifeline on 13 1114

For further details of the study, please contact Professor Bob Cummins on 03 92446845 or Dr Kay Cook on 03 9244 3001.

Should you have any concerns about the conduct of this research project (ID 2006-266), please contact the Secretary, Ethics Committee, Research Services, Deakin University, 221 Burwood Highway, BURWOOD VIC 3125. Tel (03) 9251 7123 (International +61 3 9251 7123).

DEAKIN UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE
PLAIN LANGUAGE STATEMENT FOR PEOPLE RECRUITED FROM THE TELEPHONE SURVEY

Dear

Some months ago you participated in the Australian Unity Wellbeing project that is conducted by telephone in conjunction with Deakin University. At that time, you indicated that you would be willing to be involved in future surveys of this kind. We are writing to you now because we are conducting a longitudinal study of the well-being of Australians, to identify the beliefs that maintain wellbeing. We now invite you to be part of this study.

The research team involved is Professor Bob Cummins, Dr Kay Cook, Dr Ben Richardson, Dr Linda Byrne and Melissa Weinberg from Deakin University. Australian Unity is a partner in the project. Melissa will use part of this project for the purposes of her PhD thesis.

If you agree to be involved, we will send you a questionnaire package once a year for the next three years. The questionnaire will ask you to provide some basic demographic details, and then to answer some questions about yourself such as:

- How satisfied are you with life as a whole?
- How satisfied are you with your health?

Other questions will ask you to indicate your level of agreement with various statements, on topics such as:

- How you have been feeling this past week.
- What kind of person you are.
- Whether you have experienced any back problems

In total, the questionnaire should take you about 25 minutes to complete, once each year. You will be provided with a reply paid envelope to return the completed questionnaire to Deakin University, and when you return the questionnaire we will assume you are doing so willingly. Your questionnaire will be given a code and your answers will be entered into a database for collation. The research team will not be able to identify you or your personal responses. The database will be securely stored electronically at Deakin University for 6 years, then it will be destroyed.

You are quite free to participate or not to any extent, or withdraw at any time from the study. However, as we will not be able to identify your responses if you withdraw after mailing your questionnaire, such responses will be used in the overall analysis.

If for any reason you feel distressed by anything asked in the survey, we suggest that you contact Lifeline on 13 1114

For further details of the study, please contact Professor Bob Cummins on 03 92446845 or Dr Kay Cook on 03 9244 3001.

Should you have any concerns about the conduct of this research project (ID 2006-266), please contact the Secretary, Ethics Committee, Research Services, Deakin University, 221 Burwood Highway, BURWOOD VIC 3125. Tel (03) 9251 7123 (International +61 3 9251 7123).

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DEAKIN UNIVERSITY AUSTRALIA

Thank you for your involvement in this survey. This is a confidential questionnaire so please ensure that you do not write your name, or any other comments that will make you identifiable. By completing the questionnaire you are consenting to take part in this research as explained in the Plain Language Statement enclosed. The intention of this project is to investigate different aspects of life satisfaction in Australia.

Please read each question and response option carefully before answering the questions and make sure that you have provided an answer for every question.

SECTION A PERSONAL WELLBEING

Thinking about your own life and personal circumstances, please circle the number that best represents how satisfied you feel with your life.

How satisfied are you with...		Completely Dissatisfied					Neutral				Completely Satisfied
1	your life as a whole?	0	1	2	3	4	5	6	7	8	9	10
2	your standard of living?	0	1	2	3	4	5	6	7	8	9	10
3	your health?	0	1	2	3	4	5	6	7	8	9	10
4	what you are currently achieving in life?	0	1	2	3	4	5	6	7	8	9	10
5	your personal relationships?	0	1	2	3	4	5	6	7	8	9	10
6	how safe you feel?	0	1	2	3	4	5	6	7	8	9	10
7	feeling part of your community?	0	1	2	3	4	5	6	7	8	9	10
8	your future security?	0	1	2	3	4	5	6	7	8	9	10
9	your spirituality or religion?	0	1	2	3	4	5	6	7	8	9	10
	or (If you have no spiritual or religious beliefs) (na)											

SECTION B LIFE IN AUSTRALIA

How satisfied are you with...		Completely Dissatisfied					Neutral				Completely Satisfied
10	life in Australia?	0	1	2	3	4	5	6	7	8	9	10
11	the economic situation in Australia?	0	1	2	3	4	5	6	7	8	9	10
12	the state of the natural environment in Australia?	0	1	2	3	4	5	6	7	8	9	10
13	the social conditions in Australia?	0	1	2	3	4	5	6	7	8	9	10
14	government in Australia?	0	1	2	3	4	5	6	7	8	9	10
15	business in Australia?	0	1	2	3	4	5	6	7	8	9	10
16	national security in Australia?	0	1	2	3	4	5	6	7	8	9	10

SECTION C HOW YOU GENERALLY FEEL

Please indicate how each of the following describes your feelings when you think about your life in general.		Not At All										Extremely
17	How content do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
18	How happy do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
19	How alert do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
20	How unhappy do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
21	How excited do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
22	How discontent do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
23	How sleepy do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
24	How quiet do you generally feel?	0	1	2	3	4	5	6	7	8	9	10
25	How active do you generally feel?	0	1	2	3	4	5	6	7	8	9	10

SECTION J STRESS

Thinking about your life and personal circumstances, how stressed do you feel?

How stressed are you with...		Not Stressed At All										Completely Stressed
78	your standard of living?	0	1	2	3	4	5	6	7	8	9	10
79	your health?	0	1	2	3	4	5	6	7	8	9	10
80	what you are achieving in life?	0	1	2	3	4	5	6	7	8	9	10
81	your personal relationships?	0	1	2	3	4	5	6	7	8	9	10
82	how safe you feel?	0	1	2	3	4	5	6	7	8	9	10
83	feeling part of your community?	0	1	2	3	4	5	6	7	8	9	10
84	your future security?	0	1	2	3	4	5	6	7	8	9	10
85	your spirituality or religion?	0	1	2	3	4	5	6	7	8	9	10

SECTION K THE KIND OF PERSON YOU ARE

How much do you agree with the following statements?		Disagree Completely					Neutral				Agree Completely
86	I see myself as extraverted.	0	1	2	3	4	5	6	7	8	9	10
87	I see myself as enthusiastic.	0	1	2	3	4	5	6	7	8	9	10
88	I see myself as anxious.	0	1	2	3	4	5	6	7	8	9	10
89	I see myself as easily upset.	0	1	2	3	4	5	6	7	8	9	10
90	I see myself as reserved.	0	1	2	3	4	5	6	7	8	9	10
91	I see myself as quiet.	0	1	2	3	4	5	6	7	8	9	10
92	I see myself as calm.	0	1	2	3	4	5	6	7	8	9	10
93	I see myself as emotionally stable.	0	1	2	3	4	5	6	7	8	9	10

SECTION L EVENTS IN YOUR LIFE

		No Happiness										Complete Happiness
94	Thinking back on your life, what is the highest level of happiness you have ever experienced?	0	1	2	3	4	5	6	7	8	9	10

95 Has anything happened to you recently causing you to feel happier or sadder than normal? Please tick as appropriate

☐ Yes, happier ☐ Yes, sadder ☐ No — You have now completed the questionnaire.

	Very Weak										Very Strong
(If Yes) On a scale from 0 to 10, how strong would you rate this influence	0	1	2	3	4	5	6	7	8	9	10

96 Which areas of your life have been strongly influenced by this event? Please tick **all areas** that have been affected.

☐ Standard of living ☐ Relationships ☐ Achieving in life ☐ Connection to your community
☐ Health ☐ Personal safety ☐ Future security ☐ Spirituality or religion

97 Now please tick the **one single** life area that has been **most strongly affected.**

☐ Standard of living ☐ Relationships ☐ Achieving in life ☐ Connection to your community
☐ Health ☐ Personal safety ☐ Future security ☐ Spirituality or religion

Thank you for your time and participation in this survey

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SECTION D — FEELINGS ABOUT YOUR LIFE

	Please indicate how much you agree with the following statements.	Strongly Disagree 0 1 2 3 4 5 6 7 8 9 10 Strongly Agree
26	In most ways my life is close to my ideal.	
27	The conditions of my life are excellent.	
28	I am satisfied with my life.	
29	So far I have gotten the important things I want in life.	
30	If I could live my life over, I would change almost nothing.	

SECTION E — YOUR MOTHER

	The following items list various attitudes and behaviours of mothers. Please circle the number which best describes YOUR mother, as you remember her in the first 16 years of your life. My MOTHER…	Not At All Like Her 0 1 2 3 4 5 6 7 8 9 10 Very Much Like Her
31	Spoke to me in a warm and friendly voice.	
32	Did not help me as much as I needed.	
33	Seemed emotionally cold to me.	
34	Appeared to understand my problems and worries.	
35	Was affectionate towards me.	
36	Tried to control everything I did.	
37	Invaded my privacy.	
38	Tended to baby me.	
39	Did not seem to understand what I needed or wanted.	
40	Tried to make me dependent on her.	
41	Gave me as much freedom as I wanted.	
42	Was overprotective of me.	

SECTION F — OVER THE PAST WEEK

	How much did these statements apply to you over the PAST WEEK?	Not At All 0 1 2 3 4 5 6 7 8 9 10 Extremely
43	I found it hard to wind down.	
44	I was aware of dryness of my mouth.	
45	I couldn't seem to experience any positive feeling at all.	
46	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion).	
47	I found it difficult to work up the initiative to do things.	
48	I tended to over-react to situations.	
49	I experienced trembling (eg, in the hands).	
50	I felt that I was using a lot of nervous energy.	
51	I was worried about situations in which I might panic and make a fool of myself.	
52	I felt that I had nothing to look forward to.	

Section F continued

	How much did these statements apply to you over the PAST WEEK?	Not At All 0 1 2 3 4 5 6 7 8 9 10 Extremely
53	I found myself getting agitated.	
54	I found it difficult to relax.	
55	I felt down-hearted and blue.	
56	I was intolerant of anything that kept me from getting on with what I was doing.	
57	I felt I was close to panic	
58	I was unable to become enthusiastic about anything	
59	I felt I wasn't worth much as a person	
60	I felt that I was rather touchy	
61	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	
62	I felt scared without any good reason	
63	I felt that life was meaningless	

SECTION G — COPING WITH LIFE

	How much do you agree that when something bad happens...	Disagree Completely 0 1 2 3 4 5 6 7 8 9 10 Agree Completely (Neutral)
64	I ask others for information or advice.	
65	I look for different ways to improve the situation.	
66	I use my skills to overcome the problem.	
67	I remind myself that something good may come of it.	
68	I remind myself that I am better off than some others.	
69	I remember that the situation will improve if I am patient.	

SECTION H — MORE ABOUT YOURSELF

	How much do you agree with the following statements?	Disagree Completely 0 1 2 3 4 5 6 7 8 9 10 Agree Completely (Neutral)
70	On the whole, I am satisfied with myself.	
71	I feel that I have a number of good qualities.	
72	I am able to do things as well as most other people.	
73	I feel that I'm a person of worth, at least on an equal plane with others.	
74	I take a positive attitude toward myself.	

SECTION I — WHAT YOU EXPECT TO HAPPEN

	How much do you agree with the following statements?	Disagree Completely 0 1 2 3 4 5 6 7 8 9 10 Agree Completely (Neutral)
75	In uncertain times, I usually expect the best.	
76	I'm always optimistic about my future.	
77	Overall, I expect more good things to happen to me than bad	

Dear Friend of the Australian Centre on Quality of Life

Below you will find some questions that refer to your life circumstances. We know you have completed a similar set in the past, and we have these data on file, but would appreciate confirmation of your current situation.

1 Your Gender ☐ Male ☐ Female

2 Your age ☐

3 Your postcode ☐

4 Please indicate from the list who lives with you. (tick whichever boxes apply)

☐ No one, you live by yourself ☐ One or more children
☐ Your partner ☐ One or both of your parents
☐ One or more adults who are neither your partner nor your parent

5 Please indicate how many children (aged less than 18 years) live with you.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 or more

6 Please indicate which of the following categories apply to you at the present time.

☐ Never married ☐ Separated but not divorced ☐ Married
☐ Divorced ☐ De facto or living together ☐ Widowed

7 Please indicate which of the following categories best applies to you at the present time. Are you in...

☐ Full-time paid employment ☐ Full-time home or family care ☐ Full-time retired
☐ Full-time study ☐ Semi-retired ☐ Unemployed
☐ Full-time volunteer

8 Please indicate whether any of the following part-time categories applies to you at the present time. Are you...?

☐ In part-time paid employment ☐ A part-time volunteer ☐ In part-time study

9 Please indicate your household's total annual income before tax.

☐ Less than $15,000 ☐ $15,000 to $30,000 ☐ $31,000 to $60,000
☐ $61,000 to $100,000 ☐ $101,000 to $150,000 ☐ $151,000 to $250,000
☐ $251,000 to $500,000 ☐ More than $500,000

10 Please indicate your height and weight.

☐ cm ☐ kg

or

☐ feet ☐ inches ☐ stone ☐ pounds

11 Which day of the week is it today? ☐

12 Today's date is ☐

13 I completed the questionnaire at ☐ am/pm

DEAKIN UNIVERSITY

Human Ethics Research

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Memorandum

To: Prof Robert Cummins
School of Psychology

cc:

From: Deakin University Human Research Ethics Committee (DU-HREC)

Date: 23 June, 2010

Subject: 2006-266
The Australian Unity Wellbeing Index

Please quote this project number in all future communications

The modification to this project, submitted on 21/06/2010 has been approved by the committee executive on 23/06/2010.

Approval has been given for Prof Robert Cummins, School of Psychology, to continue this project as modified to 10/01/2011.

The approval given by the Deakin University Human Research Ethics Committee is given only for the project and for the period as stated in the approval. It is your responsibility to contact the Human Research Ethics Unit immediately should any of the following occur:

- Serious or unexpected adverse effects on the participants
- Any proposed changes in the protocol, including extensions of time.
- Any events which might affect the continuing ethical acceptability of the project.
- The project is discontinued before the expected date of completion.
- Modifications are requested by other HREC's.

In addition you will be required to report on the progress of your project at least once every year and at the conclusion of the project. Failure to report as required will result in suspension of your approval to proceed with the project.

DU-HREC may need to audit this project as part of the requirements for monitoring set out in the National Statement on Ethical Conduct in Human Research (2007).

Human Research Ethics Unit
research-ethics@deakin.edu.au
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