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Gerlach, Nanette

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PERSPECTIVES ON CONCEPTUALISATION AND LIVED EXPERIENCE OF INTROVERSION

Submitted by

Nanette Gerlach MAPS FCCLP
Master of Psychology (Health) (Swinburne), Postgrad Diploma Psychology (Monash), Graduate Diploma Education (Adult Education) (Alberta), Bachelor of Education (Alberta), Bachelor of Arts (Alberta)

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DECLARATION

This thesis contains no material that has been extracted in whole or in part from a thesis that I have submitted towards the award of any other degree or diploma in any other tertiary institution.

No other person's work has been used without due acknowledgment in the main text of the thesis.

All research procedures reported in the thesis received the approval of the relevant Ethics/Safety Committees (where required).

Signed:

Nanette Gerlach

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LIST OF TABLES

ABSTRACT

The extraversion-introversion domain is consistently recognised by researchers as a primary characteristic of personality. Even so, within the scientific field there are a range of theories and conceptualisations of introversion. In addition, a discrepancy is evident between scientific and lay conceptualisations of introversion. While the currently dominant scientific understanding of personality rests on a largely linguistic base, informed by factor analyses of descriptive words, contemporary lay definitions tend to be informed by individual experience. The mixed-methods program of research reported in this thesis, involving three studies, aimed to clarify how lay people conceptualise and experience introversion. For Study 1 a qualitative approach was used to explore 87 lay participants' understandings of introversion. These participants were recruited via email and snowball sampling using Facebook, and were invited to respond to an online questionnaire in which open-ended questions asked how they would describe an introvert, and about their perception of positive and less positive aspects of an introvert. Their free form, written responses were analysed using thematic content analysis. A number of major themes, each of which was formed from sub-themes, emerged relating to introverts' behaviours, outcomes of such behaviour, and reasons for introverted behaviour. Subsequently, Study 2, involved a quantitative investigation as to whether Study 1 participants' identification as introverted, ambiverted or extraverted influenced the themes that emerged from their descriptions of introverts. Chi-squared analyses were conducted on the themes that had emerged in the first study in order to explore between group differences. Results of these analyses in Study 2 indicated that extraverts less frequently identified Spend Time Alone as a characteristic of introverted people in their descriptions than would be expected if self-identified personality was not related to the descriptions. Conversely, introverts included Spend Time Alone more frequently than expected. In addition, extraverts more frequently included references to

introverts being Quiet in their descriptions, and introverts included Quiet descriptors less frequently than expected by chance. Identifying as ambiverted did not appear to influence the descriptors used to describe an introvert. Study 2 results also indicated that participants used significantly more negatively valanced words to describe introversion than positively valanced words and this was similarly evident across introverts, ambiverts and extraverts. Finally, Study 3, an in-depth qualitative investigation, explored the lived experience of self-identified introverts. A multiple case sampling approach was used to select 10 participants who provided written responses to open-ended, comprehensive questions online. The domains of inquiry related to key aspects of psychosocial functioning in their day-to-day life, namely self-identification as introverted; education, occupation and recreation; being alone, being social and being romantic; and the nature of tiring days and recovery. Inductive thematic analysis revealed emergent themes within and across domains. Analysis of patterns of themes that recurred across multiple domains of inquiry identified 13 superordinate themes, relating to interpersonal experiences, the importance of comfort and familiarity, awareness of others' expectation and needs, the importance of alone time, preference for small numbers of people, doing what comes naturally, enthusiasm and passion, acting extraverted, being overstimulated, depletion, self-reliance, attitude towards attention, and quietude. The findings of this program of research indicate that while there are some areas of consensus regarding conceptualisations of introversion and the introvert experience, further efforts are needed to develop additional clarity and agreement across both lay and scientific communities as to what the term introversion represents.

CHAPTER 1

OVERVIEW OF THE THESIS

1.1 Rationale Underlying the Thesis

Introversion has long been recognised as a key personality trait that has implications for wellbeing and psychosocial functioning. However, the characteristics of introversion have not always been agreed upon. Several books published for lay readers have focussed on the nature of introversion. The conceptualisations of introversion in such books (e.g.: Cain, 2012; Helgoe, 2008; Laney, 2002) have tended to differ from those designated by the current dominant scientific definitions in the personality psychology literature (e.g.: Costa & McCrae, 1992; DeYoung et al., 2007; Lee & Ashton, 2018). Lay authors of introversion have tended to define introversion in terms of preference and energy. For example, Helgoe wrote that:

> introversion is defined as a *preference*. Introverts generally prefer a rich inner life to an expansive social life; we would rather talk intimately with a close friend than share stories with a group; and we prefer to develop our ideas internally rather than interactively" (Helgoe, 2008, p. 4).

This definition is largely in line with Jung's (1971/1923) landmark conceptualisation of introversion. However, unlike lay views, current scientific models of personality generally differ from Jung's model.

Since Jung's time, scientific models of personality have moved away from Jung's typology. Personality frameworks currently dominant in scientific psychology consider introversion to be the low end of the dimension of extraversion, with the middle range of this dimension often referred to as 'ambiversion' (Cohen, & Schmidt, 1979). There is also variation across scientific conceptualisations of the extraversion-introversion dimension. A review of models of extraversion by Smillie et al. (2018) revealed that scientific definitions

of introversion conceptualise this trait in a range of ways, including low assertiveness and enthusiasm (e.g.: DeYoung et al., 2007), and low sociability (e.g.: Costa, Jr. & McCrae, 1992; Lee & Ashton, 2018) appearing commonly across a range of authors.

Lay writers have tended to assert that scientific definitions are inaccurate or incomplete. Given the differences in conceptualisation, and taking into account that the term introversion is used frequently in both scientific and lay spheres, further clarification of how to most usefully define introversion is needed. As noted by Boag (2015), it is important to be clear regarding what it is that is being considered when describing, researching and assessing personality. In the case of introversion, evidence of misunderstanding and confusion as to its nature, indicates a clear need for new approaches to deepen how this aspect of personality is understood and conceptualised.

A return to qualitative investigation of the lived experience of introverts may facilitate further understanding of introversion and could provide an opportunity to gain new data which may help to elucidate why contradictions exist between lay and scientific definitions, and to identify what gaps may exist in current conceptualisations of introversion. The aim of this thesis was to examine lay and scientific perspectives of introversion and to consider how these relate to each other and to the lived experience of introversion.

1.2 Aims of the Thesis

This thesis reports on an empirical examination of lay conceptualisations and the lived experience of introversion. A mixed method design was used in this research over two phases of research comprising three studies.

The first phase focussed on investigating how lay people conceptualise and describe introversion. There were two studies in this phase. The first study was a qualitative study in which participants were invited to provide descriptions of an introvert. The second study

sought to test whether participants' self-identification of introversion or extraversion was related to the terms they used to describe introversion, and the positive or negative valence of such descriptors.

The second phase of the research focussed on an exploration of the introvert experience and comprised a third study. This third study involved a qualitative exploration of self-identified introverts' lived experience across several broad domains of psychosocial functioning.

1.3 Structure of the Thesis

This thesis consists of fourteen chapters, beginning with this brief introductory chapter (Chapter 1). The following chapter (Chapter 2) is a review of theories and research regarding the nature of introversion, including consideration of scientific and lay publications, which gives rise to several research questions and research aims articulated at the end of the chapter. Chapter 3 of this thesis provides the rationale for, and overview of, the overall research methodology designed to investigate the research questions. Chapters 4 and 5 describe the first phase (Phase I) of the research which focussed on lay conceptualisations of introversion. Chapter 4 presents Study 1 of this thesis which was a qualitative exploration of lay conceptualisations of introversion. Chapter 5 outlines Study 2 of the research, which was a quantitative investigation of the relationship between participants' self-identified introversion, ambiversion, or extraversion and the themes evident in their descriptions of introversion. Relationships between this aspect of personality and the positive or negative valence of descriptors were also explored in Study 2.

The second phase of the research (Phase II) which comprised Study 3, a qualitative investigation of the lived experience of introverts across key domains of psychosocial functioning, is presented in Chapters 6 to 12. Chapter 6 comprises a review of literature

related to introversion and psychosocial functioning which provides a background to the domains of inquiry for the qualitative exploration of introversion. The subsequent chapter, Chapter 7, describes the methodology for Study 3, while Chapters 8 to 12 present its findings. Each of these chapters include findings relevant to one or more domains of inquiry, which relate to spheres of psychosocial functioning. Chapter 8 focusses on findings related to domains of inquiry exploring self-identification of introversion, including acting extraverted and family of origin. Chapter 9 presents findings regarding domains of inquiry regarding education, occupation and recreation. Chapter 10 outlines the findings that emerged in relation to domains of inquiry focussing on being alone, being social and being romantic. The next chapter (Chapter 11) covers the findings related to the final domain of inquiry, that of tiring experiences. Emerging themes that recurred across multiple domains of inquiry are then outlined in Chapter 12.

Chapter 13 presents an integrative discussion related to all three studies of the research. The final chapter (Chapter 14) comprises the integrative summary and conclusion of the thesis. The implications of the findings of the research are also found in this final chapter.

CHAPTER 2

THEORIES AND SCIENTIFIC STUDY OF INTROVERSION

2.1 Introduction

According to Rothbart (2007), knowledge of temperament theory and research is key to developing an understanding of individual variations in personality. Temperament refers to aspects of behaviour, emotions, physiology, arousal, reactions and self-regulation that are linked to genetics (Kagan, 2000; Rothbart, 2007). These inherited, physiologically based traits appear early in life. The combination of these traits, together with the environments a person encounters from birth onwards, results in the unique blends of characteristics which form an individual's personality (Kagan, 2001).

This chapter details important current and historical theories of personality, with a particular focus on introversion. Differences and similarities across these theories are considered. Research findings relating to biopsychosocial implications of introversion are also reviewed. In addition to providing an overview of academic literature, notable lay writing about introversion is included in this overview. The impact of similarities and differences between academic and lay concepts of introversion will be discussed.

2.2 Conceptualisations of Personality

Similarities in enduring patterns of intellectual, emotional and behavioural characteristics have been the focus of philosophical and scientific writing since the time of the ancient Greeks. According to Jung, (1923/1971) "every individual has his accustomed way of making decisions and dealing with difficulties" (p. 530). This individual way of acting and reacting is largely determined by one's personality. Personality can be defined as a set of stable characteristics which combine in different ways across individuals, and result in

predictable behavioural, physiological, cognitive and emotional actions and reactions (Pervin & John, 1997). Millon and Davis (1996) also included persistent patterns of relating to others and of coping with challenges as aspects of a person's personality. Although the importance of consideration of context and particular individual factors has consistently been emphasised by personality researchers (Allport, 1966; Boag, 2015; Uher, 2013), the need for empirically supported understandings of personality is also vital (Eysenck, 1981).

Through psychological research in this area, particular patterns of characteristics have come to be identified and labelled. Particular groupings of characteristics and patterns tend to co-occur and can be considered a personality trait. While some authors, including Myers and Myers (1998), have proposed that sets of traits combine to form personality types, the dominant perspective in current academic literature is that traits are bipolar dimensions, such as introversion-extraversion, along which people differ by degree. Some aspects of personality traits may be considered adaptive, facilitating wellbeing and social connectedness (e.g.: Wilt et al., 2012; Greene et al., 2020), while pathological aspects have also been identified. There has been an increasing trend in the literature to consider personality as a continuum with disordered personality being extreme, maladaptive intensification of normal personality traits (McWilliams, 1994; Parker & Barrett, 2000; Livesley & Jang, 2005; Alwin, et al., 2006; Paris, 2008). Maladaptive extremes of personality, labelled as personality disorders, can be described as characterised by

> severe disturbances in the personality and behavioural tendencies of the individual […] usually involving several areas of the personality; nearly always associated with considerable personal distress and social disruption; and usually manifest since childhood or adolescence and continuing throughout adulthood. (ICD-10, F60, accessed 11:50am, 17/03/21).

It is clear that there are personality characteristics that predict both positive and negative life outcomes (Paris, 2004; Alwin, et al., 2006), and that personality phenomena are therefore of clinical interest. Increased understanding of key aspects of personality is important in order to facilitate biopsychosocial health and wellbeing. In addition, such understanding can enhance the design and appropriate implementation of effective prevention of personality related pathology (such as personality disorders), and early intervention and treatment programs. While there continues to be some debate as to the number of groupings worthy of consideration in personality research, one of the most consistently recognised dimensions of personality is that which includes introversion.

2.3 Conceptualisations of Introversion

Introversion is a characteristic of personality which has been identified consistently over time as playing a central role in human functioning. The online Oxford Dictionary of English (Oxford University Press, n.d.) defines an introvert as "a shy, reticent person". The Oxford Dictionary's definition for the term introvert as used in psychology is "a person predominantly concerned with their own thoughts and feelings rather than with external things". The disparity of these definitions within the same source is illustrative of a key challenge for those interested in and working in the field of personality research – that of terminology and conceptualisation.

The word introversion has been used as a label for aspects of personality since the early twentieth century (e.g.: Jung, 1913/1971). The particular nature of introversion and its composite characteristics have been the focus of attention in academic literature since that time. Many authors, including Jung (1923/1971), Cattell (1956), Eysenck & Eysenck, (1967), Gray (1970) and DeYoung (2015), have produced peer reviewed publications defining and describing introversion as a key component of personality. While there are some areas of

agreement in the scientific literature as to the nature of introversion, there are also important differences. Lack of clarity regarding the conceptualisation of introversion has implications for research and communication about this trait, and may also impair attitudes towards and understanding of introversion.

The debate regarding of the nature of introversion is further complicated by differences between scientific and lay usage of the term. The word introversion is used by lay people to describe personality with a greater frequency than are other personality labels (neuroticism, reinforcement sensitivity etc) found in academic writing. This lay use has added further complexity to attempts to define introversion. Lay publications focussing on introversion have gained increasing attention, and in them authors have sought to describe introversion in depth, suggesting a gap between scientific and lay understandings of introversion. This chapter selectively reviews conceptualisations of introversion in academic and lay literature. Two authors, Kaufman and Little, have published in both scientific journals and lay literature, and therefore, references to particular works of theirs may appear as relevant in discussion of scientific and lay conceptualisations of introversion.

2.3.1 Scientific Conceptualisations of Introversion

In scientific writing, a variety of ways of conceptualising introversion can be grouped under three broad umbrellas. The first set of conceptualisations is focus on an inward orientation focussed on subjective experience. The second group emphasises lexical description of observable behaviour, and the third set of theories highlight biological aspects that may contribute to introversion.

2.3.1.1 Internal Orientation and Subjective Experience

One subset of literature focussing on introversion includes descriptions of subjective experience and an inward focus that can differ depending on a person's level of introversion. Early authors who considered introversion in this way were Jung and Rorschach.

2.3.1.1.1 Jung. According to Jung (1923/1971), efforts to categorise personality types have necessarily been developed by using external observations to develop inferences regarding internal characteristics. While he acknowledged this as an important starting point, Jung highlighted that the next step is to further develop knowledge of personality types by paying further attention to the inner experiences/characteristics of individuals. Jung first referred to the inward focus of psychic energy as "introverted" in 1910. While at this point he associated introversion with neurosis (and extraversion with psychosis), Jung later came to conclude that there were pathological expressions of introversion and extraversion, which he termed regressive introversion and regressive extraversion (Jung, 1913/1971). Freud (1917/1973), on the other hand, clearly linked introversion to neurosis. The tendency to view introversion negatively that was evident so early has persisted over time. This is in spite of the fact that Jung revised and refined his theory of personality and introversion. He later considered the pathological manifestation (neurosis) was an extreme version of one possible characteristic of normal personality (Jung, 1913/1971), a view that other authors have since echoed (e.g.: Livesley & Jang, 2005).

Jung reviewed previous authors' efforts to understand and describe personality characteristics and combined his resulting conclusions with clinical observations to develop his own personality theory. In this theory, a key aspect that differentiates people is their extraverted or introverted attitude. Jung (1923/1971) described introversion as the tendency to turn attention and psychic energy toward the subjective, internal world of thoughts and ideas, rather than outwards toward the objective, social world. He considered introversion

and extraversion to be two ends of a continuum. He wrote that, while most people have the capacity to perform at many points along the introversion-extraversion continuum, the majority of individuals have a clearly evident preference for operating predominantly in one mode or the other. Jung also suggested that spending prolonged periods operating counter to one's preferred disposition would have both physical and psychological consequences for the individual (Jung, 1923/1971). This supposition has been supported by recent research from Jacques-Hamilton and colleagues (2019). They reported that acting counter to an introverted disposition could result in increased fatigue and negative affect, as well as feelings of dissonance related to not being authentic (Jacques-Hamilton, et al., 2019). This confirmed Jung's conclusion that acting counter to one's given tendency would lead to physical exhaustion and psychological distress. Jung stated that neurosis would be the result of "falsification of type" (1923/1971, p.332), and he wrote that such neurosis would only be resolved by a return to one's natural disposition (in this case introversion). The impact of acting counter to one's introverted personality reflects the importance of this aspect of personality. While Jung also described other personality characteristics (Jung 1923/1971), he considered the introversion / extraversion preference to underlie and influence those other characteristics. In Jung's view introversion is an inward orientation that is primary in a person's overall personality.

2.3.1.1.2 Rorschach. Rorschach (1942/1975) also considered introversion a fundamental aspect of personality. He stated explicitly that in using this term he was referring not to introversion as described by Jung at that time, but rather to the lay use of the term "introversion" evident early in the 20th century. Rorschach described the introverted person as someone "who is turned in upon himself" (p.82). He stated that turning inwards is a common human characteristic which has a range of variations in manifestation, duration and impact on functioning.

Rorschach differentiated between “introversive” – a normal, adaptable process of turning inward, and “introverted” - a pathological, inflexible state of being turned in to oneself. He stated that introversion and extraversion are not opposite, but rather distinct, dissimilar characteristics. Furthermore, he noted that both people with introversive tendencies and those with extratensive tendencies can function well depending on how they develop and adapt. Rorschach’s recognition of introversion as not necessarily being pathological or detrimental is important and presages an ongoing tension in the conceptualisation of this trait in both clinical and lay domains.

2.3.1.2 Lexical Approaches to Categorising Observable Behaviour Associated with Introversion

Lexical approaches have a long history. Galton (1884/1949) wrote of attempting to gain a sense of how many different personality characteristics there were by counting words in a well-known thesaurus. He identified 1000 words. Revelle (2014) suggested this effort by Galton could be considered the first to test a lexical hypothesis of personality description. Since then, others such as Allport, Cattell, Goldberg, Costa and McCrae, and De Young have continued to develop lexical approaches to personality conceptualisation.

2.3.1.2.1 Allport. Allport’s view of introversion considered both subjective inward experience and observable characteristics as described in language. Similar to Rorschach and Cattell (see below), Allport (1921) noted that in personality theory and research, lay usage of terminology created challenges for scientists attempting to clarify descriptions and definitions of personality. Allport (1927) differentiated between objectively observable behaviours, which he considered to be key aspects of personality traits, and temperament, which he considered to be a factor underlying personality along with intelligence and physique. He referred to Jung’s early description of personality and identified introversion and extraversion

to be basic aspects of personality (Allport, 1921). Allport and Allport (1921) listed "extro-introversion" in a list of traits related to self-expression. This dimension was not referring to sociability, which Allport and Allport considered to be a separate aspect of personality with several sub-traits. They described introverts as inwardly oriented and coping with the less than ideal real world by turning to their imagination.

Allport (1921) also noted that for most personality traits (including introversion) normal and pathological presentations are aspects of the same continuum. While Allport (1921) wrote that the tendency to turn towards one's subjective inner world to be a consequence of failed adjustment, it is important to note that Allport and Allport (1921) clearly indicated that an introvert "is not always a misfit" (p.12), i.e.: not necessarily dysfunctional. They noted that identifying whether a person was actually introverted or not was not simple, since cognitive and psychological causes of reactions and behaviour cannot always be seen or confirmed. They wrote that introversion is indicated not necessarily "by the absence of overt behaviour [but rather by] the presence of rich and persistent internal responses" (p. 13). Allport and Allport acknowledged that these subjective, internal aspects are not easily accessible and are, therefore, difficult to identify. Later, Allport (1966) stated that it was also important to recognise the impact of contextual factors on behaviour and the related personality traits.

Allport and Odbert (1936) attempted to list and categorise all the trait names used to describe personality at the time. They noted that each term was a "common sense" reference to some aspect related to people's behaviour. They consider these terms to be imprecise and problematic for science. One aim of their study was to contribute a level of rigor in the selection of terms used by psychologists when considering and describing personality. In particular, Allport and Odbert stated that terms that imply evaluation or judgement "should be avoided by psychologists unless they are prepared to deal with the subject of social

judgement" (p.vii). This assumption that personality could be separated from context in some ways is in contrast to Cattell's (1943) emphasis on in-depth, multipronged consideration of individual's character. On the other hand, the emphasis on objectivity, and denial of the subjective when considering personality can be found in Cattell's approach to personality description via factor analysis of lists of traits.

2.3.1.2.2 Cattell. Cattell (1954) emphasised the importance of clear differentiation between personality terms as used in lay conversation and precise, theoretically informed scientific variables informed by clear theory. He stated that "measurement can only follow upon the correct recognition and definition of qualitative characters, i.e., upon advances in descriptive psychology" (p.559). Cattell (1956) described personality as multidimensional and considered an individual's behaviour to be evident across the surface of the "sphere" (p.81) of personality. He believed that extensive research was the best way to determine the structure of personality and that this was a prerequisite to the development of any measure of personality (Cattell, 1956). Cattell (1956) highlighted the importance of broad and comprehensive observation of behaviour and patterns in functioning across settings and time in order to find and understand the nature of psychological qualities and the bases for them. This process he called research measurement. It is once such measurement has been conducted and the resulting detailed information analysed, that meaningful factors can be identified which form the basis of relevant, accurate applied measurement. Such was the process Cattell employed to develop his understanding of the structure of human personality. Cattell and his colleagues factor analysed all adjectives used in English to describe people (Russel & Karol, 1994). Through this process, Cattell et al. (1970/1982) identified 16 primary personality factors and eight broader second level or personality factors. These eight higher order factors each involves correlated primary order factors. Introversion/Extraversion (or Invia-vs.-Exvia factor) is one such higher order or global factor (Cattell et al., 1970/1982;

Russell & Karol, 1994) and includes primary traits related to general social participation. Cattell et al. (1970/1982) described the introversion-extraversion factor as extensive and temperamental with hereditary components. Their view of introversion as being related to inhibition was similar to the theories of Eysenck (1970) and Gray (1991), but narrower than these, as Cattell et al. considered inhibition in introversion to be related specifically to aspects of social conditioning. They also seemed to indicate that low scores on this broad trait indicate a lack of development of progress (Cattell et al., 1970/1982), while they related above average scores (high extraversion) to antisocial behaviours. In this factor, primary introversion traits are reserved, serious, shy, private and self-reliant (Cattell & Mead, 2008). Cattell et al. (1970/1982) indicated that the terms Invia and Exvia clarify that this factor comprises other aspects in addition to sociability. This conceptualisation of the Introversion/Extraversion factor as broader than simply low or high sociability is similar to that of both some other key researchers, and of personality writers in the lay sphere.

In the *Handbook for the sixteen personality factor questionnaire (16PF),* for each of the factors, Cattell et al. (1970/1982) included technical names (such as Invia-vs.-Exvia), to be used by professional psychologists, and a lay term (such as Introversion-vs.-Extraversion), necessary to facilitate communication with the general public. These authors stated that while using lay terms is necessary and useful, such terms can also be problematic and may cause confusion and "may bring false associations to the layman" (Cattell et al., 1970/1982, p.15); therefore, they recommended that professionals in psychology use the scientifically defined technical terms.

2.3.1.2.3 Five Factor Model. The five-factor model emerged from efforts to systematically analyse and categorise linguistic descriptors of personality. The utility of this for identifying components of personality was elucidated by Goldberg (1981) who wrote that key characteristics which are most significant to day-to-day interpersonal interactions and

activities will be reflected in language. He further noted that the more significant a characteristic is, the more likely it is that descriptors for the characteristic will appear across multiple languages.

Over several decades, analysis and categorisation of language describing personality led to the conclusion that consistently recurring themes in personality description tended to fall into 5 domains. This view was largely based on factor analytic studies by several authors, including Norman (1963), Passini and Norman (1966) and Tupes and Christal (1961). Several authors have described the Five Factor Model, and each has included a factor labelled as extraversion or surgency. Tupes and Christal (1961) noted that their Factor I was similar to trait groupings that some authors had called Surgency, and others had called Extraversion. Traits in this factor related to being energetic, gregariousness, loquacious, forthright and happy. Norman (1963) also identified five factors in his investigation of peer ratings of personality. He named Factor I "Extraversion or Surgency" (p. 577). Introversion would be indicated by Pole B of the scales for this factor. Abbreviated descriptions for Pole B were silent, secretive, cautious, and reclusive.

Goldberg (1993) noted that even Cattell's variables were found to have five consistently identifiable factors. He emphasised that five factors had repeatedly been found across a range of studies and reviews. A factor named Extraversion/Surgency (Goldberg, 1993) was consistently identified as one of the five factors in this statistically robust model. Through a series of factor analytic studies, Goldberg (1992) identified ten descriptors of low Surgency: introverted, shy, quiet, reserved, untalkative, inhibited, withdrawn, timid, bashful and unadventurous. It is interesting to note that for Goldberg, introversion, like extraversion, is indicative of a person's level of surgency – but it is not the same thing. As noted by Kaufman (2014) had "surgency" remained as the label for this factor in the five factor model, it may have reduced some aspects of confusion regarding the use of the term introversion. In

fact, in Goldberg's five factor model introversion itself is not one of the personality factors, but rather one component of surgency. Furthermore, several of the adjectives Goldberg identified as key to Surgency are indicative of shyness (timid, bashful).

Costa and McCrae (1992) stated that introversion and shyness are not the same thing. They stated that "sociability -the enjoyment of others' company" (McCrae & Costa, 1987, p. 87) is key to extraversion. By extension, not liking the company of others is the defining characteristic of introversion for McCrae and Costa. They clarified that they were not referring to introversion as described by Jung, and indicated that their conception of introversion was aligned with the lay understanding of introversion at the time. While there may continue to be disagreement as to the specifics of all 5 domains, and even suggestions that six factors may be more appropriate (e.g.: Ashton & Lee, 2001), the existence of extraversion-introversion as an essential factor is generally agreed upon. Although the nature of introversion has a range of conceptualisations in various five factor models, its importance in these models is accepted. For the most part, introversion is considered to be one pole of a bipolar extraversion factor and is therefore considered to be the opposite of extraversion in these models.

In addition to identifying the broad bipolar dimension of extraversion-introversion, it has also been also acknowledged that extraversion-introversion was further definable by subsequent, more specific characteristics (Costa & McCrae, 1992). This is also reflected in Goldberg's (1981) recommendation that, while the Five Factor Model is strongly supported, comprehensive models of personality should go beyond broad traits (e.g.: five factors) to include identification of more specific characteristics that comprise each of the broader traits. Several authors have investigated such structure for personality. DeYoung's cybernetic big five theory addresses this.

2.3.1.2.3.1 DeYoung: Cybernetic Big Five Theory (CB5T). DeYoung (2015) described personality traits as including descriptions of typical aspects of emotions, motivation, thought and behaviour, as well as causal psychobiological cybernetic mechanisms of those aspects. The term "cybernetic mechanisms" refers to systems related to self-regulation and the pursuing of goals. It is important to note that, according to this theory, traits are considered to be descriptive, not explanatory. In addition, DeYoung (2015) noted that, while a particular trait of a person's personality is indicative of their most likely way of being, levels of that trait, and of other traits, will vary in that same person over time and across contexts. Another important feature of the CB5T definition of personality traits is traits are universal across cultures and have evolutionary significance.

The variance in expression of traits described by DeYoung (2015) occurs not only across time and context, but also in relation to their co-occurrence within a hierarchical structure of personality. DeYoung wrote that:

> Although the lower-level traits grouped within a higher-level trait are correlated, they are not perfectly correlated. A high score on a higher-level trait, therefore, indicates high scores on some, but not necessarily all, of the lower-level traits to which it is related. Thus, the same score on a given trait can be achieved in substantively different ways, relying on different combinations of subtraits. (p. 35)

Therefore, a particular higher level trait can be expressed in diverse ways across different people, all of whom have strong tendencies in that same trait. It may be that this normal variation in how traits manifest contributes to challenges and possible disagreement related to the conceptualisation of higher level traits such as introversion.

Concerning introversion, DeYoung (2015) used the term Reserved or Detached for the negative pole of extraversion. Even so, DeYoung's Cybernetic Big Five theory (CB5T) (DeYoung, 2015), the extraversion-introversion domain of the five-factor model, is a second-

level trait which is a contributor (along with Openness/Intellect) to the metatrait Plasticity. There are two lower (third) level aspects contributing to extraversion-introversion. DeYoung labelled the two third level aspects contributing to introversion as Submissiveness (low assertiveness) and Unenthusiastic (low enthusiasm). Each of these third level aspects also has a number of fourth level contributors called facets. DeYoung considered Assertiveness as being largely related to being motivated by incentive rewards and the drive towards the desired, "wanted", goals. Enthusiasm is more associated with "liking" the enjoyment of attainment of rewards. According to this model, introversion is associated with being less motivated or less pleased by striving for or reaching goals. These CB5T concepts are linked to reward sensitivity theories, with rewards conceptualised as factors linked to striving for and/or reaching goals. Reward sensitivity in its own right has been explored in further depth by a number of researchers and is be discussed in more detail in section 2.3.1.3.2 below.

2.3.1.3 Biological Theories of Introversion

2.3.1.3.1 Eysenck. Eysenck (1981) noted that the extensively researched extraversion-introversion aspect of personality also had an extensive theoretical grounding which includes physical and genetic aspects. In his own work, Eysenck (1970) emphasised physiological as well as behavioural aspects of introversion. He believed that theories and findings related to psychological excitation and inhibition were important for a theory of introversion (Eysenck, 1970), claiming that the cause of introversion was a physiological predisposition to higher baseline neurological arousal.

According to Eysenck and Eysenck (1967) the reticular formation mediates higher cortical arousal in introverted people. This leads to introverts having a higher base level of arousal which results in them being more easily stimulated or overstimulated. Eysenck and Eysenck (1967) demonstrated this by measuring the amount of saliva produced in response to

a drop of lemon juice on the tongue. The relationship of the lemon test to the extraversion factor was found to be -0.74. Low scores on the extraversion scale are indicative of introversion. Therefore, according to Eysenck and Eysenck (1967), "the lemon test seems to be a pure (univocal) measure of introversion" (p. 385). More recent studies have also found evidence for the importance of the reticulo-cortical system in introversion (Johnson, et al., 1999; Kilgore, et al., 2007; Mitchell & Kumari, 2016). For example, Johnson, et al. (1999) confirmed Eysenck's theory. They used positron emission tomography to measure blood flow in participants' brains. They found that introversion was associated with higher blood flow in the frontal lobes and anterior thalamus and concluded that differences between introverts and extraverts are related to differences in the brain. This lends further strength to the theory that physiology contributes to individual differences in introversion and extraversion.

In addition to an emphasis on the physiological aetiology of introversion, Eysenck described introversion in terms of behaviours related to sociability and to impulsiveness (Eysenck & Eysenck, 1963). Furthermore, Eysenck (1970) indicated that he considered there to be two kinds of low sociability, one related to shyness and one related to introversion. An introverted person is comfortable in their own company and may prefer solitary activities or interaction with small numbers of others at a time, while a shy person may not enjoy their own company and would prefer higher levels of social interaction but feels awkward and fearful with others. The distinction between shyness and introversion continues to be important in current consideration of introversion and its measurement.

2.3.1.3.2 Gray: Reward Sensitivity. Gray's (1991) theory is based on behavioural reinforcement theories, which include an understanding that human emotion and related behaviour is conditioned through reinforcement, i.e.: reward (appetitive stimuli) and punishment (aversive stimuli). Gray posited that individual differences are related to three physiological emotion systems arising from the central nervous system. These three systems

are the behavioural inhibition system (BIS), the fight /flight system (F/FLS), and the behavioural approach system (BAS). According to Gray each of these three systems responds to particular kinds of triggers with certain kinds of behaviour. In addition, each system is associated with specific brain pathways and structures which process particular kinds of input. The BIS system is triggered by conditioned aversive stimuli which include new stimuli, stimuli related to punishment, and stimuli linked with withdrawn or withheld reward. These aversive experiences of events trigger the BIS resulting in a reduction in, or stopping of, behaviour, an incremental change in arousal, and augmented attention and resulting increase in absorption of information. Gray stated that the emotional state associated with the BIS is anxiety. He described anxiety as a condition wherein threat or uncertainty (i.e. aversive or novel stimuli) result in stopping (behavioural inhibition), looking and listening (paying attention) and getting ready to act (arousal). Similar to the BIS, aversive stimuli are the triggers for the F/FLS. However, the F/FLS is related to unconditioned stimuli rather than conditioned, the brain structures involved are different, and the response to the stimulus is not an anxious “stop, look, and listen, and get ready for action” (Gray, 1991, p.114). Gray suggested anger and terror may be emotions that are linked to this system. In F/FLS the aversive experience or event results in automatic, unconditioned behaviour aimed at defence (fight) or escape (flight). The BAS differs from both the BIS and the F/FLS in that the BAS is a response to the presence of reward or the absence/ending of punishment. The BAS is a reasonably straightforward feedback loop in which indications of possible reward or of avoidance of punishment trigger behaviour which is most likely to be effective in leading to maximum reward and minimum punishment. Gray also suggested that pleasant emotions, such as happiness, euphoria or enjoyable anticipation, may be associated with the BAS.

Gray (1991) considered personality to be a reflection of emotional tendencies and related to aspects that affect the operation of the BIS, F/FLS and BAS individually and in

interaction. While Gray noted that no one of the three systems in his model corresponds directly to a particular personality dimension, it is also evident that he considered the BIS to be highly relevant to introversion. Gray (1970, 1991) proposed that introversion is associated with increased susceptibility to fear, threat and novelty (i.e.: aversive stimuli). He also linked introversion with high anxiety (1970), the key emotion in the BIS. Gray also agreed with Eysenck (1970) that introversion is associated with higher arousal levels as compared to extraversion. Increased arousal is central to the BIS (Gray, 1991) and contributes to an introvert's susceptibility to aversive reinforcement (Gray, 1970). In turn, aversive reinforcers are more arousing than appetitive reinforcers which means people sensitive to aversive reinforcement, as Gray (1991) indicated introverts to be, will have higher arousal levels. This dynamic contributes to the balance between the BIS and BAS being weighted toward BIS in those who are more introverted.

2.3.1.4. Summary of Key Aspects of Scientific Definitions

This review of scientific models of introversion demonstrates that there have been varying views of this trait over time, and some diversity still remains. With the dominance of the five-factor model of personality, scientific definitions of introversion have moved away from a recognition of an inward orientation, involving an emphasis of *intra*personal aspects, to an increased focus on sociability and observable *inter*personal aspects of personality. In addition, some theories have indicated that introversion is likely to be biologically determined. It may be that considerations related to within-person characteristics of introverts, emphasised in earlier theories, could be due to adjusting to and managing higher arousal levels, increased physiological sensitivity, and avoidance of aversive overstimulation (among other aversive experiences).

2.3.2 Lay Conceptualisations of Introversion

As several of the scientific authors above have noted, and as the Oxford dictionary (2010) indicates, scientific definitions of introversion differ noticeably from lay conceptualisations. Yet at the same time, in some cases there seems to be some overlap between the two ways of defining this trait. Growing and ongoing discussion about the nature of introversion is evident in the popular media, as can been seen in blogs such as "The Introvert's Corner", websites such as "Introvert, Dear" and "The Introvert Entrepreneur", and YouTube videos such as those posted by Dr. Ramani Durvasula, Frank James, and Simon Sinek, as well as in numerous web articles such as Spark and O'Connor's (2021) article on the Conversation and Kaufman's many articles about introversion for Scientific American. In addition, several books focussing specifically on introversion, and written for the lay audience, have been published since the turn of the century (e.g. Cain, 2012; Helgoe, 2008; Laney, 2002).

Examining such literature indicates that introversion as conceptualised in lay writing has not been homogenous. Definitions differ from each other just as they differ in important ways from the scientific definitions frequently used in current psychology research. Laney (2002) referred to unchangeable temperament and, similar to Costa and McCrae (1992), clarified that introversion is not shyness. Laney stated that introversion is not being a withdrawn person. Her definition is in line with Jung's conceptualisation, highlighting gaining energy from one's inner world of "ideas, impressions, and emotions" (p. 21), and she linked this to introverts' arousal levels, i.e., the ease with which introverts can become overstimulated. Turning inwards contributes to a reduction in stimulation which allows introverts to recover and regain energy.

Helgoe (2008) also described introversion as "an inward orientation to life", involving a turning towards one's own thoughts, emotions and impressions (Helgoe says "reflecting")

as serving to facilitate a person gaining energy, in contrast to the energy expenditure that results from interaction with others. Similar to Laney, Helgoe based her definition on that of Jung and on the Myers Briggs Type Indicator (MBTI). On the other hand, compared to Laney's description, Helgoe more clearly refered to the dynamic continuum of Jung's concepts of introversion and extraversion, with both being combined in all people. While the emphasis on turning inward to gain energy may not be evident in the views of introversion currently most common in personality psychology, the bipolar dimensional view evident in Helgoe's description is more in line with current personality science.

Cain's (2012) book *Quiet* is perhaps the most well-known of the books on introversion written for a lay audience. Cain can also be found on YouTube doing a Ted Talk, and an online community was developed through her website, the Quiet Revolution. As a result, Cain's views on introversion have been disseminated broadly. Yet Cain's definition of introversion is problematic, particularly from the point of view of personality psychology. In a note at the end of the book, Cain stated:

> This book is about introversion as seen from a cultural point of view. Its primary concern is the age-old dichotomy between the "man of action" and the "man of contemplation," and how we could improve the world if only there were a greater balance of power between the two types. It focuses on the person who recognizes him-or herself somewhere in the following constellation of attributes: reflective, cerebral, bookish, unassuming, sensitive, thoughtful, serious, contemplative, subtle, introspective, inner-directed, gentle, calm, modest, solitude-seeking, shy, risk-averse, thin-skinned. (Cain, 2012, p.269)

Cain's view of introversion, like Helgoe's and Laney's, does emphasise an inward orientation, while including additional traits beyond those included by her predecessors. Cain recognised that her definition is not in line with dominant conceptualisations of introversion

currently held in personality psychology. She acknowledged that, as noted by Smillie (2015), it includes characteristics that fall under other traits in the five factor model, including openness, conscientiousness and neuroticism.

Despite differing perspectives, the lay view of introversion, as seen in the definitions provided by Helgoe, Laney and Cain, emphasised subjective aspects of introversion that tend not to be highlighted in current scientific conceptualisations.

2.3.3 Difference in Emphasis between Scientific and Lay Understandings of Introversion

According to DeYoung (2015), a theory of personality, to be complete, must explain not only how people are different from and similar to one another, but also why. In considering the conceptualisations above, how introverts behave, particularly in interpersonal spheres, has been quite well represented in scientific literature. However, the reasons for such behaviour, i.e.: the why, has been only narrowly considered and focuses on physiological aspects. Consideration of psychological, "subjectively important" (Ashton et al., 2009) aspects of introversion may be key to a comprehensive understanding of the "why" of personality, yet little has been written about this in scientific publications in recent years. Lay authors, on the other hand, have seemed to place more emphasis on the subjective, intrapersonal experience and on the why, perhaps to the detriment of more objective aspects to be considered in a full understanding of introversion. This has the potential to lead to confusion and misunderstanding when scientific knowledge or research findings are communicated to the public. Such misunderstanding could contribute to lay dismissal or disputation of information generated through scientific endeavours, and may indirectly lead to bias against introversion. These differences may contribute to communication gaps and difficulty translating scientific knowledge for the general public, reducing the usefulness and applicability of such knowledge. Further, this gap between lay and scientific views of

introversion suggests that the scientific conceptualisation may not be a good fit with the actual experience of those who consider themselves to be introverts, indicating that vital aspects of introversion have not been captured in scientific models of this trait.

2.3.4 The Call to Study Lay Conceptualisations and Experiences of Introversion

The above consideration of scientific and lay views of introversion illustrates that, in spite of the broad use of the term introversion, and notwithstanding the general assumption of a shared meaning of this term, the diversity of conceptualisations and definitions of "introversion" seems to indicate that those using this common term do not always mean the same thing. This seems to be the case in both scientific and lay spheres, and disparity is even more evident between the two groupings. Such diversity in meaning of this key concept has implications for the conduct, communication and application of research relating to this personality characteristic. Further knowledge of lay understandings and experiences of introversion is needed in order to consider what such implications may be.

2.3.5 Research Questions Arising from this Review

This review of scientific and lay publications regarding introversion gave rise to the following research questions:

1. What do lay people understand introversion to be? How is this understanding similar to, or different from scientific understandings and those of lay authors?
2. What is the lay attitude towards introversion? Is this affected by one's own level of introversion?
3. How do introverts live their lives? Do they behave in ways that scientists and lay people think they do?

4. What aspects of the lived experience of introversion are not captured by current scientific frameworks?

The aim of the research reported in this thesis was to answer the above questions by exploring lay conceptualisations and experiences of introversion.

CHAPTER 3

AIMS OF THE RESEARCH AND RATIONALE OF THE DESIGN METHODOLOGY

3.1 Aims of the Present Research

The research described in this thesis sought to extend empirical knowledge of lay conceptualisations and lived experience of introversion. It was expected that the findings gained could be compared and contrasted with existing scientific conceptualisations of introversion in order to determine how well existing models fit with the lay views of introversion thus identified and with the actual reported experiences of introverts themselves.

The present research aimed to:

1. Explore how lay people understand introversion.
2. Identify whether lay people's conceptualisations of introversion revealed a more positive or negative attitude toward introversion
3. Determine whether lay conceptualisations of, and attitudes toward, introversion were affected by one's own level of introversion
4. Explore how introverts described their day to day lives across broad domains of psychosocial functioning

The research design devised to achieve the above goals is described below.

3.2 Overall Research Design

The research was planned to be conducted in two phases. Phase I sought to elucidate current lay conceptualisations of (Study 1) and attitudes towards (Study 2) introversion. Phase II extended the focus of the research to explore the lived experience of introversion (Study 3). The findings of the three studies were then considered in the light of current scientific conceptualisations and knowledge of introversion. A mixed methods design was used, employing quantitative and qualitative methodologies.

Phase I of the research focussed on lay conceptualisations of introversion, and comprised two studies. Study 1 was of a qualitative design in order to allow for an exploration of lay understandings of introversion without pre-supposition of what such understandings would include. Study 2 was a quantitative study focussing on examining the effect of self-identified personality introversion, ambiversion and extraversion) on conceptualisations of introversion. In the second phase of the research, Study 3 was designed to explore the lived experience of introverts across a broad range of domains of psychosocial functioning. Here too the aim was to elicit participants' descriptions of their experience with minimal direction or pre-supposition from the researcher. The methodological considerations and rationale for the overall program of research are outlined below.

3.3 Background to the Overall Design of the Research

3.3.1 Mixed Methods

Using a combination of quantitative and qualitative approaches in a program of research can add breadth and depth to the understanding of the phenomena of interest. Each approach to research can balance and enhance the other when used in a mixed methods research design (Given, 2016), with each addressing limitations inherent in the other (e.g.: Zeinoun et al., 2017) by allowing the phenomena of interest to be examined through different perspectives (Shorten & Smith, 2017). This also enables the strengths of both qualitative and quantitative approaches to contribute to the research (Halcomb & Hickman, 2015). In mixed methods research, a single project combines, in a considered, intentional manner, the use of both quantitative and qualitative approaches to data collection, data analysis and interpretation of findings (Shorten & Smith, 2017). According to Halcomb and Hickman (2015) there are eight central aspects to consider when planning and engaging in mixed methods research. Namely:

1. The rationale for the use of a mixed methods research design to explore the research question
2. The philosophical underpinnings of the research project
3. Whether a convergent parallel, sequential explanatory, sequential exploratory or embedded/nested mixed methods design most appropriate to investigate the research question
4. The range of skills and knowledge needed to effectively conduct the mixed methods research project
5. The practical and resourcing implications of managing the particular mixed methods design chosen for the research project
6. Whether integration, connection or embedding procedures will be used for mixing qualitative and quantitative data
7. The methods and criteria that will be used to demonstrate rigor in the research
8. The model (segregated or integrated) and framework that will be used for reporting and dissemination of the mixed methods project

The current program of research aimed to explore how lay people conceptualise introversion including identifying similarities and differences between self-identified introverts, ambiverts and extraverts in their conceptualisation of introversion. In addition, the research sought to also explore the lived experience of self-identified introverts. A further aim was to consider the findings of the current research in comparison to scientific understandings of introversion and lay publications about introversion. In order to achieve these goals, a mixed methods approach was used which included two qualitative studies (Study1 and Study 3) and a quantitative study (Study 2).

3.2.2 Qualitative Research

While quantitative approaches to research tend to be seen as dominant in psychology, the use of qualitative research in this field is increasing (Forrester, 2010). Qualitative research involves broad study designs which enable exploration of participants' subjective ways of knowing and acknowledge contributions of researchers' subjectivity (Given, 2016). Qualitative methods are particularly useful for studying people's experiences, thoughts, attitudes, perspectives, beliefs and behaviours (Given, 2016; Forrester, 2010; Pathak, Jena, & Kalara, 2013). More specifically, qualitative methods allow for exploration of participants particular ways of understanding phenomena and their subjective experiences related to the particular area of study (Given, 2016; Pathak et al., 2013). Qualitative research involves iterative methods (Aspers & Corte, 2019) employing repetitive procedures for the collection and /or analysis of non-numerical empirical data such as words, narratives, and images (Aspers & Corte, 2019; Yoshikawa et al., 2013). The purpose of such methods is to contribute to new and enhanced understanding of the phenomenon of interest. This improved understanding contributes to academic and scientific knowledge (Aspers & Corte). Accessing and seeking to better comprehend what things mean to participants is a key strength of qualitative research (Forrester), which enables participants to be heard and their experience to be shared (Pathak, Jena, & Kiara, 2013). According to Forrester (2010), the rise of qualitative methods that emphasise focussing on language, allows for qualitative approaches that blend scientific and interpretive approaches to research. Results of research such as this are likely to possess ecological validity and, to be highly relevant in both scholarly settings and in the real world (Forrester, 2010).

Qualitative research encompasses a wide range of study designs and data collection and analysis methods which can be tailored appropriately to the research question. As noted by Braun and Clarke (2006), researchers need to ensure that "the theoretical framework and

methods match what the researcher wants to know" (p.80). In addition to developing an appropriate procedure to gather qualitative data, selecting the appropriate approach to analysing qualitative data is necessary. Table 3.1 below was developed to summarise a selection of approaches to qualitative data analysis, and indicative types of research aims that might be answered by each approach.

Table 3.1

Approaches to Qualitative Analysis.

Approach to Analysis	Brief Description of focus
Thematic Analysis	Focus on description of content. Identification of themes across cases. Data driven or theory driven (Braun & Clarke, 2006; Sullivan, et al., 2012). According to Howitt (2019) this approach can be useful for those whose research is primarily quantitative who may use thematic analysis to inform the organisation and analysis of interview data, or for the development of structured questionnaires.
Interpretive Phenomenological Analysis	Focus on understanding several participants' experience of a concept or phenomenon in detail. Description of themes case by case, informed by a phenomenological epistemology with a view to arriving at a universal portrayal of the concept of focus. (Creswell & Poth, 2018; Braun & Clarke, 2006)
Content Analysis	Focus on language – identifies concepts/categories across cases. Examines content and situational meaning of written or spoken communication. (Hsieh & Shannon, 2005). Includes conventional, directed or summative approaches to content analysis. May be theory or data driven. (NB: If summative analysis of manifest content is not accompanied by consideration of underlying meanings the analysis may be considered to be a quantitative (Hsieh & Shannon, 2005))
Discourse Analysis	Focus on what is said (and not said) and how, as well as consequences of such. Aims to comprehend the ways participants' talk and text can be used to construct different forms of reality (Forrester, 2010; Sullivan et al., 2012). Instances, which are related to themes **across cases**, are identified within cases. Iterative. Data driven. A general research question may become more specific through data analysis.
Grounded Theory	Inductive approach. Cyclical analysis - concept to concept, and case to case, comparison is used to generate theory grounded in the data (Forrester, 2010)
Narrative Analysis	Case by case analysis of participants' experiences as expressed in individuals' accounts of lived experiences. The aim is to learn how people build a sense of themselves through narrative and to explore the contextual narratives within which individual narratives develop and occur (Creswell & Poth, 2018; Sullivan et al., 2012) Best for a single individual or small group.
Conversation Analysis	Detailed exploration of all observable aspects of a conversational interaction to explore how that instance of conversation works as an example of a specific kind of interaction (Sullivan, et al., 2012).

When choosing an approach to qualitative analysis, the purpose of the research must be taken into consideration. The studies recorded here sought to explore participants understanding of the term introversion (Study 1) and the lived experience of introversion (Study 3). The approaches to qualitative data analysis used to achieve these aims were Content Analysis and Thematic Analysis respectively.

3.2.2.1 Content Analysis.

Content analysis can be either inductive or deductive and is an objective way to systematically reduce data to categories that describe the phenomena which are the focus of research (Elo & Kyngas, 2008; Elo et al., 2014). The three main phases of content analysis are preparation, organization, and reporting of results (Elo, et al., 2014). According to Hsieh and Shannon (2005), content analysis can be broken down in to three broad types: conventional, directed and summative. Both directed and summative approaches involve establishing specific, theoretically informed categories of interest to be the focus of data analysis. Such categories may be determined, at least in part, prior to data collection and analysis. Such categories may be determined, at least in part, prior to data collection and guide both the collection and analysis of said data. In contrast, conventional content analysis involves identifying and coding categories of content identified during data analysis subsequent to data collection. In conventional content analysis the use of predetermined categories is avoided (Hsieh & Shannon, 2005). This enables the researcher to gain knowledge of phenomena derived directly from information provided by study participants. The findings of this form of analysis are, thus, based on participants' own perspectives without the expectation of conformity to previously defined categories (Hsieh & Shannon, 2005). This can be a valuable approach for research that aims to describe a phenomenon independent of existing theory.

Study 1 aimed to describe lay people's understanding of introversion based solely on responses provided by participants to open-ended questions. and use of prior assumed definitions or categories was avoided. The qualitative approach used was inductive (Elo & Kyngas, 2008), conventional (Hsieh & Shannon, 2005) content analysis. The method of this approach to data analysis as used in Study 1 is described in detail in Chapter 4 of this thesis.

3.2.2.2 Thematic Analysis.

Thematic analysis is a highly adaptive method which enables comprehensive and intricate examination of qualitative data (Braun & Clarke, 2006). This approach focusses on the recognition, analysis and description of patterns in the data. While identification and coding of themes is a key aspect of several qualitative approaches (Braun & Clarke, 2006; Sullivan et al., 2012), Braun and Clarke (2006) argue that Thematic Analysis itself is a valid analytic approach. When applied in a considered, rigorous manner, thematic analysis can be a flexible approach which allows for insightful analysis of qualitative data and meaningful answers to research questions.

Choice of analysis in qualitative research is determined by the specific research question as well as the theoretical understandings on which the research is based (Braun & Clarke, 2006). An advantage of thematic analysis is its flexibility – analysis using this method can be driven by theory or by data. If research aims to be as open as possible to whatever is to be found in the data without theory guiding or determining the direction the analysis takes (Sullivan, et al., 2012), data driven thematic analysis is highly suitable. Even so, it is important to keep in mind that researchers' views of, and assumptions about, the phenomena of interest cannot be completely let go. In order to address this, the researcher, seeks to develop and maintain an awareness of the impact of such views and assumptions on all aspect of research design, analysis and interpretation (Sullivan, et al., 2012).

Study 3 of the research outlined in this thesis, focussed on the identification and description of the lived experience of introverts. It aimed to achieve such a description without reference to existing theories or taxonomies of personality. Therefore, data driven thematic analysis was the chosen approach to data analysis. The thematic analysis was conducted using Miles et al.'s (2020) approach to qualitative data analysis. This structured approach assisted in effectively managing the data and keeping track of the data analysis in a consistent, and highly transparent manner. The method of this approach as used in Study 3 is described in detail in Chapter 7 of this thesis.

3.2.3 Quantitative Research Design

Quantitative research comprises scientific examination of measurable, numeric aspects of phenomena and of the associations between those phenomena (Gough et al., 2012). It is broadly acknowledged that quantitative approaches predominate in psychological research and publication (Breakwell et al., 2012; Madill & Gough, 2008). Generally, the philosophy informing quantitative approaches is positivism (Bowling., 1997), holding that through observation, measurement and deduction, the properties of reality can be discovered (Bowling, 1997; Sullivan, et al., 2012). Study 2 in this program of research aimed to identify whether lay people's conceptualisations of introversion revealed a more positive or negative attitude toward introversion, and explore the relationship between self-identified introversion, ambiversion and extraversion on conceptualisations of, and attitudes toward, introversion. A quantitative research design was used to explore these research questions. Details of Study 2 are described in Chapter 5 below.

3.3 Summary of Rationale of Overall Research Methodology

Since the research reported here sought to explore lay people's perspectives and experiences of introversion, qualitative methods were primarily used. In addition, the current research aimed to explore quantitative relationships between ay people's self-identified personality and their conceptualisation of introversion. Hence, a mixed methods design was used for the program of research reported here.

Study 1 was a qualitative design. Qualitative content analysis of participants descriptions of introversion was conducted on participants' written responses to when asked to describe an introvert. Details are provided in Chapter 4.

Study 2 investigated associations between self-identified personality (introversion/extraversion/ambiversion) and aspects of conceptualisations of introversion. A quantitative design was used to examine such associations. The themes identified in Study 1 formed the data for this study and the relationships between patterns of themes endorsement and participants' introversion/ambiversion/extraversion were analysed using chi square analyses. The details of Study 3 can be found in Chapter 5.

Study 3 was a qualitative design. The focus of the study was self-identified introverts' lived experience. Thematic analysis was used to identify themes in participants descriptions of aspects of their day to day lives across multiple domains of psychosocial functioning. This allowed for acquisition of a broad understanding of introverted participants' lived experience. Details of the Study 3 methodology can be found in Chapter 7. Study 3 findings are described in Chapters 8 to 12.

3.4 Data Collection: Participants and Ethical Oversight

Data was collected using an online survey which included demographic questions (see Appendix B-3), and 11open-ended qualitative questions exploring self-identification as

introverted or extraverted, along with comprehensive domains of lived experience (See Appendix B-4). In addition to these demographic and qualitative questions, the online survey included several quantitative measures that were used in a wider mixed method study which is beyond the scope of the research reported here.

Participants were convenience samples recruited simultaneously using snowballing via email and social media. Recruitment continued between Study 1 and Study 3, resulting in a larger pool of participants available for random selection of participants for Study 3 than the participant sample for Study 1. Details regarding participants in each study of this research program can be found in Chapters 4 and 7 below.

Ethical approval for the study was gained from the Australian Catholic University Human Research Ethics Committee (Project No. 2014 275V) presented in Appendix A.

CHAPTER 4

PHASE I STUDY 1: QUALITATIVE EXPLORATION OF LAY CONCEPTUALISATIONS OF INTROVERSION

4.1 Research Background to Study 1

As mentioned above, disagreement regarding the nature and definition of introversion continues to be evident among personality researchers. In addition, some variation is evident across definitions of introversion in lay publications. Furthermore, some disparity is evident between conceptualisations of introversion in research literature as compared to definitions evident in lay understandings of this same trait.

As early as 1959, Cattell (1959) raised concern about the lay use of the term introversion, and its opposite extraversion, and about the range of unproven meanings assigned to it by ordinary people. In order to address the gap between scientific and lay understanding of the terms, Cattell went so far as to suggest that a new, distinct term, “Invia”, be used by researchers to distinguish the between the popularly conceived personality trait, and the “objectively determinable” trait identified and investigated by researchers. A similar gap between scientific and lay conceptualisation of introversion is evident in current lay writing about introversion (Cain, 2012). According to Smillie (2015), the lay definition of introversion tends to include characteristics that personality researchers associate with other personality traits, such as openness, conscientiousness and agreeableness. In order to explore lay and scientific definitions of extraversion, and its opposite introversion, Semin et al. (1981) investigated how a group of German lay participants described a “typical introvert” and a “typical extravert”. Based on the responses and their subsequent analysis and testing, Semin et al. developed what they called a “Common-sense extraversion-introversion scale”. They administered this scale and the Eysenck Personality Inventory, A form, (EPI-A) to another sample of 33 university students. They found that there was evidence of some

overlap between the common-sense descriptors and the formal scientific personality measure (EPI-A), as indicated by a correlation of 0.51 ($p < 0.001$). On the other hand, this correlation also indicated that the two scales were not measuring the same thing. Although the study sample was small, these findings indicated a gap between the lay descriptors of introversion and its scientific conceptualisation.

There has been a noticeable increase in lay publications and other media with a focus on introversion since the turn of the century. Definitions of introversion found in such books written between 2000 and 2010 tended to use a conceptualisation of introversion that reflected Jung's (1921/1971) concept of an inner orientation, and included the concept of gaining energy through turning inward (Laney, 2002; Helgoe, 2008). More recently, Cain (2012) described introversion as "reflective, cerebral, bookish, unassuming, sensitive, thoughtful, serious, contemplative, subtle, introspective, inner-directed, gentle, calm, modest, solitude-seeking, shy, risk-averse, thin-skinned" (p. 269). This is a complex view of introversion which, as Smillie (2015) noted, includes a number of characteristics that personality researchers associate with aspects of personality other than introversion. Even so, Cain's broader conceptualisation of introversion seems to resonate for many in the lay population. Diversity across lay and scientific conceptualisations of introversion may contribute to misunderstanding of aspects of this personality trait and of research findings related to introversion.

The potential for misunderstanding could pose an ethical challenge for researchers. The Australian Code for the Responsible Conduct of Research (2007) highlights such potential when communicating research findings in the public sphere, yet they also emphasise the importance of disseminating research findings broadly. The European Code of Conduct for Research Integrity (2011) also highlights the importance of accurate communication with the lay population. Given the pervasive interest of the public in personality in general,

and in introversion in particular, an important step towards reducing related misunderstandings between researchers and the general population is to explore lay meanings of introversion. Such exploration is likely to assist in identifying and bridging gaps that may exist between scientific definitions of introversion and more lay descriptions of this trait. This could facilitate increased understanding of introversion. The aim of Study 1 in the present research was to contribute to this improved understanding by exploring how lay people describe introversion and to identify key themes that recur in those descriptions.

4.2 Method

4.2.1 Participants

Participants were 87 adults (63 females, 24 male) who ranged in age from 18 to 79 years (M=34.2 SD=16.0). There were 43 participants who identified as introverted (31 female, 10 male), and 21 as extraverted (14 female, 7 male). The remaining 23 (18 female, 7 male) said they were either “a bit of both” or that they were neither. Cohen and Schmidt’s (1979) term “ambiverted” was used to designate this group of participants.

The majority of participants (70) were born in Australia, nine were born in other Asia-Pacific countries, four were born in North America, and four were born in Europe. The majority of participants were university educated (see Table 4.1 on the next page) and married (see Table 4.2 on the next page).

Table 4.1

Highest Level of Education Attained by Participants.

	Frequency	Percent
High school	25	28.7
Trade apprenticeship	3	3.4
Technical Diploma	7	8.0
University Undergraduate Degree	30	34.5
Postgraduate Diploma	9	10.3
Masters Degree	7	8.0
PhD	1	1.1
Other	5	5.7
Total	87	100.0

Table 4.2

Participants' Relationship Status.

	Frequency	Percent
Single	30	34.5
In a committed, long term relationship, living together and /or married	36	41.3
In a committed, long term relationship, not living together	17	19.5
Divorced	3	3.4
Separated	1	1.1
Other	0	0
Total	87	100.0

4.2.2 Study Design

The study was of a qualitative design focused on analysing textual data produced by participants in response to an online survey composed of open-ended questions. The choice of this research design took into account key aspects of qualitative approaches. Qualitative

research explores the meanings people make of particular phenomena (Given, 2016). As a qualitative method, examining texts people produce through a range of media, including the internet, can provide insight into people's thoughts and actions (Given, 2016). Although data collected online is likely to vary from data collected through direct, person to person, offline methods, online data collection can be a useful method for qualitative research (Roberts, 2015).

4.2.3 Procedure

As described in Section 3.4 in Chapter 3 above, participants were recruited via email and Facebook snowballing and were invited to respond to an anonymous online questionnaire about introversion. A total of 117 potential participants responded. Two were under 18 years old and were excluded. Two others were excluded because their answers were too short to provide meaningful data. Another 26 participants were excluded because of involvement in a psychology (or closely related) course or occupation. This was to reduce the likelihood that participants had formal knowledge of scientific personality theories prior to involvement in this study. This left a sample of 87 participants.

4.2.3.1 Online questionnaire

Participants completed an online survey which appears in Appendix B. In addition to demographic questions, Study 1 included the following qualitative survey questions: "How would you describe an introvert? What's good about introverts? What's not so good?". Responses were not timed or time limited and participants were free to write as much or as little as they chose in response to these questions. Participants' responses ranged in length from 8 to 173 words. A question asking whether participants were introverted or extraverted followed, once they had submitted the descriptive questions listed above.

4.2.4 Data Analysis

Content analysis (Hseih & Shannon, 2005; Madill & Gough, 2008) was used to identify categories of descriptors present in the participants' responses. Content analysis, as elaborated in Section 3.2.2.1 above, is a structured qualitative data analysis method (Madill & Gough, 2008) that can be used in studies which aim to clarify previously under-researched phenomena (Hseih & Shannon, 2005). Through repeated readings of the responses by the first author initially, the analysis of the content moved through immersion to coding and on to categorisation (Hseih & Shannon, 2005). The responses were read and analysed, and individual descriptors were manually recorded and coded, and repetitions of the responses were counted.

Initial categories of descriptors of introversion were identified and independently verified by the researcher who analysed 100% of the data, and by an independent coder, who coded a sub-sample of the responses (12 of the 87 responses). Interrater agreement was 91%. Analysis of the content of responses in the identified categories was repeated and synonyms were identified and grouped together. The resultant categories were reviewed by the full research team (including supervisors) and analysed for similarity of meaning, and where appropriate categories were once again combined into unanimously agreed upon higher order categories. The groupings of categories were verified by the research team and a final list of categories of descriptors of introverts was compiled. Throughout this process the research team maintained awareness of their own personality and subjectivity, and of the possible influence of these on interpretation of participants' responses. Finally, the frequency with which each category was evident in each participants' response was counted in order to identify the categories most commonly endorsed by participants, as displayed in Table 4.3 in section 4.3 below.

4.3 Findings

The table below (Table 4.3) presents the three broad themes and associated subthemes that emerged through the qualitative content analysis. Indicative quotes are also included.

Table 4.3

Themes Identified in Participants' Descriptions of Introversion and Frequency of Endorsement by Self-identified Personality Group.

Theme / Subtheme	No. of Participants Mentioning (N=87)	Indicative Quotes
Observable Behaviour	85 (98%)	
Interpersonal Behaviour	63 (72%)	"may seem disinterested in other people" (P30) "...a few close friends rather than large groups of people" (P43)
Spend Time Alone	49 (56%)	"enjoys spending time alone" (P59) "someone who needs alone time" (P7)
Quiet	41 (47%)	"Often quiet people" (P82) "quieter in group situations" (P1)
Reflective	32 (37%)	"don't give their opinions unless they have thought very carefully about the issues" (P7)
Take Things In	17 (20%)	"can sit back and just take everything in" (P69) "good at listening to others and […] observant" (P87)
Outcomes	80 (92%)	
Impact on Social Interactions	62 (71%)	"deep bonds with people once they feel connected" (P18) "missing out on opportunities within society and career" (P54)
Emotions / Wellbeing	35 (40%)	"can be more in touch with how they're feeling" (P49) "tend to bottle things up and get stressed" (P35)
Misunderstood	15 (17%)	"people might assume you are cold and unfeeling" (P23) "hard for other people […] to understand […]being alone" (P43)
Reasons for Introverted Behaviour	66 (76%)	
Preference / comfort	51 (59%)	"comfortable being in the background" (P56) "enjoys spending time alone in a quiet environment" (P59)
Energy / capacity	33 (38%)	"gain energy from solitude" (P10) "too much stimulation drains them" (P28)
Shy	22 (25%)	"shy, a little uncomfortable around other people" (P40)
Self-sufficient	17 (20%)	"can be more personally secure and less dependent on other people's opinions" (P34)

Note: Numbers in parentheses indicate percentages of total N.

Three broad themes were identified which included categories of descriptors of introversion mentioned by 66 or more of the 87 participants (>75.9%). The broad themes were Behaviour Associated with Introversion (endorsed by 85 of the 87 participants), Outcomes of Introverted Behaviour (endorsed by 80 of the 87 participants), and Reasons for Introverted Behaviour (endorsed by 66 of the 87 participants). Table 4.3 presents the percentages of participant endorsement of the broad themes, and for the subthemes for each broad theme.

Details concerning the themes and subthemes identified above in Table 4.3 are provided below. The terms introvert, extravert and ambivert which are linked to the following the quotes are based on participants' own identification in response to the survey question asking if they were introverted or extraverted. It was possible to link self-descriptions as introvert/ambivert /extravert to all responses as indicated below.

4.3.1 Behaviour Associated with Introversion

Observable behaviours were included in 85 participants' descriptions of introversion. Participants' descriptors of introverted behaviour contained themes related to Interpersonal Behaviour, Spending Time Alone, Quiet Behaviour, Reflective Behaviour, and Taking Things In.

4.3.1.1 Interpersonal Behaviour

References to Interpersonal Behaviour were evident in 63 participants' descriptions of introversion. These references included a range of both positive and negative aspects of interpersonal behaviour which participants associated with introversion.

4.3.1.1.1 Negative aspects of Interpersonal Behaviour. The negatively valanced descriptors of behaviour included reference to awkward or unacceptable social behaviours, and to introverts not being very forthcoming interpersonally. In addition, some participants stated that

being rude, hurtful or socially difficult in other ways were negative aspects of introversion. For example, participant 66, an introvert, wrote that introverts were “less good at socialising”. An ambiverted participant (P41) referred to introverts “struggling in large groups”. This sense of struggle is reflected by participant 78, an introvert, who noted that introverts “may find it hard to make friends or be unsure how to act with unfamiliar people”. Extraverted participant 48 also wrote about introverts’ “struggle to communicate”. Introverts were described as “taking a while to ‘warm up” to you” (P76, ambivert) or being “slow to warm up to people” (P38, introvert; P80, introvert). Other participants used more clearly negative terms to describe introverts’ interpersonal behaviour. Introverts were described as “subdued” (P62, introvert), “withdrawn” (P6, extravert), “uncommunicative” (P4, extravert), and “sitting by themselves lonely” (P45, ambivert). Introverted interpersonal behaviour was described as “annoy[ing]” (P16, introvert), “rude” (P59, ambivert), “awkward” (P74, introvert), and the cause of “hurt” (P48, ambivert) and “embarrassment” (P82, extravert). At times such descriptors were softened with words such as “perceived” or “seem” or “come across”. Even so, some aspects of introverted interpersonal behaviour were described as clearly negative.

A lack of initiative in conversations was frequently noted in participants’ descriptions of introverts. Participants referred to introverts as hard to communicate with or hard to get to know. For example, introverted P10, wrote that introverts are “no good at small talk, can be a boring addition to a party”. An extraverted participant wrote that with introverts “communication can be a challenge, [they] don’t share ideas without prompting” (P13). At times participants expressed strong negative views of introverted interpersonal behaviour, as can be seen in the following response:

> Someone who is withdrawn, quiet, not very communicative and tends to be at the back of a group. I don’t see anything good about an introvert. It can be difficult to

draw this type of person into a conversation or to join a group. They may give the impression of being 'standoffish'. (P64, extravert)

4.3.1.1.2 Positive aspects of Interpersonal Behaviour. While negative aspects of interpersonal behaviour were clearly evident in some participants' definitions of introversion, more positive descriptors were also evident. The sense that it takes time and effort to get to know introverts recurred in participants' descriptions. This sense was often accompanied by indications that introverts are worth getting to know and that introverts have positive characteristics that are important in social interactions and friendships. Such positively valanced characteristics included empathy, kindness, and deep friendship. Descriptions of introversion included the view that introverts can be "Kind, caring, loyal friends" (P 60, introvert); and that they "often have a lot of empathy for others" (P 48, extravert). There seemed to be a sense of comfort and security in friendships with introverts since "you know you're good friends if they can open up to you and spend lots of time together" (P 39, ambivert).

4.3.1.2 Spending Time Alone

In addition to focussing on how introverts behave in interaction with others, participants' definitions of introversion included frequent references to introverts being on their own. References to introverts spending time alone and enjoying their own company were seen in the responses of 49 participants. For example, participants defined introversion as referring to someone who "… prefers their own company. Being around people for too long drains them or makes them anxious" (P 31, ambivert). Introverts were also described as those who "keep to themselves, enjoy being by themselves, like quiet, not the centre of attention" (P21, introvert). Introverts' positive experience of being alone was an aspect of introversion that was recognised by extraverts, as well as by introverts and ambiverts, as can

be seen in this extravert's description: "An introvert is someone who enjoys their own company and is happy just doing their own thing" (P71, extravert).

4.3.1.3 Quiet

Being quiet, peaceful or calm was mentioned in 41 responses. One participant stated clearly that being "More quiet in terms of expressing oneself. Doesn't necessarily mean they are less confident" (P75, introvert). Some participants described how this tendency might be seen in interactions with others, including in conversation "Someone who is quieter and enjoys listening to people talk rather than be the one talking" (P27, extravert), and in activities "Prefers quieter experiences in smaller groups or individual activities (P 9, introvert). For some, introverts' quiet style was seen as a strength, since they were seen as "usually calm and collected" (P 3, ambivert).

4.3.1.4 Reflective

This theme included participants' descriptions of introverts as considered, slow to decide or act, and as thinkers. Such descriptors were included by 32 of the participants. Participant 7, an extravert, wrote that introverts "are often very thoughtful and don't give their opinions until they have thought very carefully about the issues". For some participants, such as ambiverted Participant 39, the reflective aspect of introversion was unequivocally positive. Participant 39 wrote: "They are generally quiet, reserved, deliberate, think before they speak and keep to themselves. What's good about introverts - they think deeply about things". Participant 30, an introvert, also referred to this tendency to consider things carefully, while acknowledging its disadvantages as well as advantages:

> Pros: They think things over before making decisions or putting actions in place, they can often think of creative or different solutions to problems that others

> may not think of […]. Cons: They need extra time to think about what they are going to say or do … (Participant 30, introvert)

4.3.1.5 Take Things In

The capacity to take in information and experiences was mentioned by 17 participants. Introverts were described as being good observers and listeners. Participant 2, an ambivert, defined an introvert as "Someone who is quiet and observes. Good listeners". Participant 5, an extravert, also included observation in their definition of introverts whom they described as people who "enjoy supporting quietly in the background. They tend to be observant, and good question askers". Similarly, participant 67, an introvert, wrote that introverts "have the ability to observe and notice things about others".

4.3.2 Outcomes

The broad theme of outcomes of being introverted was included in 80 responses. There were three Outcome subthemes which related to Impacts on Social Interactions, Emotions and Wellbeing, and to introverts being Misunderstood.

4.3.2.1 Impact on Social Interactions

The most frequently mentioned outcome of introversion related to its impact on social interactions. Such outcomes were mentioned by 62 participants and included references to difficulty making friends, deep friendships, and irritating others. In some cases participants described actively avoiding social interactions, as can be seen in this extraverted participant's description: "Some tend to push people away inadvertently simply because the energy required to always let people in is simply too much. At times, participants expressed some annoyance with introverts' avoidance of social events, even while seeming to have some understanding of the reason for introverts' reasons for doing so. This can be seen in ambiverted Participant 28's description of a disadvantage of introversion in stating "they

often can't handle too much stimulation, [it's] hard to get them to come to social events after a long week, so need to make extra time to see them".

Introversion was not only considered to have a negative effect on socialising, participants also noted that introverts do enjoy social interaction, "tend to value their smaller circles of friends" (P 43, introvert), and "can be a good friend" (P 37, extravert). In addition, introversion was linked to positive traits in relationships. For example, Participant 34 wrote "It can be hard for introverts to form friendships but when they do, they tend to be deeper relationships" (P 34, introvert). Extraverted Participant 18 echoed this, noting introverts "will often make deep bonds with people once they feel connected".

4.3.2.2 Emotions/Wellbeing

Outcomes related to emotions or wellbeing were evident in 35 responses. Both positive and negative emotional consequences of introversion were mentioned.

4.3.2.2.1 Negative emotions. Participants included reference to introverts' characteristics or behaviours contributing to distress or difficult emotions. Traits such as reticence, anxiety and rumination were included in descriptions of introversion and were identified by some participants as being detrimental to introverts' wellbeing. One ambiverted participant wrote that an introvert is "Someone who is shy/socially awkward. / They're good at keeping things to themselves. / Keeping too many things to themselves could be detrimental to their wellbeing" (P 25). An extraverted participant noted introverts can "overthink things causing worry and anxiety" (P 19). Anxiety was also noted by introverted Participant 85 who wrote that a "not good" aspect of introversion was "anxiety in new situations".

4.3.2.2.2 Positive emotions. References to positive emotions or benefits to wellbeing were also evident. For example, several participants associated introversion with calm and peace. Participant 31, an ambivert, wrote, "maybe more peaceful and content". This was

echoed in another introverted participant noting that introverts "can be quite peaceful- not easily angered or upset" (P30). Participant 71, an extravert, wrote "overall I think it is good that they don't rely on others for happiness".

4.3.2.3 Being Misunderstood

Reference was made by 15 participants to introversion resulting in misunderstandings or in being misconstrued in some way. One participant, an introvert, said that "others mistake them [introverts] as being disinterested, snobby, rude" (P 54). Participant 87, an ambivert, wrote that "often they [introverts] can be mislabelled as weird or the quiet one". Another participant described introverts as "not always easily engaged, [they] can cause embarrassment to themselves and others through misunderstanding" (P 82, extravert).

While participants noted that introversion could be misunderstood, it was also evident that many lay participants in this study also sought to make sense of introversion by identifying reasons for aspects of introverted behaviour, as can be seen below.

4.3.3 Reasons for Introverted Behaviour

Participants wrote about the reasons for introverted behaviour in 66 responses. Explanations for introverted behaviour included themes regarding introverts' preferences or comfort, their energy levels or capacity, and being self-sufficient.

4.3.3.1 Preference / comfort

In 27 responses, participants described preferences or comfort levels as being important in determining introverts' behaviour. For example, one participant wrote that an introvert "enjoys their own company, does not need outside stimulation all the time, likes peace and quiet" (P 3, ambivert). Participant 9, an introvert, stated that in introvert "prefers quieter experiences in smaller groups or individual activities. Can lack confidence with

strangers or large groups of people especially in unfamiliar environments". An extraverted participant referred to a more global discomfort around people, writing that "an introvert is shy and uncomfortable around others" (P 23).

4.3.3.2 Energy / Capacity

In 33 participants' responses some reference was made to introverts' energy needs or capacities. Participant 11, an introvert, described an introvert as "a person that gains energy from being alone with limited stimuli. They can also be gregarious and lively but it's just that their batteries will eventually run out and they'll have to be alone in the quiet so that they can recharge". References to introverts needing time alone in order to gain energy were also made by extroverts and ambiverts. For example, participant 56, an ambivert, described an introvert as someone who "draws energy from themselves" and noted introverts "need time to themselves". Participant 48, an extravert, wrote: "an introvert gains energy from being alone".

4.3.3.3 Shy

At times spending time alone was associated with being shy. Descriptors regarding shyness were included by 23 participants. For example, one participant wrote:

> Introverts are quite shy and diffident and don't enjoy being in situations where they don't know many of the people. They may be insecure and worry that no one will like them or find them worthy of spending time with. They do not mind their own company but their shyness in social situations means they can rarely relax and let go. (P 17, introvert)

Another participant echoed this description by describing an introvert as "someone who is quite shy and withdrawn" (Pt 69, ambivert).

4.3.3.4 Self-sufficient

Other interpretations of why introverts behave as they do related to being self-sufficient. This theme included participants' descriptions of introverts as self-sufficient, independent, inward oriented and not needing social interaction. Such descriptors were included by 17 of the participants. Participants wrote that introverts "seem to be happy with their own company" (P 61, ambivert). Being self-sufficient was generally described in positive terms, as can be seen in responses from extraverted participant 71, who described introverts' independence as a counterpoint to shyness by writing: "Sometimes they can be shy and not easy to talk to but overall I think it is good that they don't rely on others for happiness". Participant 79, an introvert, wrote a very similar response, stating "A good thing is they don't need to rely on others to make them happy or entertain [them]".

4.4 Study 1 Brief Discussion

The findings of Study 1 indicate that, like personality theorists and researchers (e.g.: Haslam et al., 2017), the participants in this lay sample conceptualised introversion as being largely related to interpersonal behaviours and their outcomes. Some characteristics identified by lay people in the current study, such as Reflective, Quiet and Spending Time Alone, suggested characteristics commonly found in scientific conceptualisations of introversion. This indicates that, on some levels, lay understandings of introversion can be similar to those of personality scientists. Even so, in spite of some strong agreement on key aspects of introversion, variation was evident when compared to scientific definitions. The range of participants' responses and how responses relate to current scientific definitions will be discussed in the overall discussion of thesis findings in Chapter 13.

CHAPTER 5

PHASE I STUDY 2: QUANTITATIVE EXPLORATION OF THE RELATIONSHIP BETWEEN SELF-IDENTIFIED INTROVERSION, AMBIVERSION OR EXTRAVERSION AND LAY CONCEPTUALISATIONS OF INTROVERSION.

Study 2 aimed to explore the influence of introversion, ambiversion and extraversion on conceptualisations of, and attitudes towards, introversion. This study proposed to address the research questions of whether being introverted, ambiverted or extraverted was associated with particular ways of describing introversion, and whether introverts, ambiverts or extraverts differed in how negatively or positively they described introversion. A review of relevant scientific and lay literature informing Study 2 is presented below.

5.1 Background to Study 2

As outlined in Chapter 2 of this thesis, it is evident within both lay and scientific writing that conceptualisations of introversion vary. Lay authors, and social media blogs, videos and discussions seem to indicate that lay people conceptualise introversion differently from scientific authors. In particular, lay authors who identify as introverts themselves (e.g.: Cain, 2012; Rufus, 2003) have emphasised misunderstandings regarding the nature of introversion. Research is needed to explore whether such misunderstanding exist, and, specifically, whether being introverted, extraverted or ambiverted is related to conceptualisations of introversion.

Furthermore, both scientific (e.g.: Anderson et al. 2001; Costa & McCrae, 1992; Ferree & Smith, 1979; McCord & Joseph, 2020) and lay authors (e.g.: Cain, 2009) have noted a tendency to prefer and idealise extraversion. This has been called the “extraverted ideal” (McCord & Joseph, 2020; Cain, 2012). It has been suggested that this idealisation has

negative consequences for introversion. A preference for extraversion and devaluing of introversion could contribute to bias against introversion, internalised prejudice and social and vocational disadvantage for introverts. Given the assumption that a bias against introversion exists, and considering recent literature outlining theoretical components of such bias (McCord & Joseph, 2020), as well as taking into account the possible negative outcomes of such bias, it is clear further research is needed factors that may influence a bias against introversion, including one's own identification as introverted, ambiverted, or extraverted.

5.1.1 Bias Against Introversion

In the scientific writing, there has tended to be an assumption of a bias against introversion, but little empirical evidence of this negative attitude has been reported. One of the few articles found describing research which identified a preference for extraversion, and thus a bias against introversion was that of Anderson et al. (2001). In describing their expectations when researching face to face status, Anderson et al. referred to extraverted traits as "desirable" and identified that, while there were some theoretical indications that extraverted traits were socially desirable, empirical evidence was needed to confirm this. In their research into the effect of personality on social status, Anderson et al. confirmed that extraversion was highly valued by their participants. In a series of studies, they found that extraversion predicted social status. These findings provide some evidence of a preference for extraversion and, thus, a bias against introversion (low extraversion).

Bias against introversion can be found in both scientific and lay writing. For example, in the *16PF (5th Edition) Administrator's Manual*, Russell and Karol (1994) wrote that "introversion is seen as less desirable that extraversion" (p.31). DeYoung et al. (2007) reiterated this view, writing that "all of the negative poles [of the Big Five] are socially undesirable" (p.883). This encompasses introversion which is the negative pole of extraversion. As stated by McCord & Joseph (2020), further research is needed regarding

biases against introversion. In addition, the impact of such a bias on lay conceptualisations of introversion should be explored.

5.1.2 Conflating Introversion and Psychopathology

As noted by Hills and Argyle (2001), research linking extraversion and happiness has resulted in extraversion being considered the personality trait that is most linked to happiness. By extension, introversion is less likely to be linked to happiness, and therefore, one could assume, is most probably linked to unhappiness. Such an assumption has not always been supported by published research. Anglim et al. (2020) found that while low extraversion (i.e.: introversion) was associated with lower positive affect, the relationship between extraversion-introversion and negative affect varied depending on the measure of personality used. When measured by the IPIP NEO introversion was associated with negative affect, however when measured using the HEXACO, introversion was not associated with negative affect. Therefore, while research indicates that more introverted people may experience lower levels of positive emotions, this does not necessarily mean they experience more negative emotions. Anglim et al. noted that differences in how extraversion-introversion is conceptualised in each measure, these likely contributed to the differing findings. Definition of introversion is crucial to exploration and understanding associations with and implications of this important trait.

In spite of findings such as those of Anglim above, consideration of introversion as pathological has a long history. In articles from as early as 1916, some personality theorists wrote of introversion as abnormal (Guilford, 1930). Introversion has been believed to be associated with maladjustment and emotional difficulties (Farley, 1968). The tendency to conflate introversion with psychopathology has been evident psychiatric circles, for example, in 2010, the World Health Organisation's (WHO) International Statistical Classification of

Diseases and Related Health Problems, 9th Revision (ICD-9) included a listing for Introverted Personality Disorder (WHO, 2010). However, since then, the word "introverted personality" is no longer listed as a personality disorder in the WHO's classification system (WHO, 2016; 2023). Although the European diagnostic manual moved away from using introversion as an indicator of psychopathology, during the discussions contributing to the development of the American Psychiatric Association's (2013) Diagnostic and Statistical Manual, the DSM 5, it was suggested that introversion, defined as a "deficit of extraversion" (Ancowitz & Helgoe, 2010) be included as one of six 'trait domains' which clinicians would rate to assess mental illness. A higher rating of a deficit of extraversion was to be indicative of greater dysfunction. For the most part the changes suggested for the Personality Disorders in the DSM 5 have not been implemented in this latest version of the DSM. Introversion does not appear as a diagnostic criterion for any of the Personality Disorders listed in the DSM 5 (APA, 2022). Even so, consideration of using the term introversion as a criterion to indicate psychopathology highlights the extent of bias against introversion.

Similarly, in describing their Pathological Five Model (PFM), Krueger and Eaton (2010) referred to introversion as one of five domains of personality pathology. They described introversion in their model simply as the "opposite of extraversion" (p. 99). Two of the other four domains of psychopathology that they name are also opposites of five factor model traits: antagonism (agreeableness) and disinhibition (conscientiousness). For the other two, specific terminology is used to differentiate from normal personality (negative emotionality for extreme neuroticism, and peculiarity for extreme unconventionality, i.e.: pathological openness). It seems that some underlying judgement has been made that the terms antagonism, disinhibition and introversion are negative in and of themselves, and are as such easily accepted as terms to describe psychopathology. This is in contrast to the decision to use a different term for pathological unconventionality, or even for pathological

neuroticism. While elsewhere in the paper Kreuger and Eaton acknowledged that being introverted is not necessarily pathological, but that using the term introversion rather than an alternative provides some evidence of a bias against introversion. This is in spite of a broad range of evidence indicating that introverts have a number of notable strengths. Introversion has been found to be related to academic giftedness (Sak, 2003), ability to perform cognitive tasks when sleep deprived / good memory (Taylor & McFatter, 2003) and collaborative group work (Nussbaum, 2002). Thus, the scientific literature has demonstrated tension and disagreement regarding the nature and meaning of introversion. Such tension has also been evident in the lay literature, and is likely to impact the lay view of introversion.

5.1.3 Ingroup Favouritism

It is likely that being introverted, ambiverted or extraverted will influence how one describes introversion. According to Bjornsdottir et al. (2019), for a range of cohorts (ethnic, sexual orientation, linguistic), the group to which one belongs is a key aspect of identity and an important contributor to the sense one has of others. An individual's views and understanding of interpersonal behaviour is related to their own social context (Feiler & Kleinbaum, 2015). Feiler and Kleinbaum's (2015) research into social networks revealed that:

> Extraversion has two important implications for the emergence of network ties: a popularity effect, in which extraverts accumulate more friends than introverts do, and a homophily effect, in which the more similar are two people's levels of extraversion, the more likely they are to become friends. These effects result in a systematic *network extraversion bias*, in which people's social networks will tend to be overpopulated with extraverts and underpopulated with introverts. Moreover, the most

> extraverted people have the greatest network extraversion bias, and the most introverted people have the least network extraversion bias. (p. 593)

It is clear that identifying as introverted or extraverted impacts on people's social environment, and therefore influences perceptions of others' personality and behaviour. This is likely to contribute to conceptualisation of what such behaviour means in regard to personality traits such as introversion. In addition, it is likely that an individual's self-identification in this dimension contributes to conceptualisation of introversion.

5.1.4 Social and Occupational Consequences of Bias Against Introversion

Although research regarding stigmatisation of introversion is not extensive, some studies have found that introverts are prejudged and excluded in social and occupational settings (Ferree & Smith, 1979; Lewis & Sherman, 2003; McCord, 2017, as cited in McCord & Joseph, 2020). For example, in a study aiming to examine the impact of individual as opposed to social stigmata in the selection of job applicants, Ferree and Smith (1979) found that, although they had not anticipated introversion would play a stigmatising role, introversion/extraversion had more influence on participants' selection of candidates for employment than the experimentally manipulated stigmata, which included disability, race and gender. Most participants "claimed to be concerned about gregariousness to the exclusion of all other concerns" (Ferree & Smith, 1979, p.92). In a more recent study, McCord (2017, as cited in McCord & Joseph, 2020) investigated perceived mistreatment at work, and found that 49% of self-identified introverts indicated that they had experienced adverse treatment related to their introversion. Such research suggests that people who consider themselves introverted are likely to encounter prejudice and disadvantage. It is therefore important to

investigate how factors such as individual differences in personality traits influence conceptualisations of, and attitudes towards, introversion.

5.1.5 Internalised prejudice

One negative consequence of a societal bias against introversion is the potential for introverts themselves to develop a bias against introverts. Research (Fazio et al., 1981; Lawn et al., 2019) indicates that the combination of a person's perceptions of another and the first person's behaviour towards the second person can lead the second person to behave in such a way the confirms the first person's perceptions, creating a self-perpetuating cycle of confirmed perceptions, regardless of the accuracy of the original perceptions or preconceptions. Fazio et al. (1981) found that such behaviour on the part of the perceiver, and the resulting behaviour of the target of the perception, can lead the target person to alter their own view of themselves to align more with that of the perceiver. Fazio and colleagues found that the participants in their study "displayed evidence of having internalised the dispositions implied by their earlier interactions [with the perceiver]" (p. 232). The phenomenon of internalising others' perceptions can lead to the internalisation of negative perceptions and prejudgements. Such an internalised prejudice has been found to contribute to negative psychosocial outcomes. For example, Feiler and Kleinbaum (2015) suggested that society may incorrectly assume that people in general are on average more extraverted than is actually the case. They posited that this overestimation of societal extraversion could contribute to the assumption, on an individual level, that one's own introversion is not in keeping with societal norms and this incorrect assumption could contribute to a reduced sense of belonging, lower self-worth, and poorer self-esteem in more introverted people. Szczesniak et al. (2021) found that lower extraversion scores (i.e. higher introversion) was related to higher internalised stigma. While their study focussed on internalised mental illness

stigma in people with severe mental illness, such findings suggest that introverts could be at particular risk of internalised stigma, including possible internalised prejudice against introversion. Internalised prejudice and stigma have been found to be related to negative psychosocial outcome such as low self-esteem, increased shame, and poorer help seeking and social support (Chow & Cheng, 2010; Miller, 2009; Szczesniak, et al., 2021). It is possible that some of the findings regarding poorer psychosocial outcomes for introverts are due, not to being introverted, but rather to being an introvert in an extravert dominated world. In their overview of common themes across a range of theories of psychological development and positive functioning, Ryff and Burton (2008) highlighted the importance of holistic self-acceptance in the development of psychological wellbeing. For introverts, the internalisation of negative stereotypes and perceptions associated with being part of the less dominant group (McCord & Joseph, 2020) may be likely to limit their self-acceptance and contribute to reduced self-esteem and increased negative affect. Given the potential negative outcomes of negative stereotypes of and bias against introversion, further research is warranted. Exploration of lay people's conceptualisations of introversion could help determine whether negative perceptions of introversion exist and whether such perceptions are related to one's own introversion, ambiversion and extraversion.

5.2 Research Aim and Hypotheses

The current exploratory study aimed to explore participants attitudes towards introversion as revealed in the findings of Study 1. Study 2 sought to extend the findings of Study 1 by investigating whether themes and descriptors used in lay conceptualisations of introversion were influenced by self-identified introversion, ambiversion and extraversion. It was hypothesised that:

1) self-identified introversion, ambiversion and extraversion would be related to themes in qualitative descriptions of introversion.
2) descriptions of introversion would reveal a bias against introversion in that there would be a higher proportion of negative descriptors than positive descriptors, and that this would be most evident in self-identified extraverts.

5.3 Method

5.3.1 Participants

Participants were 87 adults (63 females, 24 males) who responded to an invitation to participate in research about personality. They ranged in age from 18 to 79 years (M=34.2 SD =16.0) and there were 63 females and 24 males. Of the 87 participants, 42 (48.3%) identified as introverted (30 female, 12 male), 20 (23%) identified as extraverted (17 female, 3 male), and 25 (28.8%) (16 female, 9 male) said they were either “a bit of both” or neither. As in Study 1, the term “ambiverted” was used to label this group.

5.3.2 Procedure

The data for this quantitative study were the descriptors and themes describing introversion which were generated in Study 1 of this thesis, as detailed in Chapter 4 above.

5.3.3 Data analysis

Chi-Square tests were conducted to explore whether there were differences in the frequency of themes endorsed by participants self-identifying as introverts, ambiverts or extraverts. In addition, responses were analysed for negatively and positively valanced language. A z-score was calculated to test for differences in the proportion of positive or negative descriptors used to describe introversion.

5.4 Findings

5.4.1 Hypothesis 1: Differences in Expected Response Themes between Self-identified Personality Groups

On examining the results of the Chi-square tests, a significant relationship was found between identifying as an introvert, ambivert or extravert and describing introverts as people who Spend Time Alone, X^2 (2, N=87) = 11.873, p = .003. Extraverts less frequently included Spend Time Alone in their descriptions than would be expected if self-identified personality was not related to the descriptions. Introverts included Spend Time Alone more frequently than expected.

There was also a significant relationship between identifying as an introvert, ambivert or extravert and describing introverts as Quiet, X^2 (2, N=87) = 9.451, p = .009. Extraverts more frequently than expected included references to introverts being Quiet in their descriptions. Introverts included Quiet descriptors less frequently than expected.

In addition, the relationship between self-identified personality and describing introverts as Shy approached significance, X^2 (2, N=87) = 5.788, p = .055. Extraverts tended to include Shy in their descriptions more frequently than expected. Introverts tended to include Shy in their descriptions less frequently than expected.

For Spend Time Alone, Quiet, and Shy, while introvert and extravert response frequencies were as described above, ambivert response frequencies were as expected. For the response categories Interpersonal Behaviour, Reflective, Impact on Social Interactions, Emotions/Wellbeing, Preference/Comfort, and Energy/Capacity the Chi-Square analyses were not significant. This indicated that the likelihood of endorsement of these six categories was not related to identifying as introverted, extraverted or ambiverted.

Chi-Square tests were not able to be conducted on the Take Things In, Misunderstood, or Self-sufficient subthemes due to violation of the assumption that all expected frequencies be at least five (Allen & Bennett, 2012).

5.4.2 Hypothesis 2: Positive and Negative Descriptors

There were 169 positive and 212 negative descriptors counted. A test of the difference in the proportion of positive descriptors (0.44) and negative descriptors (0.56) revealed a significant difference, $z=3.12$, $p=.002$. This result indicates that participants used significantly more negatively valanced words to describe introversion than positively valanced words.

An Analysis of Variance (ANOVA) was conducted to test associations between self-identified introversion, ambiversion, and extraversion. There was no significant association between self-identified introversion, ambiversion, and extraversion and the number of positive and negative descriptors used..

5.5 Study 2 Brief Discussion

This study explored the relationships between self-identified personality traits (introversion/ambiversion/extraversion) and themes and positive/negative latency of descriptors of introversion. Hypothesis 1 was partially supported. Frequency of endorsement of three themes, Spend Time Alone, Quiet, and Shy, was associated with self-identified introversion and extraversion. Ambiversion was not related to frequency of theme endorsement. Hypothesis 2 was also supported. Our analysis revealed there were overall a higher proportion of negatively valenced terms as compared to positively valenced terms in participants' descriptions of introversion, suggesting a bias against introversion in the conceptualisations of this trait. Counter to expectations, self-identified extraversion,

ambiversion and introversion were not related to the number of positive or negative descriptors used. Overall, these results indicate that some, but not all, of the diversity in participants' definitions of introversion was related to whether participants identified as extroverted, ambiverted or introverted. These findings are discussed further in the thesis discussion in Chapter 13 below.

CHAPTER 6

BACKGROUND TO PHASE II STUDY 3: EXPLORATION OF THE LIVED EXPERIENCE OF INTROVERSION

While the first phase of this program of research comprised Study 1 and Study 2 which explored lay conceptualisations of and attitudes towards introversion as described in Chapters 4 and 5 above, this second phase of the research comprised one study, Study 3, an in-depth qualitative investigation of the lived experience of self-identified introverts across a broad range of domains of psychosocial functioning. This study sought to explore how self-identified introverts lived their lives, to consider whether their descriptions of their lived experience aligned with lay and scientific understandings of introversion, and to identify aspects of the lived experience of introversion not captured by current scientific frameworks.

Study 3 is presented over several chapters below. This chapter, Chapter 6, provides an overview of scientific literature pertaining to psychosocial functioning and introversion, and concludes with the rationale for Study 3. The methodology for Study 3 is described in Chapter 7 below. The comprehensive findings for Study 3 are presented in Chapters 8 to 12, with each chapter including findings for specific domains of inquiry. The domains of inquiry focus on particular aspects of psychosocial functioning which participants were asked to comment on in their responses.

According to Goldstein (2013) a psychosocial perspective considers current and past person-situation factors in order to understand personality in depth. In recognition of the heritability and contextual factors contributing to personality, and acknowledging the breadth of interaction between a person's personality and their internal and external experiences, psychosocial functioning was chosen as the framework used in Study 3 to structure the exploration of self-identified introverts' lived experience. This allowed for comprehensive

capturing of interpersonal and intrapersonal aspects of self-identified introverts lived experience.

6.1 Introversion in Terms of Psychosocial Functioning

Scientific and lay conceptualisations of introversion indicate that some aspects of introversion have implications for wellbeing and psychosocial functioning. How much of this is accurate? How much is merely due to the biases and assumptions made about introversion? In this chapter selected literature regarding introversion and psychosocial functioning will be reviewed, key findings will be summarised, and gaps in knowledge identified.

6.1.1 Definition of Psychosocial Functioning

According to Mehta et al. (2014) "Psychosocial functioning reflects a person's ability to perform the activities of daily living and to engage in relationships with other people in ways that are gratifying to him and others, and that meet the demands of the community in which the individual lives" (p. 1). Understanding the way that a person manages each day, combined with attention to the ebbs and flows of their functioning across multiple situations over time is important to gain comprehensive insight into an individual's psychosocial functioning (Ro & Clark, 2009). Assessment of psychosocial functioning generally includes consideration of domains of experience such as developmental aspects, home life, education and or employment, social interactions, and leisure activities (e.g.: Goldenring & Rosen, 2004; Skodol, et al., 2002). Aspects related to life satisfaction, wellbeing or psychological distress may also be included in such assessments.

In the current edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association [APA], 2022), the implications of personality functioning are highlighted in the alternative model for personality disorders. In this model, personality

functioning (comprising identity, self-direction, empathy, and intimacy) is recognised to be a continuum of functioning across self (identity and self-direction) and interpersonal (empathy and intimacy) dimensions, with well-functioning, normal personality at one end, and impaired functioning, personality disorder at the other. Therefore, consideration of identity and of interpersonal intimacy is important when exploring psychosocial functioning as they are key to understanding personality characteristics such as introversion.

6.1.2 Psychosocial Functioning and Wellbeing

According to the World Health Organisation, mental health is considered to be "a state of wellbeing in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (WHO, 2021, p.1). This definition highlights the breadth of experience to keep in mind when considering people's psychosocial functioning. WHO goes even further to highlight the importance of a healthy sense of identity, the ability to manage emotions, the capacity to learn, and the ability to establish and maintain health interpersonal relationships. This definition aligns well with eudemonic wellbeing which Waterman, et al. (2010) described as emerging from an individual behaving in ways which align with that individual's sense of self and acting in line with basic principles, capacities and limitations, while making contributions and working towards goals. Such goal orientated behaviour can occur across a range of domains and contributes to a sense of meaning and purpose which are beneficial for adaptive psychosocial functioning and wellbeing. Several domains of experience important for psychosocial functioning form the basis of the review of literature below.

6.1.3 Introversion and Psychosocial Functioning

Extensive research has examined the relationship between wellbeing and personality. Given the general recognition of the introversion-extraversion domain as an overarching aspect of human personality, it is not surprising that considerable emphasis has been on exploring the implications of these characteristics for wellbeing. The relationship between introversion-extraversion and wellbeing has been well established (e.g., Anglim et al., 2020; Smillie, 2012; Sun et al., 2016). Unfortunately, introversion (or low extraversion) has repeatedly been found to be negatively related to wellbeing (Weninger & Holder, 2014). For example, Anglim et al. (2020) recently conducted a meta-analysis examining personality and both psychological and subjective wellbeing. Their results confirmed that higher levels of extraversion were strongly related to greater wellbeing. This indicates that more introverted people are likely to have poorer wellbeing. Anglim et al. (2020) also examined whether the individual facets that comprise the five domains of personality in the NEO personality measure each contributed incrementally to the prediction of wellbeing. The authors found only a moderate contribution. This could be considered surprising, since, according to Weninger and Holder (2014), the positive emotions facet of introversion-extraversion "is almost indistinguishable from subjective wellbeing" (p. 7). The mechanisms of the link between introversion-extraversion and wellbeing relate to several domains of human functioning, including biology, genetics, behaviour, context and development. Weninger and Holder concluded that this robust relationship has implications across the breadth of psychosocial functioning including health and longevity, education and vocation, and identity and interpersonal relationships.

Identity and self acceptance may be particularly important in the relationship between introversion and wellbeing. This was highlighted in a study by Lawn et al. (2019). These researchers explored the implications of extraversion deficit beliefs and of authenticity for the

relationship between extraversion and wellbeing. They found that being true to one's nature had positive implications for wellbeing. Such authenticity partially mediated the relationship between introversion-extraversion and wellbeing. However, for some people, being more introverted is not viewed positively and is considered a lack of more desirable extraversion. For such people, a perceived deficit of extraversion can impact on authentic expression of central aspects of one's identity and psychosocial functioning. This can then reduce the positive effect of authenticity. Lawn et al. (2019) found that, while extraverts are more likely than introverts to feel authentic, this effect was not as strong when a person's extraversion-deficit beliefs were taken into account. Introverts with lower extraversion-deficit beliefs (i.e., those who were comfortable with their own introversion and less likely to believe they should be more extraverted) experienced a greater sense of their own authenticity as compared to introverts with more extravert-deficit beliefs. Lawn et al.'s study revealed that this moderating effect of extraversion-deficit on the relationship between introversion-extraversion and authenticity has implications for wellbeing.

It is important to consider whether caution is warranted when considering research regarding the relationship between extraversion and wellbeing. Many scientific definitions and measures of introversion-extraversion, particularly the five factor model, include a subscale related to cheerfulness or positive affect. Haddock and Rutkowski (2014) noted that such aspects of introversion-extroversion are highly similar to subjective wellbeing. This may be a confounding factor in investigations into the relationship between extraversion (and therefore introversion) and wellbeing, raising questions regarding links between these two characteristics. Research such as that of Lawn et al. (2019) provides some support for the proposition that there may be factors yet to be identified that contribute significantly to the introversion-extraversion association with wellbeing.

6.2 Current Knowledge about Introversion and Psychosocial Functioning

The framework of psychosocial functioning that was broadly used to inform the domains of inquiry focussed on in Study 3 was the HEADSS approach to structuring psychosocial history taking (Goldenring & Rosen, 2004). This approach was adapted to suit an adult community sample such as that which was the focus of this study. The psychosocial domains explored in Study 3 included developmental history (family of origin and memories of school), occupation (employment and education), leisure activities, interpersonal interactions (socialising and romantic relationships), and intrapersonal functioning (self-concept, spending time alone, managing fatigue).

6.2.1 Developmental considerations

Aspects related to an individual's development have implications for subsequent psychosocial functioning and identity development. Family history, as well as childhood experiences at home and at school can be related to the skills and patterns of intra- and interpersonal interactions a person has in moving through life. Research into interactions between introversion and a range of developmental experiences has included examination of interactions between parent and child personality, of stability of introversion over time, and of associations between introversion and school behaviour and friendships.

6.2.1.1 Introversion Across Childhood, Adolescence and Emerging Adulthood

Childhood (age 0 – 12 years), adolescence (13 -17 years) and emerging adulthood (18- 29 years) are developmental periods of significant biological, psychological and social development and change. Researchers have investigated patterns of personality change and stability during these phases. Slobodskaya (2021) reviewed and summarised the research into personality development across childhood and adolescence. She found that over the course of

childhood (up to age 10 years), introversion increases. While Slobodskaya indicated that findings regarding the stability of introversion during adolescence are inconsistent, Masurado et al. (2014) noted that introversion was found to decrease in both male and female adolescents. Furthermore, as indicated by Haslam et al. (2017) and Seifert et al. (2022), some degree of personality instability is generally evident through emerging adulthood. While it may not be surprising that key aspects of personality may vary during developmental periods of significant change, it is important to note that personality variability has been found to decrease from adolescence into early adulthood.

6.2.1.2 Introversion in Adulthood

Adulthood is of course a developmental period that is also associated with physical and psychosocial changes (APA, 2022). Adulthood has been considered to involve a range of biopsychosocial markers including physical maturation, chronological age (i.e.: over from age 18 or age 21), or psychosocial maturity (Young et al., 2010). Psychosocial maturity includes becoming independent and autonomous, and being capable of intimacy, and of contributing to society and others. Adulthood may be indicated by accomplishment of significant social actions, such as leaving home, moving into a career, establishing a long term romantic relationship, becoming responsible for others such as in a parenting or caring role. Identity achievement can also be considered an important task of adulthood which has implications for psychosocial markers of adulthood and for wellbeing (Fadjukoff, 2007).

Personality changes across adulthood have been extensively investigated. In their recent study of personality stability across the lifespan, Seifert et al. (2022) found that personality becomes increasingly stable across adulthood. However, they also found that, particularly in less healthy people, personality traits can become more variable in later adulthood. In regard to introversion in particular, Seifert et al. noted that, of the five traits in

the five factor model, the extraversion-introversion dimension was found to be the most stable over time. According to their results, extraversion-introversion appears to remain generally stable in participants aged from the late 20s to late 60s. Levels of extraversion-introversion in older adults appear to become notably less stable. Seifert and colleagues attributed changes in personality stability in older age to changes in health. It is clearly important to consider contextual and functional factors when investigating introversion throughout adulthood. Current models of personality focus largely on overt behaviour associated with introversion, with little attention to broader experiential factors, nor to subjective motivational aspects. Exploration of these factors could contribute to increased understanding of people who are more introverted.

6.2.2 Interpersonal Relationships

Physiological aspects related to introversion can impact on interpersonal experiences and behaviour. Research has consistently found that introverts experience stronger physiological and biochemical reactions to sensory stimuli such as noise, pain, and touch (Boyle et al., 2008). Boyle et al. noted that such increased sensitivity provided one explanation for introverts' preference for quiet and solitude, and may also be one reason for introverts' withdrawal to recover after stimulating social situations. Introverts have also been found to have neurological and biochemical responses that contribute to slower and fewer motor responses, as compared to extraverts. It may also be that biological differences impact on how and how much introverts socialise. The higher baseline arousal and physical reactivity associated with introversion may contribute to aspects of socialising being more stressful and physiologically demanding for introverts. Lu and Wang (2017) examined physiological aspects, including cardiovascular and respiratory effects, of adapting to social stressors. They found that participants higher in introversion showed more physiological

reactivity, less recovery, and less adaptation when exposed to social stress; introverts tended to become more sensitised to repeated social stressors, rather than less so. Variations related to level of introversion can contribute to differences in both how much introverts socialise, and in the behaviours associated with introversion-extraversion, such as levels of liveliness, energy and talkativeness (Boyle et al., 2008).

These behaviours, in turn, are likely to have implications for the quality and outcome of social interactions, and may be factors in findings such as introverts reporting lower positive affect and sense of belonging in social situations (Sobocko, 2019). For example, Sun et al. (2017) investigated how social experience influenced the relationship between trait and enacted extraversion and positive affect (which is an aspect of happiness). They found that one particular quality of social experiences, that of social contribution (having the sense that one can and does contribute something worthwhile to society), played a role in the relationship between extraversion and positive affect. Interestingly, they also found that being introverted or extraverted did not affect the relationship between positive affect and behaving in an extraverted, sociable manner.

Overall, it seems that, rather than extraverts being inherently happier that introverts, it is particular experiences gained through the social interaction that contribute to differences in affect and wellbeing. In addition to implications for happiness (or positive affect), social connectedness is also important for wellbeing. Recent research by Sun et al. (2020) confirmed that both the number of social interactions and certain qualitative aspects of those interactions were related to wellbeing for both introverts and extraverts. Sun and colleagues further noted that, for introverts, deeper conversations were associated with experiencing more connectedness. In short, particular qualities of social interactions are important for wellbeing across the introvert-extravert dimension, and particular qualitative characteristics

of socialising, such as meaningful interactions and conversations, are particularly important in contributing to introverts' wellbeing.

While introverts may benefit from more meaningful social interactions, and from "acting extraverted", they are also likely to need to manage the level and intensity of their social interactions in order to avoid experiencing excessive physiological effects and overstimulation as a result of both socialising itself and the context in which socialising occurs. The experience of feeling fatigued or depleted of energy after interpersonal interaction, which has often been included in lay descriptions of introversion (Study 1 reported above; Helgoe, 2008; Laney, 2002; Cain, 2012), is likely related to physiological effects such as those described by Lu and Wang (2017) and Leikas and Ilmarinen (2017). Behaviours related to living with and managing such effects can impact on introverts' friendships and romantic relationships. Further research is needed to explore how this interaction manifests in the lived experience of introverts.

6.2.2.1 Friendships

Introversion has implications for interpersonal relationships including friendship and romantic relationships. The effects of introversion have been identified in the formation of friendships (Nelson & Thorne, 2012), in what people like or not about each other (Sun et al., 2022), and in the effect of conversation quality on social connectedness. That is, "relatively introverted participants experience relatively greater increases in momentary feelings of social connectedness during hours in which they had deeper conversations, compared to relatively extraverted participants" (Sun, et al., 2020, p. 1490).

Regarding the formation of friendships, research has indicated that although people may believe that others would want to be friends with them if they had many friends, it is more likely for people to want to develop friendships with those who actually have fewer

friends (Si, et al., 2021). Therefore, it may be that introverts' preference for smaller numbers of friends and generally smaller social networks (Pollet et al., 2011; Malcolm et al., 2021) may increase the possibility that others may want to initiate friendship with them. According to Dunbar (2018), there may be good reason to prefer to develop friendships with introverts:

> Data on self-ratings of emotional closeness suggest that, because the amount of social capital we have seems to be fixed, those who have larger networks on average have weaker relationships (they choose to spread their available social capital thinly across a large number of individuals), whereas those with smaller networks prefer to spread it thickly among fewer. (p. 34).

It is also worth noting that, while the sociability of extraversion has been found to be considered desirable in a friend (Lönnqvist et al., 2021; Sun et al., 2022), characteristics associated with high extraversion (or low introversion) such as seeking attention, being loud, or being overpowering, were also identified as undesirable in a friend (Sun et al., 2022). It seems that being less extraverted, that is more introverted, can be positive in friendships. Even so, Berry et al. (2000) investigated relationships between personality and friendship quality and found that participants and their friends who had lower extraversion scores (i.e.: higher introversion scores) tended to both rate their friendship as less close. Overall, while some benefits of introversion for friendships have been identified, other research in this area has identified unfavourable implications of introversion for friendship. Further exploration of introverts' experiences in friendships is warranted.

6.2.2.2 Romantic relationships

Having a partner is associated with lower introversion (more extraversion) (Pusch et al., 2019; Scollon & Diener, 2006). In a longitudinal study in which participants were

assessed every two years over an eight year period, Scollon and Diener found that higher relationship satisfaction was associated with reduced introversion over time. However, this study only considered relationship satisfaction of participants who were married or living with their partner, and the results cannot be generalised to introverts in other kinds of romantic relationships. In fact, given that research has found that introversion is negatively associated with moving in with, or marrying, a partner (Beck & Jackson, 2022), it seems that introverts may be overlooked in many studies examining relationship satisfaction.

6.2.3 Occupation: Work and Education

The World Health Organisation (2021) has highlighted the importance of working and contributing to one's community in relation to wellbeing. Such a contribution can be seen in the study by Zhai et al. (2011) which found that job satisfaction partially mediated the relationship between extraversion and subjective wellbeing. This indicates that part of the relationship between extraversion and wellbeing may be due to satisfaction in occupational activities. Sun et al. (2017) conducted a series of studies which may provide additional support for the impact of work and contributing to one's community on wellbeing. They found that participants' sense that their social impact was positive went some way to identifying the reason for the effect of inherent and enacted extraversion on happiness. In addition to family, romance and friendships, work is a key sphere where one can have a beneficial social impact. The inclusion of occupational endeavours as important aspects of psychosocial functioning aligns with the WHO's holistic view of well-functioning.

While work related factors can be beneficial for psychosocial functioning, bias against introversion may be evident at work, which can impact negatively on introverts' wellbeing. McCord and Joseph (2020) noted that while bias and poor treatment due to introversion has been described extensively in lay writing, scientific investigation into this phenomenon has

been lacking. They developed the 10 item Perceived Introversion Mistreatment Scale (PIMS, see Table 6.1).

Table 6.1

Perceived Introversion Mistreatment Scale – Retained Items.

Item
1. At work, I have been ignored more often than other employees because I am introverted.
2. Necessary information has been withheld from me at work because I am introverted.
3. At work, others have taken credit for my work because I am introverted.
4. At work, my work has been unfairly scrutinized because I am introverted.
5. At work, people have treated me as though I am unsociable because I am introverted.
6. The people I work with have treated me unfavorably because I am introverted.
7. I have received unfair treatment where I work because I am introverted.
8. Colleagues at work have expressed dislike toward me because I am introverted.
9. In my workplace, I have received less praise compared to other employees because I am introverted.
10. At work, my professional judgments have been questioned because I am introverted.

From McCord, 2021, p.442.

An earlier qualitative study (Moore, 2016) generated themes similar to items in the PIMS. Moore conducted open-ended interviews with introverts to explore the experience of introversion. It is interesting that the bulk of her findings seemed to relate to vocational experiences, in spite of the interview questions being very open and without a particular emphasis on work experiences. Half of the participants described unpleasant experiences associated with their introversion which occurred at work or in a tertiary education setting. Most participants in Moore's study also described feeling misunderstood and putting effort into acting extraverted at work in order to adapt to other people's expectations and to be accepted. Exposure to such bias and mistreatment, combined with what Cain (2012) called "the extravert ideal", can be internalised by introverts, resulting in internalised self-prejudice

(Fazio, et al., 1981) and extravert-deficit beliefs (Lawn, et al., 2019), both of which can be detrimental to wellbeing and healthy psychosocial functioning.

Research regarding the implications of introversion for vocational and educational endeavours is presented below.

6.2.3.1 Work

Most research into work and introversion has actually examined extraversion, and only by considering the effects of low extraversion can the findings regarding introversion be discerned here. In a review of research over a ten year period, Blevins et al. (2021) found that only 5 articles specifically named introversion in their hypotheses, and only one did not focus on possible negative impacts of introversion in the hypotheses. In a prior meta-analysis, Wilmot et al. (2019) found introversion was likely to be a small but clear disadvantage at work due to their finding that for almost all (90%) of the work related variables they examined, introversion (low extraversion) was associated with undesirable aspects effects. Blevins et al. reported similar findings in their review. They noted that scientific literature considers a very extraverted person to be the ideal worker; thus, by extension, an introvert would be the least desirable employee. Even so, Blevins and colleagues also reported that the results of their review seemed to indicate that in some situations extraversion may be a disadvantage and could be associated with aggression or bullying.

Not all literature examining work and introversion (or its opposite extraversion) found introversion to be a disadvantage. For example, introversion (low extraversion) was found to be associated with a reduced tendency to take risks at work (Zhong et al., 2021). Another study by Zhang et al. (2017) also found a benefit of introversion in that it may contribute to increased creativity in certain contexts.

Oram (2016) conducted a qualitative exploration of the lived experience of introverts who identified themselves as leaders in their professional context. The model that emerged from her research demonstrates the cyclical process of introverts' leadership which starts with an internal focus, then moves through extending and reaching to engage with others in active leadership experiences which then result in depletion of introverts' energy and resources. This depletion necessitates a withdrawal and return to the inner experience and a need for solitary, replenishing activities to reflect and recover, allowing for processing and preparation for a return to engagement with the external world and others once again. Oram noted that managing this process of leadership became easier for introverts as they gained experience and self-assurance as leaders. Oram's research demonstrates that introversion need not preclude contribution and leadership at work, and her study elucidates processes integral to introvert leadership.

One way to understand some of the processes Oram (2016) identified in her study is to consider the role of adaptable characteristics within a person, which Little (2020) has referred to as "free traits". Free traits are "strategic enactments that simulate stable traits" (Little, p.141). Such traits can by activated as needed when a person is motivated to act in ways that are different to their usual stable personality. An example of this would be when a more introverted person chooses to be active and talkative in a context where this behaviour is needed to achieve a desired goal or to engage in a valued activity, such as might be the case in social interactions or leisure activities, as well as at work or in education. Behaving counter to one's disposition can be beneficial in that it helps achievement or progression of something important to the individual. However, there are also likely to be negative consequences of acting out of character in this way. Over time, counterdispositional behaviour can result in fatigue and, if prolonged, potential burnout (Leikas & Ilmarinen, 2017; Little, 2020).

6.2.3.2 Education

Wilmot et al. (2019) considered education to be a career related domain and included literature investigating adults', or emerging adults', education and extraversion in a meta-analysis in this area. They found introversion (i.e.: lower extraversion) to be related to disadvantages for 15 of the 21 education related variables included. In particular, introversion was found to be problematic for goal oriented variables and for adjustment to college. Even so, for some education related variables, introversion was found to be beneficial, including study attitudes, career decision making, and study habits.

6.2.4 Leisure activities

Involvement in leisure activities has implications for psychosocial functioning and wellbeing for all people. Caldwell (2005) conducted an extensive review of the scientific literature examining the interaction between leisure, wellbeing and health. She suggested that diversity is important, combining active pastimes along with more passive relaxing and distracting hobbies. Caldwell concluded that engagement in leisure activities can prevent as well as address a range of life challenges and makes an important contribution to psychosocial functioning as well as to physical health.

What activities people choose to engage in, and in what way, can be influenced by an individual's level of introversion-extraversion. Such influence has been found in regard to participation in physical activity. For example, Allen et al. (2021) reviewed research on extraversion in sport. They found that people who were not athletes tended to be more introverted than those who were athletes, and that there were gender differences in athletes' levels of introversion-extraversion, with females tending to be more extraverted than males. They also found coping strategies used by athletes, their relationships with their coaches and

their success varied with their level of introversion-extraversion. Lin et al. (2007) examined motivation in members of a fitness centre and found that more introverted participants were less motivated than more extraverted participants.

Leisure activities other than physical activity have also been found to be associated with introversion-extraversion. Stephan et al. (2014) found that in both American and French participants, less extraversion (i.e.: higher introversion) was associated with being less likely to be involved in a range of different types of leisure activities, including physical, social and cognitive activities. This was in keeping with Lu and Hu's (2005) finding that overall participation in leisure activities was negatively associated with introversion, including those that were socially and/or physically stimulating. They also found that more introversion was associated with less satisfaction with leisure activities, and that satisfaction with leisure activities was associated with happiness, as indicated by a measure which included positive and negative affect as well as life satisfaction. The consideration of stimulation level of activities was also investigated by Brandstaetter (1994), who found that introverts were less likely than extraverts to choose highly stimulating leisure activities, and that extraverts had stronger social motivation. He concluded that differences in introverts' and extraverts' preferences for stimulation and social motivations may contribute to differences in mood both at work and in leisure activities. Interestingly, Brandstaeter found work/leisure mood differences were less marked in introverts.

6.2.5 Energy Levels and Fatigue in Introverts

Although lay conceptualisations of introversion (e.g.: Cain, 2012) often make reference to becoming fatigued after extensive interaction with people (either with many people or for a longer than preferred period of time), scientific conceptualisations do not tend to include this possible aspect of introverts' experience. Little (2020) proposed that it is likely

that counterdispositional behaviour (enactment of free traits) could lead to fatigue. This theoretical proposition was found to be likely. In a study of healthy volunteers over 50 years of age, Chan et al. (2021) found that personality was associated with perceived physical fatigability, with more introverted people likely to be more prone to a sense of physical fatigue. They highlighted the importance of further research to gain more understanding of the interactions between extraversion (and, thus, introversion) and energy potential and sustainability.

Given the higher baseline arousal (Beaudoucel et al., 2006), preference for lower levels of stimulation (Green, 1984), and greater sensitivity to dopamine (Smillie et al., 2010) associated with introversion, it makes sense that introverts may be more easily fatigued. If two people are engaging in the same stimulating or demanding activity, the body of the more introverted person is likely to be working harder. While this may not necessarily be evident to observers, or even to the individual themselves, it is logical to imagine that such physiological activation could be draining and would contribute to increased fatigue. Little (2020) described the importance of restorative strategies to counter free-trait (counterdispositional) behaviour. Leikas and Ilmarinen (2017) found that while extraverted behaviour was related to positive mood and lower fatigue while acting extraverted, such behaviour was also associated with feeling more tired three hours later. It seems that acting out of character may tax introverts' energy levels, even when such behaviour feels good and/or fits with a persons' priorities and purpose. Some aspects of traits associated with introversion, such as being reserved or spending time alone (International Personality Item Pool [IPIP], n.d.), may be related to strategies they engage in to manage fatigue and to protect or restore energy levels. Such strategies are likely to be important to maintaining good psychosocial functioning.

6.2.6 Summary of Methodological Critique of Research regarding Psychosocial Functioning and Introversion

The vast majority of the research outlined above in this chapter used quantitative approaches to explore a range of interactions between introversion-extraversion and psychosocial functioning, reflecting the almost exclusive publication of quantitative research in the personality field. Sun (2020) argued that personality traits are more than the observable behaviours associated with them and highlighted the importance of internal, psychological aspects of personality characteristics, which include thoughts, emotions, preferences, needs and motivations. Gaining an understanding of these internal aspects is particularly important for an inwardly oriented aspect of personality such as introversion.

While one may consider that self-report surveys do target participants' experience, research (König et al., 2012; Lundmann & Villadsen, 2016) has identified considerable variation in participants' understanding and interpretation of self-report items and their response scales. In addition, participants' motivations and intentions vary extensively when completing questionnaires, even across those selecting the same response to the same questions. It is therefore important to acknowledge that in spite of their usefulness, self-report questionnaires have distinct limitations when attempting to explore and understand personality. Lundmann and Villadsen emphasised the interdependence of qualitative and quantitative research and highlighted the importance of qualitative research in contributing to understanding of personality. Through qualitative personality research, an overview of personality can be gained by analysing individuals' experiences, thoughts, feelings and behaviour (for example), and integrating results of such analyses into a general theory by confirming, extending, or differentiating prior knowledge. Qualitative approaches can explore and identify internal psychological aspects of personality and can inform subsequent research questions and approaches. This is particularly important for the study of introversion.

While some research related to personality has been conducted using qualitative methods, such as that by Moore (2016) and by Oram (2016), both of which are dissertations rather than published articles, current qualitative research in personality seems to very rarely be published in scientific journals with a focus on personality. Some qualitative research is published in organisational psychology publications, and in education or health journals, yet most psychology publications include almost no qualitative research. As noted by Block (2010), it seems that personality psychology has, over time, moved away from seeking to identify and understand intrapersonal psychodynamics, preferences and motivations (e.g.: Jung 1923/71). Key conceptualisations of personality dominant in current scientific publications seem to lean heavily on observation and empirical data, but lack consideration of key aspects of individual experience needed for a comprehensive theory of personality. In particular, the subjective, inner aspects of human lived experience has been overlooked. This is important for introverts in particular, who may not display or speak of their subjective experiences as enthusiastically or assertively as more extraverted people (DeYoung et al., 2007), yet who have been thought to prioritise their inner world and subjective experience (Jung, 1923/1971). The third study in the current program of research aimed to address a portion of this gap by exploring the lived experience of introverts.

6.3 Rationale for Qualitative Exploration of the Introvert Experience

Given the range of conceptualisations of introversion described in Chapter 2, and considering that differences in understanding of introversion exist both between and within lay and scientific circles, it is important to consider whether a new approach to exploring introversion can improve our understanding of this key personality trait. An important source of information regarding what introversion is, and how it is expressed in day to day life has been overlooked, and that is people's own descriptions of their lives across broad realms of

psychosocial functioning. While it is true that an extensive, quantitative research base exists regarding introversion and numerous aspects of psychosocial functioning, such research by its nature is based on certain presuppositions which guide the identification of hypotheses and the selection of measures to use. These necessarily limit the information that participants in such research can share with researchers. The qualitative approach to be taken in Study 3 allowed participants to respond freely to open-ended questions, and to generate broad descriptions of their experience including internal psychological phenomena and well as interpersonal and behavioural aspects.

CHAPTER 7

METHODOLOGY OF STUDY 3: EXPLORATION OF LIVED EXPERIENCE OF INTROVERSION

7.1 Expectations of Study 3

Previous research has identified some aspects of introverts' experience and functioning, but gaps still exist in the knowledge of this trait. To better understand what introverts experience in their day-to-day life, and to identify gaps or errors in existing theories and research, this study attempted to elicit and analyse introverts' own experiences across the key areas of psychosocial functioning.

7.1.1 Study Rationale

Given that no research to date has asked introverts to describe the breadth of their day-to-day experiences, and taking into account the range of both lay and scientific conceptualisations of introversion, research was needed to explore introverts' own experience across the range of domains of psychosocial functioning. The results of such exploration could then be compared and contrasted with both scientific and lay conceptualisation of introversion.

7.1.2 Study Aim

The aim of Study 3 in this program of research was to explore the lived experience of self-identified introverts through a qualitative investigation of self-identified introverts' descriptions of their experiences in key domains of psychosocial functioning. The purpose of this exploration was to generate data regarding introverts' experiences which could be used to examine the question of whether how well the current scientific knowledge seems to fit with

the introvert lived experience in important areas of psychosocial functioning. In addition, the similarities and differences between lay conceptualisations and lived experience could also be considered based on data generated from this research. The domains of inquiry in this study related to areas important to wellbeing and health, in keeping with current key definitions of health as described in Chapter 6. These domains focussed on self-identification as introverted, acting as extraverted, family of origin, past experiences at school, current occupation (work/study), leisure activities, being alone, socialising, romantic relationships, and tiring experiences. Each domain of inquiry, along with associated subdomains, were addressed in the questionnaire used in this study.

7.2 Study Method

7.2.1 Study Design As described in Chapter 3 above, qualitative methodologies are well suited to research aiming to explore participants' understandings and subjective experiences in a particular area of empirical focus. This study was an exploratory study examining self-identified introverts' lived experience across broad domains of psychosocial functioning in their day-to-day lives. Therefore, a qualitative design was used in which participants' textual responses to open-ended questions in an online questionnaire were analysed.

7.2.2 Study Participants

Participants were drawn from 245 participants recruited online. Of these, 120 responses were from self-identified introverts. These latter responses were divided into 6 age groups: 18-24, 25-34, 35-44, 45-54, 55-64, and 65+. From each of these age groups one female and, where possible, one male was randomly selected using Andrew Hedges Random Number Picker (https://andrew.hedges.name/experiments/random/). In the 65+ and the 35-44yo age groups there were only female participants available so only one participant (female) was

selected for these two groups. The final sample used for this study was 10 adults (6 females, 4 males) who self-identified as introverted and ranged in age from 18 to 69 years (M=42.5 SD=18.19). All participants were born in Australia. The majority of participants were university educated (see Table 7.1) and in a committed, long-term relationship, living together. (see Table 7.2).

Table 7.1

Highest Level of Education Attained by Study 3 Participants.

	Frequency	Percent
High school	3	30
Technical Diploma	1	10
University Undergraduate Degree	4	40
Postgraduate Diploma	1	10
PhD	1	10
Total	10	100

Table 7.2

Study 3 Participants' Relationship Status.

	Frequency	Percent
Single	2	20
In a committed, long-term relationship, living together and /or married	5	50
In a committed, long-term relationship, not living together	1	10
Divorced	-	-
Separated	2	20
Total	10	100

7.2.3 Study Procedure

As described in Chapter 3, Section 3.4 above, participants were recruited via email and Facebook snowballing and were invited to respond to an anonymous online questionnaire about introversion. Participants were asked whether they were introverted or extraverted and 120 of them self-identified as introverts. These participants were divided into six age groups which reflected emerging adulthood (Arnett, 2000) and subsequent adult developmental life stages (Medley, 1980). From these groups, a total of 10 participants were randomly selected, as described in Section 7.2.2 above, for the sample of the study reported here.

7.2.3.1 Data Collection or Identification.

In order to explore the lived experience of introverts, participants were asked to provide written responses to open questions in an online questionnaire.

7.2.3.2 Structure of the Questionnaire

The online survey used in Study 3 included demographic questions which were the same as those used in Study 1 (see Appendix B-3, and 10 open-ended questions about key aspects of day-to-day life and psychosocial functioning, namely: self-identification of introversion, acting as extraverted (counter dispositional behaviour), family of origin, education (memories of school), occupation (current work/study), being social, recreation (leisure and fun), being alone, romantic relationships, and tiring days and recovery (See questions 2 – 11 of Appendix B-4). Responses were not timed, and participants were able to write freely as much as they wished to answer the open questions.

The qualitative questionnaire was designed to explore domains of inquiry keeping with pertinent aspects of conceptualisations of psychosocial functioning commonly used in health and wellbeing settings and associated literature (e.g.: Goldenring & Risen, 2004;

Lengel & Tortorice, 2022). Each area of questioning relates to a particular domain of psychosocial functioning as listed above. Under each of these domains, several follow up questions were included to elicit further detail related to subdomains of the area functioning. Therefore, in describing this study, the terms “domain” and “subdomain” are used to refer to particular lines of questioning and areas of inquiry which were included in the questionnaire. This usage is consistent throughout the analysis for Study 3 and in the subsequent discussion (see Chapter 13).

While participants also provided responses to qualitative questions regarding their conceptualisation of introversion (Q1 in Appendix B-4), these did not form part of Study 3 and were not included in the analysis described below.

7.2.4 Data Analysis Methodology

7.2.4.1 Data analytic strategy

As discussed in Chapter 3, Section 3.2.2.2 above, thematic data analysis was conducted to identify and examine patterns that emerge across participants’ descriptions of their experience. Thematic analysis is a qualitative data analysis approach which involves identifying repeated patterns evident across a data set (in this case across participants’ responses). The approached used for the thematic analysis in this study followed Miles et al.’s (2020) method which is a structured, systematic approach to data analysis appropriate for use with a range of qualitative research designs. This methodology involves three key activities: condensing the data (e.g.: coding and identifying patterns and themes), displaying the data (e.g.: findings tables and textual examples), and drawing and verifying conclusions. These activities co-occur across several phases during the analytic process. This method of analysis was chosen for this study as the structured approach was deemed beneficial for managing

complex data covering multiple domains of experience. Miles et al.'s process involves documenting or displaying each phase of the data analysis, and this affords a highly explicit and transparent method which can facilitate verification of coding and replicability of the research process.

Domains of inquiry, and associated subdomains, related to specific aspects of psychosocial functioning which were addressed with targeted questions in the online survey. In the description of the analysis and findings below, the terms "domain" and "subdomain" refer to particular lines of questioning in the study questionnaire. Participants' responses to these questions formed the data which was analysed for this study. Participants' responses across all questions for this study ranged in total length from 219 words to 906 words.

Data in this study was analysed across all participants for each domain of inquiry explored in the questionnaire. Using and iterative approach, the researcher became familiar with the data by repeatedly reading the written responses. While doing so, impressions and reflections were noted on the data in margin jottings on the transcripts. Further readings of transcripts allowed for increasingly specific identification and coding of emerging themes, and subsequently of overarching higher order themes emerging from the data. The actual analysis of the data involved seven phases:

1) *Punctuating the data* - identifying and recording data units within each domain of inquiry, i.e., verbatim chunks of meaning within the transcripts. Data units were entered into a table to be used for further analyses. See Appendix C-2 for an example.
2) *Initial data condensation cycle* – assigning initial codes to the data units identified in phase 1. Data tables were created in which identified codes were recorded and counted. Data in these tables were used in subsequent analyses. See Appendix C-2 for an example.

3) *Second data condensation cycle* – identification of emergent themes. Tables were created displaying emergent themes for each of the study domains and subdomains. Identified patterns and emergent themes were recorded. Repetitions of themes and codes were counted and recorded in the tables. Data in these tables were used for subsequent analyses. See Appendix C-2 for an example.
4) *Third data condensation cycle* – initial combining of emergent themes into higher order themes. Occurrences of themes in each domain and subdomain for each participant were recorded counted and entered into tables created displaying higher order themes for the domains and sub domains explored. Data in these tables were used for subsequent analyses. See Appendix C-2.
5) *Fourth condensation cycle* – Some of the study domains and subdomains were combined where appropriate. Higher order themes were further condensed and subthemes evident in these were identified, recorded and counted. Tables were created displaying higher order themes and subthemes for domains of inquiry and associated subdomains. Data in these tables were used for further analyses, refinement and verification. See Appendix C-2.
6) *Finalisation of findings* - Final higher order themes and subthemes were displayed in tables under each of the domains and subdomains of inquiry. Textual examples were identified and included in the table.
7) *Identification and display of themes that recurred across domains* - Themes that recurred across domains and the domains in which they occurred were identified and a table summarising these was created.

The final tables produced are described in detail in the presentation of the findings in Chapters 8 to 12 below.

7.2.4.2 Methodological integrity

Through all steps of the thematic analysis, the researcher remained aware of personal self-identification as an introvert bringing subjectivity to understanding participants' responses. How this may have influenced interpretation of participants' responses was taken into account during the data analysis.

In addition, developing and final themes were reviewed by the PhD supervisory team to check their relevance and validity. After all phases of the analysis, conclusions related to coding the data, and later to identification of and labelling of themes, were reviewed, discussed and verified with the PhD supervisory team. The decision was made to include themes that were evident in a few of participants' responses as well as themes that emerged across all participants. This is in keeping with the recognition that infrequent aspects of the data can also make important contributions to elucidating the research question (Braun & Clarke, 2022).

7. 3 Organisation of Presentation of Findings

Participants' responses aligned with seven broad domains of experience which largely reflected the areas of psychosocial functioning addressed in the study questionnaire. These domains were Self-identification as Introverted, Acting as Extraverted, Family of Origin, Education (Memories of School Experiences), Occupation, Recreation, Being Alone, Being Social, Being Romantic, and Tiring Experiences. The multi-pronged nature of the survey questions comprised several sub-domains and encouraged some complexity in responses for each domain of inquiry. Even so, while the domains and sub-domains were generally associated with specific questions from the online survey, there was notable variety in whether or not participants referred to these in their responses.

The thematic analysis procedure described above allowed for recognition of higher order themes which emerged from responses to questions in each of the ten domains of inquiry and in their associated subdomains. The higher order themes that emerged in each domain of inquiry are described in detail in the subsequent chapters as follows:

- Chapter 8 - Domains One, Two and Three: Self-identification as Introverted, Acting as Extraverted and Family of Origin
- Chapter 9 - Domains Four, Five and Six: Education (Memories of School), Occupation and Recreation
- Chapter 10 - Domains Seven, Eight and Nine: Being Alone, Being Social and Being Romantic
- Chapter 11 - Domain Ten: Tiring Experiences
- Chapter 12 - Themes Recurring across Domains and Brief Discussion

CHAPTER 8

PHASE II STUDY 3: FINDINGS FOR DOMAINS ONE, TWO AND THREE - SELF-IDENTIFICATION OF INTROVERSION, ACTING AS EXTRAVERTED AND FAMILY OF ORIGIN

Findings related to questionnaire items which focussed on participants' self-identification as introverted, participants' acting as extraverted, and their family of origin's levels of introversion and extraversion and what that meant for participants are presented in this chapter. Although all participants were asked the same questions in the online questionnaire, not all participants chose to respond to all questions. The domains of inquiry are presented below in the order in which they appeared in the survey. The themes that arose in each domain are presented in order of descending frequency.

8.1 Domain of Inquiry 1: Self Identification as Introverted

In order to be included in this study, participants must have stated they were an introvert in response to the question: "Are you an introvert or an extravert?" In addition to self-identification as introverted, almost all participants (90%) spontaneously generated descriptions of their own characteristics which were indicative of introversion. These participants wrote of how they are with themselves and how they are with others. Higher order themes that emerged from these descriptions related to self-reliance, variations in the experience of introversion, interpersonal style, awareness of social expectations to be different, impact of introversion on friendships, and the importance of alone-time. Further detail regarding each of these higher order themes is provided below.

8.1.1 Higher Order Theme: Self-reliance

This theme encompasses aspects of participants' responses related to independence and self-sufficiency. Such aspects were evident in 60% of participants' responses. Participant 2 stated "I don't depend on the affirmation, attention or even presence of other people to feel happy". Similarly, participant 9 stated: "I quite enjoy my own company and don't need to be constantly in company". Other participants wrote that they "tend to work fairly effectively on [their] own" (P3); are "content in [their] own company" (P7); and their "needs for interaction are less" (P10). Participants' descriptions of self-reliance tended to evince a sense of self-confidence and contentment.

8.1.2 Higher Order Theme: Variations in the Experience of Introversion

This higher order theme included concepts related to the experience of introversion not being static. Of the participants, 60% indicated that introversion can vary in degree, by context, and over time (through familiarity and through development). Half of participants included some indication of introversion having various degrees or levels. For example, participant 2 referred to degrees of introversion by clarifying their own degree of introversion. They wrote "I am an introvert – but not too severely". Participant 1 also referred to varying levels of introversion, stating "I am more of an introvert". In addition, participants wrote about variations in their own experience of introversion. These changes tended to depend on contextual factors. Participant 3 stated this clearly when they wrote, "More introverted however this can fluctuate with at different times of in different situations".

Particular contextual factors that participants noted contributed to differences in their own introversion were novelty, magnitude and time. Participants noted that new roles, settings, or people could contribute to increased reserve or uncertainty. Participants wrote that with new people they felt uncomfortable or constrained. For example, participant 1 wrote,

“I’m not myself when first speaking to someone”, and participant 7 reflected that they were “not good talking to strangers”. Participant 9 reported that uncertainty in new situations or new people, influenced some of the choices they made. They wrote: “Introvert. This means I hate parties or situations where I don't have a defined role or where I don't know most of the people in a group. I sometimes don't go to such social gatherings because of this”. Group situations were another example of context impacting on participants’ experience of introversion. For many this seemed to be due to the magnitude of the experience. The magnitude of noise, or the number of people in a particular context was a feature participants described as impacting on them. For example, participant 3 wrote,

> I tend to find too much noise or too big a crowd a bit overwhelming. I need to balance time with other people with time alone to re- energise. I do tend to work fairly effectively on my own but also in small groups. Larger groups tend to make me withdraw.

The last contextual factor to mention here is that of time. Participants described two ways that time influenced their experience of introversion. First, the amount of time with particular people or in a particular setting, influenced participants’ sense of familiarity and comfort, which impacted on participants’ experience within themselves (intrapersonal) and their experience of and with others (interpersonal). For example, participant 1wrote, “around my friends I’m quite extraverted as I am more comfortable”. The second way that participants reported how time impacted on the experience of introversion is due to changes over the course of one’s life. Participant 10 wrote: “Introverted, although with age I have learned to put myself out there more and consider others’ feelings rather than worrying about how I come across”. Over time this participant’s interpersonal and intrapersonal experience has changed. Given time, introverts can become more comfortable with themselves, and with

others. This in turn leads to increased comfort and familiarity which changes the way introverts experience themselves and others.

8.1.3 Higher Order Theme: Interpersonal Style

This theme included aspects of descriptions of introversion related to how participants described their preferred way of interacting with others. When describing their introverted characteristics, over half of participants (60%) referred to preferred (or less preferred) modes of interacting, as well as to particular aspects of behaviour which they related to being introverted. For example, participants wrote of disliking crowds. Participant 9 stated that they "hate parties", and participant 3 wrote: "I tend to find too much noise or too big a crowd a bit overwhelming". Participants also spoke of not needing to be the focus of situations or interactions. For example, participant 1 wrote: "I don't like being the centre of attention, it makes me uncomfortable". Participant 2 wrote of a benefit of not needing the centre of attention, stating: "I'm good at listening because I don't feel the need to be the centre of attention all the time". Participant 7 framed not being the centre of social interactions in a different way when they wrote that they "don't need to dominate".

8.1.4 Higher Order Theme: Awareness of Social Expectations to be Different

This higher order theme involves participants' description of an awareness that some of their behaviour or preferences were not always what people around them expected and were at times misunderstood. This seems to have contributed to some participants' sense that they should be different in some way. Half of the participants made reference to experiences related to an awareness of social expectations to be different. This can be seen in the aforementioned statement by participant 10 that over time they "learned to put [themselves] out there more and consider others' feelings". Participant 7 also expressed this sense of

expectation to behave differently than they were inclined to when the wrote about “having to be social when [they] don’t [want] to…”.

On factor that participants identified as contributing to others’ expectations for them to be different was other people’s lack of understanding. Participants referred to other people not understanding needs or preferences associated with their introversion. Such misunderstandings contributed to interpersonal difficulties due to either negative interpretation by others, or due to the effort participants felt was required to assert their needs while also working to manage others’ perceptions. Negative interpretation by others, and the unpleasant feelings associated with those people’s responses, was highlighted by participant 10 who wrote: “People who want to be friends with me can feel unacknowledged because my needs for interaction are less. want to be friends but don't want to live in other people's pockets”. Participant 2 also expressed an awareness of others not understanding the introverted choice to be alone over being social:

> The main challenge is ensuring that I spend enough time alone that I can enjoy social situations when they occur. This can be hard to explain to others when it means I have to turn down social engagements without … supposedly valid reasons.

This participant’s reference to “without supposedly valid reasons” is indicative of their awareness that what is so important and valuable to them, could be likely to be devalued by others. Such a difference in valuing time alone, as opposed to preferring more frequent contact, seems to underly interpersonal misunderstandings experienced by introverts.

8.1.5 Higher Order Theme: Impact on Friendships

Just under half (40%) of participants described how their introversion affected the formation and maintenance of friendships. While there was reference to challenges forming

new friendships, introversion was considered to contribute to strong and enduring friendships.

The challenges of developing new friendships emerged as a notable impact of introversion on friendships. For example, participant 4 wrote:

> I believe I am an introvert. I find it challenging to initiate and maintain friendships because I am not prone to actively seek out people. Also, I'm quite bad at small talk - I don't really enjoy going through the standard questions people ask each other(e.g., 'how's your job/life', 'what have you been doing later')…

This quote indicates that, establishing friendships with new people is a challenge that can be associated with this personality trait. One aspect of introversion that participants identified as contributing to this challenge was their own preferences for how to interact, such as disliking small talk, or not needing as much contact. Participant 8 wrote that being an introvert "makes it difficult to get to know others". Difficulties getting to know others can arise from introverts' lesser need for frequent or prolonged social contact, from their discomfort with new people or in new situations, and from other people misunderstanding introverts' reduced pursuit of social engagement.

Even so, participants also recognised introversion can be beneficial for friendships. They identified strength in maintaining friendships as an advantage of introversion. The emphasis here was on the maintenance of close friendships over time. participants recognised this an advantage of their friendship, even if initially connecting with people and establishing new relationships was a challenge. This is illustrated in participant 4's response. Following on from the quote above, they wrote:

> … Although the advantages are that I find I tend to become close friends with people, as the friendship does not always rely on constant social contact. For example, I sometimes go months or years without contacting one of my oldest friends (especially

since he no longer lives in Australia). Although, each time we talk it's as if no time has passed.

This theme, combined with the previous theme of challenges developing friendships, may be indicative of a tendency of introversion to contribute to deep enduring relationships, which can be established in spite of the slow burn when forming relationships.

8.1.6 Higher Order Theme: Importance of Alone Time

A higher order theme regarding the importance of alone time emerged from participants' descriptions of their own introversion. This theme was evident in just under a third (30%) of participants' responses when as asked whether they were introverted. They wrote about the need to have time and space alone. The time alone and interpersonal interaction were described as reciprocal, with alone time creating both capacity for social interactions, and opportunity for recovery. Creating interpersonal capacity through alone time can be seen in participant 2's response. They described the importance of "ensuring [they] spend enough time alone that [they] can enjoy social situations when they occur". Alone time as an opportunity for recovery is evident in participant 3's response. They wrote "I need to balance time with other people with time alone to re-energise". Participant 5 echoed this and mentioned that time alone was not always easy to come by, saying "I like my personal space and sometimes it is hard to get the quiet time alone". It is interesting to note that when participants described being alone – there was also clear reference to spending time with others. Alone time seems not to be preferred to the exclusion of interpersonal interaction, but rather as a necessary counterpoint to, and facilitator of, connecting with others.

8.1.7 Higher Order Theme: Natural Disposition

While only 1 participant (10%) referred to what was natural for them, the sense of introversion as a natural disposition was expressed in additional domains of inquiry explored in this thesis. Therefore, this theme has been included in these findings.

When asked if they were an introvert or an extravert, participant 1 described responded by describing their experience of introversion in the following way:

> I see myself as more of an introvert, I don't like being the centre of attention it makes me feel uncomfortable, I find myself forcing to speak at times where it's not natural and I always feel something holding me back when I speak.

This sense of certain behaviours or experiences as inherent to introverted disposition recurred both explicitly and implicitly throughout participants' responses across a range of domains. This aspect of the introvert experienced will be considered further in Chapter 12 below which presents themes that were found to recur across multiple domains.

8.1.8 Summary Table for Domain 1: Self-Identification as Introverted

Table 8.1 summarises the higher order themes that emerged in Domain 1: Self-identification as Introverted.

Table 8.1

Domain of Inquiry 1: Self-identification as Introverted – Higher Order Themes

Higher Order Themes	Endorsed by %	Participants with this theme
- Self-reliance	70%	2, 3, 4, 5, 7, 9, 10
- Variation in experience of Introversion	60%	1, 2, 3, 7, 9, 10
- Interpersonal Style	60%	1, 2, 3, 4, 7, 9
- Awareness of Social Expectations to be Different	50%	1, 4, 7, 10
- Impact on Friendships	40%	2, 4, 8, 10
- Importance of Alone-time	30%	2, 3, 5
- Natural Disposition	10%	1

8.2 Domain of Inquiry 2: Acting as Extraverted

As part of this study, participants were asked to write about when they acted as extraverted. All of the participants included responses related to this domain. Higher order themes that emerged from participants' responses related to reasons for behaving as extraverted, to the internal experience of behaving as extraverted, and to behaviour that was associated with extraversion.

8.2.1. Higher Order Theme: Reasons for Behaving as Extraverted

All participants included reasons for behaving as extraverted in their responses, indicating that either it comes naturally in some circumstances, and/or that it is required in other circumstances.

Over half (60%) of participants referred to circumstances when it can come naturally to act as extraverted. These circumstances related to the interpersonal context, being inspired by a topic or purpose, or responding the requirements of a situation.

Positive interpersonal factors seemed to be contributors to participants' acting as extraverted. For example, participant 1 wrote: "Around my friends I act extraverted as I am more comfortable". Participant 9 also described their behaviour being more extraverted around people they know: "I can come across as hilariously funny and entertaining if I have a - small audience of people I know". For participant 6, other people's behaviour also was a positive prompt for a shift in their own behaviour. The indicated that they act as extraverted "When [they] see other people enjoying themselves". In addition, to comfort and positivity, passion and enthusiasm contributed to extraverted behaviour. For participant 4, it wasn't necessarily other people that contributed to extraverted behaviour coming naturally. For them familiarity and passion for the topic of conversation was a factor contributing to acting as extraverted, as can be seen from the following statement: "I often act more extroverted when

the conversation is on a topic that I'm passionate about". It seems that introverts' behaviour is highly influenced by context and the effect of this on their inner experience and affective state. When the emotions they are experiencing are primarily positive (such as feeling comfortable, or enthusiastic), behaving as extraverted may come naturally to some introverts.

In addition to describing positive aspects of contexts when it comes naturally to act as extraverted, almost three quarters of participants (70%) wrote that in some situations, they act as extraverted because it is required. Participant 2 stated this clearly, writing: "sometimes for work or volunteer commitments I am required to be more social". Participant 3 clarified why one might feel required to act extraverted. When explaining when they might act extraverted, participant 3 stated: "When I'm trying to impress people I may act as though I am more confident than I am". In this statement, the contrast between the external behaviour and internal experience is also evident. Introverts are able to choose to act extraverted when necessary, but this can create an awareness of dissonance within them, as elaborated below.

8.2.2 Higher Order Theme: Internal Experience of Behaving as Extraverted

The theme of the internal experience of acting as extraverted was evident in most participants' (80%) responses. They described how it feels to behave as extraverted (50%), a sense of faking it (40%), and consequences after acting extraverted (40%).

Regarding the feelings participants described experiencing when behaving as extraverted, a sense of discomfort was evident in several responses. For example, participant 5 stated: "it takes a lot more effort to be an extrovert than my usual and comfortable introvert character". This sense of discomfort was also evident in participant 8's response: "This makes me extremely uncomfortable, makes me think I'm acting a fool". Participant 7 also referred to the challenge of acting as extraverted, writing: "[It] can be challenging if not in the mood".

These responses indicate the extra effort it can take for introverts to act extraverted, effort that is experienced as unpleasant.

Nevertheless, acting extraverted was not only associated with negative feelings in participants' responses. For some, acting extraverted can be stimulating and enjoyable, as can be seen in participant 9's statement that they "get a real buzz out of this…". Even while stating that acting extraverted can feel positive, participant 9 wrote about a not feeling authentic when acting extraverted: "but essentially I am 'on stage' when I do this". This second statement from participant 9 demonstrated the sense of faking it that was evident in almost half of participants' responses. This can also be seen in participant 4 writing that "to everyone else I may seem like an extrovert", and the sense of faking it is also in a report from participant 3: "I may act as though I am more confident than I am". Participant 8, as referred to earlier, also wrote of "acting" when they described thinking that they were "acting a fool" when behaving as extraverted. For some, such as participant 9, there is a sense of enjoying faking it and acting extraverted, for others, such as participant 8, this experience of faking extraverted behaviour is described as quite unpleasant.

Almost a third (30%) of participants' descriptions of behaving as extraverted included subthemes related to consequences of acting extraverted. While there was occasional reference to positive consequences (such as participant 9 getting a "buzz" out of it), many participants described conditional consequences. For example, participant 2 explained:

> If I am in a small (3-10 people) group of people I consider close-ish friends I can often be more talkative and more involved. I can end up the centre of attention fairly often in these situations and I don't find it too tiring. Other than that sometimes for work or volunteer commitments I am required to be more social that I normally would with people I don't know but I can manage it pretty well if I have time later to relax by myself.

Other participants referred unequivocally to negative consequences of behaving as extraverted. Participant 10 wrote: “Yes I can [act extraverted] if I have to, eg when I have to host something, but it takes it out of me. I can be sick for days afterwards”.

8.2.3 Higher Order Theme: Behaviour Associated with Extraversion

It is interesting that while all participants wrote about times when they behave as extraverted, only half explicitly described particular behaviour that they considered extraverted. References to particular behaviours clarified what participants considered to be extraverted characteristics. For example, participant 1 described “forcing [themselves] to speak” and participant 2 wrote, “I can often be more talkative and more involved I can end up the centre of attention” and included “being more social” in their description of behaving as extraverted. Participant 3 wrote of acting “more confident”, and participant 4 described having to “tell [people] what to do” at work. Behaviours related to oral expression, sociability and assertiveness were key aspects of participants’ reference to their own behaviour when acting as extraverted.

8.2.4 Summary Table for Domain 2: Acting as Extraverted

Table 8.2 lists the themes that emerged from participants’ responses to questions for Domain 2: Acting as Extraverted.

Table 8.2

Domain of Inquiry 2: Acting as Extraverted – Higher Order Themes.

Higher Order Themes	Endorsed by %	Participants with this theme
- Reasons for behaving as Extraverted	100%	All
- Internal Experience	80%	2, 3, 4, 5, 7, 8, 9, 10
- Behaviour associated with extraversion	50%	1, 2, 3, 4, 9

8.3 Domain of Inquiry 3: Family of Origin

All participants responded when asked to reflect on the temperament (introversion - extraversion) of their family of origin. Over half (60%) of the participants wrote that in the family they came from, all family members were introverted. The remainder indicated that their family of origin had been mixed. No participants reported coming from a fully extraverted family. Themes that emerged from these responses related to the impact on the participant, and to family style.

8.3.1 Higher Order Theme: Impact on the Participant

Close to three quarters (70%) of participants described the impact of their family's temperament on them. Some reflections included noting that their family's style suited them at the time. Participant 4 wrote they "got to play on the computer a lot", and participant 7 simply stated "It was good". Other responses included reference to how family temperament may have contributed to characteristics participants developed. For example, participant 4 reflected that while the time they spent playing on the computer suited them, it "probably didn't help [their] social skills at all". Participant 9 also wrote of the influence of their family's introverted characteristics on their own traits: "Introverted. This probably was the model for me. I would have liked a demonstrative talkative family but didn't have one. I learned to keep my thoughts and feelings to myself". These two examples reveal a sense that some aspects of introversion were gained from the family of origin.

Some participants reflected on their relationship with particular family members. This can be seen in participant 10's description of the family they grew up in:

> Mum and dad and me [are] all introverted. My little brother is an extrovert! And not so little any more. He is hugely loved and admired by us all but I always feel I have to prepare for his visits by getting together some interesting stories to tell him, so he doesn't get bored.

Here we can see the participants' love for this extraverted brother combined with a level of anxiety regarding interacting with and entertaining him.

8.3.2 Higher Order Theme: Family Style

The higher order theme of a Family Style was evident in almost half (50%) of participants' responses. This related to descriptions of the family culture or atmosphere that they grew up in. In most cases, participants' descriptions of their family style were positive, and indicated a good fit between the individual and their family of origin. For example, writing about a family where everyone was introverted, participant 3 wrote, "We all tended to appreciate alone time. Our home was never too loud". On the other hand, a sense that a different kind of family might have been preferrable was sometimes evident, as can be seen in the participant 4's reference (above) to their family's style not helping social skills development, and participant 9's expressed wish that their family had been more "demonstrative [and] talkative". Three participants stated explicitly that the atmosphere in their family of origin contributed to their own introversion.

8.3.3 Summary Table for Domain 3: Family of Origin

Table 8.3, below, lists the themes that emerged from participants' responses to questions for Domain 3: Family of Origin.

Table 8.3

Domain of Inquiry 3: Family of Origin - Higher Order Themes

Higher Order Themes	Endorsed by %	Participants with this theme
- Impact on Participant	70%	1, 2, 4, 7, 8, 9, 10
- Family Style	50%	2, 3, 4, 8, 9

CHAPTER 9

PHASE II STUDY 3: FINDINGS FOR DOMAINS FOUR, FIVE AND SIX - EDUCATION, OCCUPATION AND RECREATION

9.1 Domain of Inquiry 4: Education - Memories of School

For this domain of inquiry, participants were asked to reflect on their experiences when they were at school. Participants were asked about subdomains of school experiences included Relationships at School, Interaction between Introversion and Experiences at School, Positive Experiences at School, and Difficult Experiences at School. The themes that emerged from each of these subdomains of inquiry are described in below.

9.1.1 Subdomain 1: Relationships at School

Almost all participants (90%) responded to the questionnaire prompts regarding interpersonal relationships at school. Given that participants did not always address all aspects of the questionnaire, that nine out of ten participants included information about memories of relationships at school indicated the importance of interpersonal interactions to these participants. Higher order themes arising in this subdomain related to close friendships, interactions with peers, and attitudes towards groups. The following description of these higher order themes will include reference to subthemes where relevant.

9.1.1.1 Higher Order Theme: Close Friendships

Nine out of the ten participants described aspects related to the higher order theme of close friendships when writing about what they remembered of their school experiences.

Three subthemes were identified related to friendships. These subthemes were Depth Not Breadth, Importance of Friends, and Similarity of Friends.

9.1.1.1.1 Sub-theme: Depth Not Breadth. This subtheme includes participants' descriptions of having small numbers of close friends, rather than larger numbers of less intimate friendships. For example, participant 5 wrote: "I usually had 1 or 2 close friends. I was usually involved in the quiet group, not so adventurous group but close friendships". Similarly, participant 6 stated: "I kept to myself and only had a few close friends". Participants conveyed a sense of the importance of closeness in friendships, but not a need for large numbers of friends.

9.1.1.1.2 Sub-theme: Importance of Friends. Participants indicated that having a lot of friends was not necessarily important. For example, participant 4 wrote: "Although I had fewer friends during high school I'm not sure being an introvert or extrovert would have changed my life. On the whole I would have just gotten poor grades with more friends". However, having particular close friendships appeared to be vital. Participant 10 only wrote one sentence about school, which was: "School - hated the days when my best friend wasn't there". Even in this brief response, the significance of close friendships can be clearly seen.

9.1.1.1.3 Sub-theme: Similar Friends. Participants emphasized that similarity was important to them when forming friendships. Finding commonality with other facilitated connection and comfort at school for the self-identified introverts in this study. For example, participant 9 wrote: "When I found a friend with whom I had a rapport, I was more comfortable". Participant 8 described getting into trouble with like-minded friends. This may indicate a liveliness was associated with being connected with similar others: "At school I always kept out of trouble, however, I often hung out with like students and ended up getting into a bit of trouble on occasions". A similar sense of energy can be seen in participant 2's description of seeking to entertain their small group of friends:

> … my 2-3 best friends […] were fairly similar to me. I could be a bit of a class clown but always got a lot of leeway from teachers due to my grades. I always did it to make my friends laugh not to gain the attention of the class …

Having similar friends was important for participants' wellbeing, self-confidence, and seemed to enable participants' vitality to emerge. It can be seen in participant 2's statement that peers in general were less important, but that entertaining their small group of best friends was a motivator during their time at school. The experience of, and attitude towards, interactions with peers was a subtheme evident in other participants' responses as well.

9.1.1.2 Higher Order Theme: Interactions with Peers

This theme includes aspects related to how participants recalled getting along with peers at school. Close to half (40%) of the participants included reference to peer interactions in their responses. Of these, three out of four participants referred to getting along well with peers. These participants recalled getting along reasonably well with peers. For example, participant 3 wrote: "I tended to get along with most people I was able to relate to most people could move between social groups. I wasn't overly popular, but people seemed to like me enough". This was similar to participant 7's recollection of peer relationships at school: "Was easy to fit in despite being less extroverted than some". Participant 6's description of peer interactions was neutral, they wrote "I wasn't bullied, but wasn't one of the cool kids". This participant emphasised that they hadn't been bullied – almost as if to counter the expectation that they would have been victimised in this way. Bullying was also mentioned by participant 9, who referred to negative peer interactions. They recalled being teased: "School was often difficult as I wore glasses from the age of 6 and was teased. However, I was clever and created my own niche/comfort zone. I used humour as a defence mechanism". It is interesting to note that, even though describing a negative aspect of peer interactions,

participant 9's reflection conveys effective coping and a lively spirit similar to participants 2 and 8 in the section above.

When referring to broader peer interactions, beyond the immediate friendship group, participant 2 referred to introversion as protective against difficult aspects of these relationships at school: "Being introverted helped me avoid the social engineering that wrecks school for a lot of people because I wasn't concerned with people outside of my 2-3 best friends liking me".

Overall, while there was diversity in the experience of peer interactions recalled by participants, they described navigating relationships with their schoolmates successfully.

9.1.1.3 Higher Order Theme: Attitude Towards Groups at School

Close to a third of participants (30%) wrote about their attitudes towards groups when reporting their experience of school. This included stating that they "Didn't like talking in large groups" (participant 5), yet on the other hand small groups, particularly those that were task focussed or involved close friends were described positively. Participant 5 who didn't like talking in large groups, did like "working on group projects". Part of the difficulty with large groups related to a desire to avoid attention, as can be seen in participant 3's statement: "I was confident with individual tasks and in groups of close friends but didn't like drawing too much attention to myself". References to disliking large groups and being uncomfortable with attention recurred across a range of the domains of experience explored in this study. Findings related to such recurring themes identified across domains of inquiry are presented in the in Chapter 12 below.

9.1.2 Subdomain 2: Interaction between Introversion and Experiences at School

In this subdomain participants were asked whether being introverted affected their school experience. Themes that emerged in participants' responses related to being quiet, balancing school and home, advantages of introversion, and how school experiences contributed to their introversion. The themes are described in more detail below.

9.1.2.1 Higher Order Theme: Quiet

This theme encompassed participants' descriptions of themselves or their behaviour as quiet or reserved. Just under two thirds of participants (60%) expressed this theme. For example, participant 1 stated clearly that introversion was the reason for their reticent behaviour at school: "My introverted side really came out during class time. I held back to ask questions". Several participants described themselves as having been quiet during their school years, including participant 3 who wrote "I was a quiet person", and participant 5 who recalled being "usually involved in the quiet group". Some participants described quiet behaviour, as did participant 6 who stated "I kept to myself and only had a few close friends. I never rocked the boat". Participants seemed to identify being quiet as a result of introversion.

9.1.2.2 Higher Order Theme: Balance with Home

This theme was apparent in just under a quarter (20%) of participants' responses. They recalled the importance of balancing the activity of days at school with quieter time at home. For example, participant 2 stated: "I never did much outside of school hours, so I got plenty of time to myself then", and indicated that it was this time to themselves that enabled them to be active and social while at school.

9.1.2.3 Higher Order Theme: Advantage of Introversion

When describing the impact introversion had on their school experience, 20% of participants recalled advantages of introversion. They reflected that it helped minimise difficult social aspects of school and allowed them to stay out of trouble. Participant 2 referred to both of these, writing:

> Being introverted helped me avoid the social engineering that wrecks school for a lot of people because I wasn't concerned with people outside of my 2-3 best friends liking me and they were fairly similar to me. I could be a bit of a class clown but always got a lot of leeway from teachers due to my grades. I always did it to make my friends laugh not to gain the attention of the class so it wasn't too detrimental to the classroom environment (in my opinion anyway).

Participant 8 also noted the benefit of introversion: “Being introverted did tend to keep me out of trouble, generally speaking”.

9.1.2.4 Higher Order Theme: School Contributed to Introversion

Not only was introversion seen as contributing to behaviour at school, experiences at school were also considered to have contributed to the development of introversion. Participant 5 wrote: “I think moving around as a child may have contributed to being more introverted because when we moved and started at a new school, we instantly became the centre of attention and I found that difficult”. While only this one participant mentioned this contribution of school experiences to introversion, this comment indicates that a causal effect may be an aspect of the interaction between school experiences and introversion for some people.

9.1.3 Subdomain 3: Positive Experiences at School

Participants were also asked what they liked about school. Three themes were identified in participants' descriptions of positive experiences at school, namely were academic benefits, general enjoyment of school, and interpersonal positives.

9.1.3.1 Higher Order Theme: Academic Benefits

This theme encompasses pleasure in academic aspects of schooling, including academic success. Just under half (40%) of participants expressed this in their responses. For example, participant 3 wrote: "I liked anything I was good at in school. Things I knew I could do well at like particular sports or subjects gave me confidence."

9.1.3.2 Higher Order Theme: General Enjoyment of School

Close to a third (30%) of participants recalled generally enjoying school. For example, participants 2 and 6 both stated simply: "I enjoyed school". These responses seem to indicate that, in spite of extensive interpersonal demands, school can be an enjoyable experience for introverts.

9.1.3.3 Higher Order Theme: Interpersonal Positives

Some (30%) of the participants recalled broad interpersonal aspects of their school experience as being positive. This included general references to staff, peers and friends. This theme was clearly illustrated by participant 7's recollection that "School was sociable, easy going, mostly friendly. Fairly good teachers and good friends". Positive interpersonal experiences, including those beyond a few close friendships, were important aspects of the school experience to several study participants.

9.1.4 Subdomain 4: Difficult Experiences at School

Participants were asked what they found difficult at school. Negative experiences that participants recalled at school gave rise to two higher order themes. These being difficult activities and attracting attention.

9.1.4.1 Higher Order Theme: Difficult Activities

This theme included activities that participants recalled as being difficult because they did not like them or because they were not good at them. Several participants (40%) included descriptions of experiences related to this theme and at times wrote about the reasons certain activities were difficult. Participant 3 wrote: “I avoided things I wasn't so good at”, while participant 4 recalled “I was not given much direction at school, so I found it difficult to do well”.

9.1.4.2 Higher Order Theme: Dislike of Attention

Just under a quarter (20%) of participants included aspects related to not liking being paid attention when describing what they remembered was difficult about school. This included attracting attention in large groups, or particular classes or subjects that involved being the focus of attention. These different aspects can be seen in participant 5’s recollection that they “didn't like public speaking, talking in large groups, acting, being the centre of attention”. This dislike of attention is similar to themes evident in other domains of inquiry in the questionnaire, and may reflect an integral aspect of introversion. Recurring themes such as this are presented in Chapter 12, and their implications are discussed in Chapter 13.

Summary Table for Domain 4: Education - Memories of School

Table 9.1 presents the higher order themes for the subdomains of inquiry related to Domain 4 Education - Memories of School.

Table 9.1

Domain of Experience 4: Education - Memories of School. Subdomains and Higher Order Themes

	Subdomains	Found in % of responses	Participants with this theme
Higher order themes	Relationships at School	90%	
	- Close Friendships	90%	2, 3, 4, 5, 6, 7, 8, 9, 10
	- Interactions with Peers	40%	3, 6, 7, 9
	- Attitude towards Groups at School	30%	2, 3, 5
	Interaction between Introversion & Experiences at School	70%	
	- Quiet	60%	1, 2, 3, 5, 6, 8
	- Balance with Home	20%	2, 4
	- Advantage of Introversion	20%	2, 8
	- School Contributed to Introversion	10%	5
	Positive Experiences at School	60%	
	- Academic Benefits	40%	2, 3, 5, 9
	- General Enjoyment of School	30%	2, 6, 7
	- Interpersonal Positives	30%	2,5, 7
	Difficult Experiences at School	40%	
	- Difficult Activities	40%	3, 4, 5, 9
	- Dislike of Attention	20%	3, 5

9.2 Domain of Experience 5: Occupation

For this domain participants were asked about their occupation, that is, work and / or study. Participant 1 only wrote “not sure” as a response to this domain. All the other participants provided rich information in their responses. Subdomains explored in the questionnaire included the Occupational Focus, Background to Occupation, Good Things about the Occupation, the Impact of Introversion (on occupation), and Challenges of the Occupation. The themes that emerged in participants’ responses for each subdomain are described below.

9.2.1 Subdomain 1: Occupational Focus

Data in this subdomain was generated by participants in response to being asked whether they worked or studied and, if so, what they did. Only one of the participants did not specify an occupational field. Higher order themes identified in this subdomain were interpersonal / service orientation, lifelong learning and a focus on knowledge.

9.2.1.1 Higher Order Theme: Interpersonal / Service Orientation

An important higher order theme evident in the occupational foci of participants was work/study with an interpersonal or service orientation. Almost all (80%) participants were engaged in a service orientated occupation. They were engaged in helping/caring fields of work, including health care (N=2), education (N=4) and the police force (N=2). One participant, participant 3, was involved in two fields of occupation. They worked in an educational role while training for a career move into a health profession. All the helping/caring occupations mentioned by participants involve high levels of, at times intense, interpersonal interaction. An additional participant, participant 7, worked in media. As a result, they also had significant interpersonal involvement in their work. Interviews for key

stories, and “get[ting] to talk to many interesting people” was an important aspect of their job. It is interesting that although introverted, participants were highly involved in interpersonal careers.

9.2.1.2 Higher Order Theme: Lifelong Learning

Almost two thirds of participants (60%) referred to some form of ongoing learning in their responses. This included descriptions of returning to formal study, statements of a love of learning, or reference to valuing learning when describing other experiences. Participant 3 described their return to study and love of learning:

> I am currently studying Exercise Science at University. I have always had a passion for sport and exercise and after heading in a different direction for a couple of years I came back to what I was really passionate about. I am really loving the course.

Participant 10, who was retired, also indicated a value of learning, writing: “I enjoy reading, learning and writing”. Participant 8’s value of learning was conveyed in a sense of regret at missed opportunities to learn. They wrote “I tended to study alone, which makes it more difficult” and, in a later response, came back to the same idea: “Spending time alone means that I don't learn about others and miss out on a lot of what others could teach me”. Participant 8’s responses indicated a valuing of both formal and informal learning across time and contexts.

9.2.1.3 Higher Order Theme: Focus on Knowledge

Half (50%) of participants’ occupations involved a strong occupational focus on knowledge. Participant 7 expressed taking pleasure in knowledge when writing about their occupation in “Journalism. Studied media studies and politics enjoyed writing and thinking about public affairs”. Other participants were also involved in knowledge-focussed fields

such as education and publishing. Participant 8 wrote of the pleasure in applying knowledge: “I like developing content and applying my language skills”.

9.2.2 Subdomain 2: Background to Occupation

This subdomain focussed on how participants came to be involved in their occupation. One higher order theme arising from participants’ responses elated to strong enthusiasm for their chosen field.

9.2.2.1 Higher Order Theme: Enthusiasm for the Occupation

Enthusiasm and passion for their chosen career or course was evident in over three quarters (80%) of participants’ responses. For example, participant 4 wrote: “My course right now is really interesting, and I feel that I'm a better person in general because of it, regardless of whether I get a job at the end”. The enthusiasm for the course here went beyond practical matters of money or a qualification. More wholistic considerations related to personal developments contributed to enthusiasm for the area of occupation. Similarly, participant 5 described a range of reasons for their passion their career, reporting:

> I enjoy the challenge of nursing. I enjoy helping people and talking with people. Being the nurse opens up conversations. I don't have to make up conversation, I have a job and a role talking with people and I enjoy the work.

Participant 6 reported that they were no longer able to work due to ill-health, but even so they clearly expressed their passion for their occupation, stating: “I used to be a Police officer and had always wanted to be one. I loved every aspect of my job”. In contrast, participant 10’s enthusiasm for their occupation was less direct, but it was still evident. It can be seen in their willingness to extend themselves, in order to work in their chosen occupation: “I am retired from an academic career. In many ways I have had to work very hard to overcome

introversion tendencies so that I can contribute in groups. It is always a challenge, but I wanted to do it". Enthusiasm for a particular field seemed to be a strong motivator for these participants and in some cases contributed to a drive to extend themselves beyond their natural, comfortable introverted behaviour.

9.2.3 Subdomain 3: Good Things about Occupation

Participants were asked to identify what they liked about their job or course for this subdomain. Three higher order themes were evident in their responses. These related to client relationships, pride in occupational skill, and the intellectual stimulation gained from work.

9.2.3.1 Higher Order Theme: Relationships with Clients

A theme of relating to clients emerged in this subdomain focussing on positive aspects of participants' occupation. The word client is used here to include the people on the receiving end of participants' professional role, which often involved help or care as an aspect of the work. Clients included people such as patients, students, service users. Almost two thirds (60%) of participants included benefits regarding relating to clients. Participant 5 wrote of the benefit of their mental health nursing job, which provided structure and context for getting to know clients. Participant 5 wrote, "In my role I have regular 1:1 with patients, I enjoy the intimacy of working in small groups and [with] individuals". Participant 3 also referred to getting to know the child clients in their current work in childcare, writing: "I love spending time with children. They are very honest and easy to read. I love getting to know each child as an individual". Participant 8 seemed to surprise themselves with their reflection that relating to the people they assisted in their role as a police officer was a key benefit. Participant 7 reflected that "Oddly enough I enjoy dealing with other people and solving their

problems". This theme is another example of valuing interpersonal aspects of work that was evident in study participants' descriptions of their occupational experiences.

9.2.3.2 Higher Order Theme: Pride in Occupational Skills

Over half (60%) of the participants indicated that strong occupational skills, together with being able to take pride in them, were beneficial aspects of their occupation. For example, participant 9 wrote: "I like having built up a great professional reputation". Satisfaction in one's work and pride in the related skills were clearly valued by these participants.

9.2.3.3 Higher Order Theme: Intellectual Stimulation

A theme related to intellectual stimulation emerged from participants' responses. Similar to the previously mentioned theme, over half (60%) of the participants referred to intellectual stimulation as a positive aspect of their chosen occupation. This was true for both study and work in their chosen fields. For example, participant 7 wrote that they "enjoyed writing and thinking about public affairs", thus making a direct statement about finding pleasure in using their intellect. Regarding study, participant 3 wrote: "I tend to do better at subjects that involve a bit more independent thought". This also indicates a valuing of thinking and intellect.

9.2.4 Subdomain 4: Impact of Introversion on Occupation

Participants were also asked to consider the effect that introversion had on their occupation. Two higher order themes emerged in analysis of their responses. These were interpersonal effects of introversion and interaction with occupational tasks.

9.2.4.1 Higher Order Theme: Interpersonal Effects

This higher order theme included aspects of participants' responses conveying how their self-identified introversion affected interpersonal interactions in their work or study. Participant 7 described their experience of journalism, stating: "It's an interesting, varied and demanding job. Get to talk to many interesting people. Being naturally introverted can make chasing people for a story more difficult". This statement exemplifies some participants' experience that introversion contributed to some interpersonal tasks at work being particularly challenging. Participants also noted that they needed to put their introverted nature aside at times in order to behave more extraverted in their interactions at work. For example, participant 5 wrote: "to approach new patients all the time and attempt to build relationships takes more extroverted characteristics". Participant 8 also wrote of introversion's impact on particular interpersonal work and study tasks: "I don't like having to take charge, if there's someone I'm with who is extravert I would rather be behind them. Being introverted means that I tended to study alone which makes it more difficult". Providing a different perspective on introversion and interpersonal aspects of their work, participant 3 described a preference for individual or small group interactions, writing:

> I also work in child care. I love spending time with children. They are very honest and easy to read. I love getting to know each child as an individual. I prefer smaller groups though as it gets a bit loud and full on when there are 20+ screaming kids.

Introverts in this study recognised that introverted characteristics had an impact their interpersonal preferences and experiences in their occupation.

9.2.4.2 Higher Order Theme: Interaction with Occupational Tasks

Participants' responses also included themes related to the interaction between introversion and particular tasks or approaches to work. This theme emerged from almost

three quarters (70%) of participants' responses. For some, introversion was helpful. For example, participant 4 wrote: "I feel that being introverted has allowed me to sit on a computer for long periods of time to study. This has really helped me, but also I actually enjoy doing it". Participant 10 also noted that: "Being introverted may have helped me in areas such as concentration or persistence". On the other hand, the negative impact of introversion was noted by participant 8, who wrote: "Being introverted means that I tended to study alone which makes it more difficult". The tendency to access extraverted aspects of themselves for work tasks was also considered by participants. For example, participant 6 stated: "I don't think being an introvert had any real impact on my job. I suppose the job bought out my extraverted side".

Two subthemes emerged related to the higher order theme of the interaction of introversion with occupational tasks: the effort to meet requirements of tasks, and preferred working style.

9.2.4.2.1 Sub-theme: Effort to Meet Requirements. This subtheme related to the sense that, as introverts, almost a third (30%) of participants felt they had to put in particular effort to meet occupational requirements. This is clearly evident in participant 10's statement that: "in many ways I have had to work very hard to overcome introversion tendencies so that I can contribute in groups. It is always a challenge, but I wanted to do it". Other participants referred explicitly to needing to act extraverted. This can be seen in participant 5's writing: "I often become more extroverted at work, to approach new patients all the time and attempt to build relationships takes more extroverted characteristics".

9.2.4.2.2 Sub-theme: Preferred Working Style. This subtheme emerged from participants' references to aspects of their preferred ways of working, and how they preferred to communicate at work. Almost one third of participants (30%) reported preferring to work on their own or with small numbers of people. Some wrote of working independently, such as

participant 3 who wrote: “I would much prefer to do more work on my own”. On the other hand, participant 5 wrote of enjoying working with others, but in small numbers: “I enjoy the intimacy of working in small groups and individuals”. Another aspect of working style was evident in participant 9’s response: “I express myself extremely well in writing and prefer email to phone”.

9.2.5 Subdomain 5: Occupational Challenges

For this subdomain participants were asked to reflect upon aspects of their course or job that they did not like. There were three higher order themes identified across participants’ responses here, namely interpersonal challenges, stressors, and tiring aspects of the occupation.

9.2.5.1 Higher Order Theme: Interpersonal Challenges

Just under two thirds of participants’ responses (60%) in this subdomain of inquiry related to higher order theme of interpersonal challenges in their occupation. These interpersonal challenges were further divided into three subthemes, which related to discomfort in groups, assertiveness, awareness of social expectations, and others’ behaviour.

9.2.5.1.1 Sub-theme: Discomfort in Groups. This subtheme was evident in close to one third (30%) of participants responses. It included references to disliking working in groups during course work, as well as challenges related to working with and having a voice in group discussions in the workplace. Regarding study related group work, participant 3 wrote: “I really hate group assignments. I would much prefer to do more work on my own”. Participant 10 referred to difficulty in adding their voice to group discussions at work, stating: “I have had to work very hard to overcome introversion tendencies so that I can contribute in groups. It is always a challenge, but I wanted to do it, no- one forced me”.

9.2.5.1.2 Sub-theme: Assertiveness. This subtheme involved references to discomfort or difficulty with assertiveness and leadership at work. Just under one third (30%) of participants included aspects related to this in their responses. For example, participant 7 described the challenge of the bold pursuit that was necessary at times in journalism: “Being naturally introverted can make chasing people for a story more difficult”. Participant 8 also wrote of discomfort with assertiveness at work – in this case related to leadership: “I don't like having to take charge, if there's someone I'm with who is extravert I would rather be behind them”. Participant 9 also wrote of finding leadership and assertiveness challenging, stating: “I don't always like managing people (authors) as I hate the possibility of confrontation”.

9.2.5.1.3 Sub-theme: Adjusting to Social Expectations. One fifth (20%) of participants indicated that an awareness of social expectations at work could prove challenging. This can be seen above in participant 10’s description of the necessity of changing their behaviour in order to be able to contribute to the group discussions integral to their work. In addition, Participant 2 indicated an awareness of social expectations and reported adjusting their own behaviour in order to meet such expectations, specifically regarding social interaction. They wrote: “I dislike when the teaching staff act socially like students, and I often like to spend my time off working at my desk rather than socialising but not to the extent that I seem antisocial”. By referring to adapting their behaviour in order to not “seem antisocial”, participant 2 illustrated an awareness of, and adaptation to, social expectations at work.

9.2.5.2 Higher Order Theme: Stressors

Just under half (40%) of participants’ responses included references to stress in occupation. Such stress involved factors such as interaction with many people, high

stimulation due to noise or busy-ness, and time pressure or deadlines. For example, the stressful impact of the combination of noise and needing to mix with many people is highlighted by participant 3 who wrote of their childcare work that “it gets a bit loud and full on when there are 20+ screaming kids”. Participant 5 also described multiple stressors, including busy-ness and time pressure, in nursing work: “I don't like giving hand over. I don't like when the ward gets very busy and there isn't enough time to finish all my jobs properly”. Time pressure was also included by participant 7, who simply wrote “Dislike = pressure / deadlines”.

9.2.5.3 Higher Order Theme: Tiring Aspects of Occupations

The draining effect of stressful aspects of their occupation was specified by participant 2 when they stated that, “Teaching a class can be tiring as I am the centre of attention a lot and interacting with a lot of students”. In this quote the identification of interpersonal aspects of the work as contributing to fatigue can be seen. While only one person highlighted this in relation to occupational challenges, the presence of this theme may indicate that for some introverts, interpersonal aspects of their occupation could be draining. In addition, themes related to fatigue associated with interpersonal experiences emerged in other domains of experience which suggests that this could be an important aspect of the introvert experience. As mentioned above, themes that recur across several domains of inquiry will be presented in Chapter 12 of this thesis.

9.2.6 Summary Table for Domain 5: Occupation

Table 9.2 includes the higher order themes for each of the subdomains explored in Domain 5: Occupation.

Table 9.2

Domain of Experience 5: Occupation - Sub-domains and Higher Order Themes

Sub-Domains	Found in % of responses	Participants with this theme
Higher order themes		
Occupational Focus	90%	
- Interpersonal / Service Orientation	80%	2, 3, 4, 5, 6, 7, 8, 9
- Lifelong learning	60%	2, 3, 4, 9, 8, 10,
- Focus on Knowledge	50%	2, 3,7, 9, 10
Background to Occupation	80%	
- Enthusiasm for the Occupation	80%	2, 3, 4, 5, 6, 7, 8, 9
Good Things about Occupation	80%	
- Relationships with Clients	60%	2, 3, 5, 7, 8, 9
- Pride in Occupational Skills	60%	2, 3, 5, 7, 9, 10
- Intellectual Stimulation	60%	3, 4, 7, 8, 9, 10
Impact of Introversion on Occupation	80%	
- Interpersonal Effects	50%	2, 3, 5, 8, 10
- Interaction with Occupational Tasks	50%	3, 4, 5, 6, 8, 9, 10
Occupational Challenges	70%	
- Interpersonal Challenges	60%	2, 3, 7, 8, 9, 10
- Stressors	40%	2, 3, 5, 7
- Tiring Aspects of Occupation	10%	2

9.3 Domain of Experience 6: Recreation

This domain included questions focussing on what participants like to do for fun and how they socialise. Subdomains addressed in the questionnaire included inquiry into what Leisure Activities participants engaged in, Decision Making for recreation and Company for Leisure. Higher order themes that emerged in participants' responses for each subdomain of inquiry are described in detail below.

9.3.1 Subdomain 1: Leisure Activities

Questions for this subdomain focussed on the kinds of activities participants engaged in for leisure and recreation. One participant reported that they were unable to enjoy the pastimes they used to enjoy due to an injury. All of the remaining participants included reference to particular activities when asked what they do for fun and how they socialise. These leisure activities fell into the five broad categories of travel, arts and literature, screen media, physical activities.

9.3.1.1 Higher Order Theme: Travel

Travel was mentioned by over three quarters (80%) of the participants. Some descriptions regarding travel included participants' sense of curiosity and adventurousness. For example, participant 1 wrote: "I really love adventurous things and exploring new places or travelling". Such active and enthusiastic engagement with the world seems counter to the passive, inward oriented descriptors often associated with introversion.

9.3.1.2 Higher Order Theme: Arts and Literature

Just under three quarters (70%) of participants mentioned engaging with fine arts and/or literature in their responses. The most frequently mentioned activity in this category

was reading, which was included in 70% of the responses. For example, participant 5 wrote early in the survey, when referring to their introvert identity, that they "love reading and there is nothing better than to sit and spend an afternoon curled up with a good book". They confirmed their love of reading again when asked more specifically about leisure activities. Participant 9 also described a connection to the written word, describing both reading and writing as activities they do for fun. Participant 4 also included arts and literature in their response, stating: "I listen to music, read books, […] for fun". Music was also mentioned by participant 2, who mentioned a love of playing music in response to many questions throughout the questionnaire. Similar to what was seen in other occupational and leisure activity themes, passion of enthusiasm was evident in several participants' descriptions of arts or literature related pastimes.

9.3.1.3 Higher Order Theme: Screen Media

Just under three quarters (70%) of participants also referred to screen media, including television, video games, YouTube and movies in their responses regarding recreational activities. These activities happened both at home or elsewhere. For example, participant 4 wrote: "If I'm home with a bit more time, I'll watch some videos or play some [video] games", and participant 10 included "go to a movie" in their response.

9.3.1.4 Higher Order Theme: Physical Activities

Half of the participants (50%) wrote about physical activities in response to questions for this domain. Participant 3 stated "I like to exercise. I go to the gym, swim and walk/run mostly. I also like to spend time outside walking dogs or going to the beach". As can be seen in this instance, physical activities included both indoor activities, such as the gym, and outdoor activities, such as swimming or walking. Some participants made specific reference

to getting “out into nature” (Participant 9). Participants generally referred to physical activities that could be done on one’s own, as opposed to describing group exercise classes or team sports.

9.3.1.5 Higher Order Theme: Volunteering

Almost a third (30%) of participants included volunteering in their responses. This included volunteering at church, school, and a sports club. For example, participant 8 wrote: “I am involved as a trainer at a local football club. This takes up a lot of my spare time”. While volunteering took up participants’ time, it also created opportunities for socialising. This can be seen in the theme of recreation with others, presented below in section in 9.3.3.1

9.3.2 Subdomain 2: Decision Making for Recreation

Questions explored here included how participants decided what to do for fun or leisure. Close to three quarters (70%) of participants included decision making in their responses. Higher order themes related to making decisions included practicality and preferences.

9.3.2.1 Higher Order Theme: Practicality

Almost two thirds (60%) of participants reported making decisions about leisure activities based on practicality. Practical considerations included opportunity, time, setting, weather, individual capacity, and interpersonal demands. For example, participant 3 wrote: “It depends on what I feel like doing when I have free time and what the weather is doing”. Participant 2 described interpersonal demands: “My free time is usually dictated by kids and family responsibilities”. In addition to practical considerations, this response also hints at the influence of other people’s needs.

9.3.2.2 Higher Order Theme: Preferences

Half (50%) of the participants wrote that preferences contributed to their decision making. This included both their own preferences (evident in 40% of responses) and those of others (evident in 30% of responses). For example, participant 3 described the importance of other people's preferences: "I'll often ask whoever I'm with what they feel like doing". On the other hand, participant 9 referred to being more focussed on their own needs and preferences, stating: "I think about what will refresh me (in order to decide what to do)". Participant 2's response encompasses both a clear preference of their own to play music whenever possible, and a practical consideration of the preference and availability of others. They wrote: "If the opportunity arrives to play music, I will almost always take it even at the expense of alone time". Recreation alone is considered further in section 9.3.3.2 below.

9.3.3 Subdomain 3: Company for Recreation

This final subdomain included questions regarding the company participants spent their leisure time with. Just under two thirds (60%) of participants included information regarding this subdomain in their responses. The themes that emerged in this subdomain related to recreation with others and recreation alone.

9.3.3.1 Higher Order Theme: Recreation with Others

Close to two thirds (60%) of participants described recreation with other people. This mainly referred to friends and family. For example, participant 3 wrote: "I like spending time with close friends and family". In some cases, the presence of other people was essential to the particular leisure activity. This can be seen in participant 2's response: "Music I like to do in group situations but even then it is fairly solitary while I am playing which I like". Another example can be seen in participant 8's response: "I am involved as a trainer at a local football

club. This takes up a lot of my spare time. During the off-season I tend to catch up with my children or spend time alone".

9.3.3.2 Higher Order Theme: Recreation Alone

It is interesting to note that, while both participant 2 and participant 8 indicated a valuing of recreation with others, they both also highlighted an appreciation of solitude in leisure time. While these responses represented only just under a quarter (20%) of participants' descriptions of solitary leisure time, more participants highlighted the value of being alone in responses to the next domain of Being Alone (Chapter 10).

9.3.4 Summary Table for Domain 6: Recreation

Higher order themes for the subdomains explored as part of Domain 6: Recreation, are presented in Table 9.3.

Table 9.3

Domain of Experience 6: Recreation - Sub-domains and Higher Order Themes

Higher Order Themes	Subdomains	Found in % of responses	Participants with this theme
	Leisure Activities	90%	
	- Travel	80%	1,2, 3, 5, 7, 8, 9, 10
	- Arts and Literature	70%	2, 3, 4, 5, 7, 9, 10
	- Screen Media	70%	2, 3, 4, 5, 7, 9, 10
	- Physical Activities	50%	3, 5, 7, 9, 10
	- Volunteering	30%	5, 6, 8
	Decision Making for Recreation	70%	
	- Practicality	60%	1, 2, 3, 5, 6,
	- Preferences	50%	1, 2, 3, 7, 9
	Company for Recreation	60%	
	- Recreation with Others	60%	1, 2, 3, 5, 8, 10
	- Recreation Alone	20%	2, 8

CHAPTER 10

PHASE II STUDY 3: FINDINGS FOR DOMAINS SEVEN, EIGHT AND NINE - BEING ALONE, BEING SOCIAL AND BEING ROMANTIC

10.1 Domain 7: Being Alone

This domain included questions regarding participants' experiences alone. Subdomains focussed on inquiry into participants' Frequency of Being Alone, Activity when Alone, Reasons to Be Alone, and Implications of Being Alone. Higher order themes that emerged in response to survey questions in each subdomain are presented below.

10.1.1 Subdomain 1: Frequency of Being Alone

Participants were asked about their experience of being alone. Most (80%) of the participants described how often they spent time alone, with half reporting that the spent time alone daily. Just under a quarter (20%) responded that they spent a lot of time alone, and 20% also indicated that the time they spent alone was not enough.

10.1.1.1 Higher Order Theme: What It Is to Be Alone

When describing how often they were alone, just under a third (30%) of participants included reference to what the nature of being alone was to them. One participant wrote that they were never really alone, stating: "I'm never really 'alone' as my husband is there (in the house)" (Participant 10). This may indicate that for some, to feel truly alone, one must be completely alone, with no one nearby. This theme of what it means to be alone was evident in other participants' responses. In contrast to participant 10's sense of never really being alone, participant 8 wrote: "I spend considerable time alone, even when I'm with others!!", and

participant 5, while stating that spending a small amount of time alone daily was not enough, also described a sense of being alone even with others present. They wrote:

> Sometimes I go to get a haircut- just so I can be alone!! I would like to spend more time alone but usually I get 30-40 minutes in the evening or throughout the day just by myself. I have 2 young kids so, getting time alone is often difficult!!

These comments from participants 5 and 8 show that some introverts can have a sense of being alone even with other people around them. In these cases, the nature of the interaction with others, such as whether there were expectations or demands of the participant, contributed to, or disrupted, the sense of being alone.

In addition to the descriptions regarding the frequency of being alone, the remaining Domain 5 subdomains included questions about activities engaged in when alone, reasons to be alone, and the effect of being alone. Themes that emerged from each of these subdomains are described below.

10.1.2 Subdomain 2: Activity When Alone

Participants were asked what they did when they were alone. Most participants (80%) included descriptions relevant to this subdomain in their responses. Emergent higher order themes evident in activities described in this subdomain included media, pursuit of interests/passion, self-care, and necessary tasks.

10.1.2.1 Higher Order Theme: Media and Games

Almost three quarters (70%) of participants referred to media activities in their responses. This theme included electronic and web-based media and games, as well as more traditional media such as books. For example, participant 3 wrote: “I watch tv shows that I like, that others may not”, participant 7 listed, “Read, listen to music, podcasts”, and

participant 9 stated, “I read, view and do word games, surf the net, keep up with national events etc”.

10.1.2.2 Higher Order Theme: Pursuit of a Particular Interest/Passion

This higher order theme reflected participants responses related to pursuing particular passions or areas of interest. Close to one third (30%) of participants made reference to aspects of this theme in their responses. For example, participant 2 wrote that when alone they "practice [their] instruments”, while participant 3 described engaging in their studies, stating “If I have study to do I'll do that”. Being alone may allow participants a sense of the freedom to choose their activities according to their own preference, (as seen in participant 7’s statement in the previous theme), interests, or needs.

10.1.2.3 Higher Order Theme: Self-care

Just under one third (30%) of participants’ responses involved doing activities related to self-care when alone, including self-nurturing or similar activities beneficial for physical and mental health, or relaxation. For example, participant 5 wrote: “Read, pray. Sometimes I go get a haircut …”. Participant 3 stated: “I exercise on my own most of the time”. The beneficial effect of the health or nurturing activities may be due to the dual effect of the activity itself, as well as the possible benefit associated simply with being alone. This is considered further with other benefits further below.

10.1.3 Subdomain 3: Reason to Be Alone

This subdomain elicited participants’ reasons for choosing to be alone. Most participants (80%) included such reasons in their responses. Emerging higher order themes

included a sense of ease, feelings of autonomy/independence, getting a break from demands, and a desire to relax/refresh/recharge.

10.1.3.1 Higher Order Theme: Ease

Half of participants (50%) indicated that being alone felt natural and easy. Participant 8 wrote: “Choosing to be alone comes naturally for an introvert”. Participant 4 referred to being alone as the easier option, stating: “I guess I choose to be alone because it's easier than chasing people to meet up for coffee”. This theme seems to suggest that being alone is experienced as simple and comfortable for some introverts.

10.1.3.2 Higher Order Theme: Freedom from Constraint

A sense of appreciating freedom associated with being alone arose from participants’ descriptions of their reasons to be on their own. Half of participants (50%) wrote about the value of being less constrained when alone, as being alone was associated with autonomy and reduced demands.

10.1.3.2.1 Subtheme: Autonomy/independence. Close to one third (30%) of participants’ responses related to autonomy or independence arising from being alone. Participant 9 stated this clearly: “I feel autonomous and able to make my own choices”. For participant 3 this autonomy helped productivity: “I get more done when I’m on my own”. Being alone may free introverts from restrictions that might occur in the presence of others.

10.1.3.2.1 Subtheme: Enjoyable break from demands. Just under a quarter (20%) of participants referred to the theme of enjoying the break from the demands of others when alone. For example, participant 7 wrote: “[I] enjoy quiet time and not having to interact”.

10.1.3.3 Higher Order Theme: Refresh and Recharge

When describing their reasons for spending time alone, just under one quarter (20%) of participants included reference to time alone being necessary to refresh and recharge. For example, participant 2 reported choosing to be alone "Because it's relaxing and refreshing". This theme was also evident in participant 5's more cryptic response: "life… energy… recharges my batteries".

10.1.4 Subdomain 4: Implications of Being Alone

This subdomain focussed on the drawbacks and benefits of spending time alone. Close to three quarters (70%) of participants' included information that addressed questions regarding effects of being alone.

10.1.4.1 Higher Order Theme: Drawbacks

Half of the participants (50%) also referred to drawbacks of being alone. These included aspects such as missed opportunities, as highlighted in participant 8's statement that "Spending time alone means that I don't learn about others and miss out on lot of what other could teach me". For participant 1, boredom was a drawback: "Spending time alone makes me bored". One person, participant 6, made reference to drawbacks of being alone by writing, "It has no adverse effect on me". This may indicate that some participants assumed that when questioned about the effect of being alone, negative effects were expected.

10.1.4.2 Higher Order Theme: Benefits

Almost one third (30%) of participants referred to the benefits of being alone. They described the pleasure of being alone. For example, participant 6 wrote: "I enjoy time alone".

Benefits of being alone were also implied in reasons some participants wrote about for being alone, such as ease and freedom from constraint described above.

10.1.5 Summary Table for Domain 7: Being Alone

Higher order themes that emerged within the subdomains explored as part of Domain 7: Being Alone, are presented in Table 10.1.

Table 10.1

Domain 7: Being Alone - Subdomains and Higher Order Themes

Subdomains	Found in % of responses	Participants with this theme
Frequency of Being Alone	80%	
- What it is to be alone	30%	5, 8, 10
Activity when Alone	80%	
- Media and Games	70%	1, 2, 3, 7, 8, 9, 10
- Pursuit of a Particular Interest/Passion	30%	2, 3, 7
- Self-care	30%	3, 5, 7
Reason to Be Alone	80%	
- Ease	50%	2, 3, 4, 8, 9
- Freedom from Constraint	50%	2, 3, 7, 9, 10
- Refresh and Recharge	20%	2, 5
Implications of Being Alone	70%	
- Drawbacks	50%	1, 3, 6, 4, 8
- Benefits	30%	2, 6, 7

Higher order themes

10.2 Domain of Experience 8: Being Social

Domain 8 explored participants experience of socialising. This exploration included subdomains of inquiry focussing on the Context of Socialising, the Impact of Socialising, and the Reason for Socialising. Detailed descriptions of themes that arose in each of these subdomains are outlined further below.

In addition to the subdomains listed above, participants were also asked how often they socialised. Half of the participants described how frequently they socialised. Of these five participants, two described socialising most days. Socialising was described as being connected to other aspects of participants' day to day lives. For example, participant 2 wrote: "I socialise 5-7 days a week outside of my work and studies usually after church commitments." Here she differentiates between socialising and her vocational and educational activities, yet going to church and socialising are linked. Participant 5 reported socialising "every day", which was clearly linked to context, as described further below. Two of the participants who wrote about how often they socialised referred to weekly or fortnightly socialising. Participant 7 wrote that she socialises "at least once a week", and participant 9 described socialising "With partner on weekly basis, with friends once a fortnight orso". As with participants 2 and 5, the importance of contextual factors, such as who one socialises with, can be seen in this response by participant 7. Of the five participants who referred to frequency of socialising, only participant 8 described socialising "rarely".

10.2.1 Subdomain 1: Context of Socialising

Higher order themes relating to context were evident in almost all (90%) of participants' descriptions of socialising. These themes referred to keeping it small (80%), going out and about (40%) and comfortable settings (30%).

10.2.1.1 Higher Order Theme: Keeping It Small

Over three quarters (80%) of participants wrote about keeping social interactions small. This theme related to participants describing small social interactions, often with particularly close others. References to shorter interactions also contributed to this theme.

Keeping it small related to both numbers and types of people involved and amount of time required. For example, participant 5 wrote: “Most of my socialising is on 1:1 ration, so it gives me energy. I don't do a lot of socialising with large groups, mainly with individuals or couples.” Here the impact of keeping numbers small on energy levels was clearly articulated.

Participants also included strategies for keeping social interactions small. Participant 4 wrote that they “usually socialise by meeting up with a single person for coffee or lunch”. This illustrated keeping numbers small and choosing an activity less likely to be prolonged, as going out for dinner or drinks might be. Participant 10 described such a rationale explicitly, stating: “[I] enjoy short socialisation sessions such as a cocktail party for an hour where [I] can catch up with a few people then go home, rather than long dinners”. In this example, limiting both numbers of people and the time required were mentioned.

Responses of 80% of participants also referred to socialising as often occurring in the context of close relationships. An example of this was seen in participant 9’s reference to socialising “with my partner, with my sisters at family gatherings, with close friends”. The emphasis on small, intimate social experiences in these data may indicate that these introverts prioritise particular qualities of social experiences, rather than valuing quantity of social interaction.

10.2.1.2 Higher Order Theme: Going Out and About

Just under half (40%) of participants described socialising out and about. In some cases, socialising was associated with an activity that participants were involved in on a regular basis, such as going to church, or other community or group activities or commitments. Participant 5 demonstrated this:

> I socialise with people every day. I have to drop my daughter off at pre-school and I have a position on the committee there, so I am often talking with other parents. I volunteer at my church and run a playgroup and Sunday School, so I need to socialise with other leaders, mums and children. We would have people around for dinner at least 2 or 3 times a week, often more. Also, I mentor several people, so I regularly catch up with them. Most of my socialising is on 1:1 ration, so it gives me energy. I don't do a lot of socialising with large groups, mainly with individuals or couples.

Participant 6 also mentioned community when asked about socialising, saying: “I do a fair bit of community work”. For participants who referred to socialising in this way, social experiences were generally described as integral to day-to-day activities, rather than something that was a specific goal in and of itself.

Some participants reported a slightly different pattern of socialising when out and about. These participants went out more specifically to engage in socialising. For example, participant 7 wrote of socialising “over dinner / drinks / gatherings: going out”. Participant 10 reported that socialising “tends to bring me out of that insular space I feel so comfortable in”. For these participants it was socialising itself that was the aim of going out.

10.2.1.3 Higher Order Theme: Comfortable Setting

Close to a third (30%) of participant responses in this subdomain included factors related to feeling comfortable in settings for socialising. Responses referred to convenience

and choosing relaxed settings or activities. For example, participant 1 described using the convenience of "social media to organise [to] meet up with friends to hang out or go out". Participant 3 emphasised the importance of feeling comfortable by being relaxed: "I like to socialise in a relaxed atmosphere with a small group of people such as going out for meals or drinks or relaxing at home with friends and family". The impact of comfort when not socialising was also mentioned. Participant 10 wrote that socialising "tends to bring me out of that insular space I feel so comfortable in". A sense of comfort was a key consideration which impacted on and motivated participants' social choices and interactions.

10.2.2 Subdomain 2: Impact of Socialising

Higher order themes that emerged in this sub-domain related to the impact or effect on participants of socialising, revealing both positive and negative outcomes.

10.2.2.1 Higher Order Theme: Positive Outcomes

Almost all participants (90%) wrote of the positive impact of socialising. Positive outcomes identified by participants included enjoyment (40%) and connection (20%).

10.2.2.1.1 Sub-theme: Enjoyment. Participant 1 clearly stated the benefit of socialising by saying: "Spending time with others makes me feel good". Participant 4 also noted that they "feel good afterwards". Participant 9 described a positive outcome in spite of prior ambivalence: "I often am reluctant before a social event but then enjoy it if it meets my preferences". This statement also referred to the enjoyment being dependent on the condition that the social event be in line with what participant 9 prefers. Overall, while participants acknowledged enjoyment in socialising, such enjoyment was equivocal at times and could be associated with ambivalence and conditional requirements.

The conditional nature of positive outcomes was evident in four participants' responses. Participant 3 wrote:

> It depends which people I spend time with as to what effect it has on me. New people and people I don't know that well tend to be a bit more energy draining but people I have known a long time or family tend to make me feel more relaxed and happy.

This statement highlighted the importance of familiarity and comfort with the people involved in the social activity, in order to experience the benefits of socialising. Similarly, as noted above, participant 5 also referred to the impact of socialising on energy, highlighted that feeling energised by social interaction was conditional on interacting with one person at a time. The benefits of socialising were also alluded to by participant 9 who wrote, "I find I need a 'dose' of socialising every now and then". Socialising is clearly important to these self-identified introverts, a finding that may be transferable to other introverted people.

10.2.2.1.2 Sub-theme: Connection. In addition to enjoyment, connection was an evident theme related to positive outcomes of socialising. Participant 7 wrote: "I enjoy being with others and hearing what they are doing / thinking etc.", while participant 9 reported: "Spending time with others makes me more knowledgeable and tends to bring me out of that insular space I feel so comfortable in". Description of the value of connections seemed to be related to participants taking in what others shared, including specific knowledge about other people, or broader knowledge about the world.

10.2.2.2 Higher Order Theme: Negative Outcomes

Reference to negative results of socialising were evident in half (50%) of the participants' responses. In particular, feeling uncomfortable while socialising and feeling drained afterward were subthemes that emerged from the analysis.

Subtheme: Feeling Drained after Social Experiences. Participant 2 described when socialising can be draining and how they manage this: “It can be tiring if I do it a lot without any gaps but I normally have a few hours each night to myself, so it doesn't tire me out much”. Participant 2 thus identified that the frequency of social interaction contributes to fatigue, and noted that daily counterbalance of time to oneself can offset this. Similarly, participant 4 referred to the extent of socialising as a contributor to fatigue. In participant 4’s response, a single episode of social interaction could be draining, depending on the duration of the interaction: “I can get pretty tired after a long chat”.

Subtheme: Discomfort during Social Experiences. In addition to feeling drained after social interactions, a subtheme of feeling uncomfortable during social interactions also emerged. Just under a quarter (20%) of participants included aspects related to discomfort when describing negative impacts of socialising. Feeling uncomfortable contributed to participants’ ambivalence regarding social experiences and could even be aversive enough that it could result in opting out of social experiences. Participant 9 stated this clearly, writing that: “If a social event does not make me feel comfortable, I am keen to extricate myself and feel relief when I do”.

10.2.3 Subdomain 3: Reason for Socialising

For this sub-domain, participants were asked why they chose to socialise, and just under three quarters (70%) of participants described their motivations for socialising in their responses. These gave rise to two higher order themes, namely commonality and the desire to socialise.

10.2.3.1 Higher Order Theme: Commonality

This theme includes reasons for socialising related to shared activities and interests and enjoying particular people's company. Half (50%) of the participants made reference to commonality in their responses. For example, participant 2 wrote: "I like to play music with people or hang out in small groups [and] choose to spend time with people whose company I enjoy and who don't tire me out". Shared aspects of social experiences can be important to introverts when socialising.

10.2.3.2 Higher Order Theme: Desire to Socialise

Almost one third (30%) of participants included aspects related to the desire to socialise in their responses. Such a desire was related to addressing a negative impact of not socialising, or to a less specific, intrinsic urge. An example of socialising being helpful in reducing a negative impact can be seen in participant 1's response: "I chose to be with other people out of boredom". On the other hand, while there is a sense that there is something beneficial in participant 9's response, this was not explicitly stated: "I find I need a 'dose' of socialising every now and then". It seems that for explicit and implicit reasons, introverts in this sample do wish to socialise at times.

10.2.4 Summary Table for Domain 8: Being Social

Higher order themes that emerged within the three subdomains explored as part of Domain 8: Being Social, are presented in Table 10.2 below.

Table 10.2

Domain 8: Being Social - Sub-domains and Higher Order Themes

	Sub-Domains	Found in % of responses	Participants with this theme
Higher Order Themes	Context of Socialising	90%	
	- Keeping it small	80%	1, 2, 3, 4, 5, 6, 9, 10
	- Going Out and About	40%	1, 6, 7, 10
	- Comfortable Setting	30%	1, 3, 10
	Impact of Socialising	90%	
	- Positive Outcomes	90%	1, 2, 3, 4, 5, 7, 8, 9, 10
	- Negative Outcomes	50%	2, 3, 4, 8, 9
	Reason for Socialising	70%	
	- Commonality	50%	2, 5, 6, 7, 10
	- Desire to Socialise	30%	1, 7, 9

10.3 Domain Nine: Being Romantic

In addition to questions about general socialising, participants were asked about their view and experiences of romantic relationships. Three subdomains relating to romantic relationships were explored: characteristics of ideal romantic relationships, advantages of romantic relationships, and challenges of romantic relationships. Themes that emerged from responses for each of these subdomains are described below.

10.3.1 Subdomain 1: Characteristics of Ideal Romantic Relationships

Questions included for this subdomain focussed on participants' view of characteristics of an ideal romantic relationship. Higher order themes that arose from analysis of responses in this subdomain related to particular traits of an ideal romantic partner, and to shared experiences.

10.3.1.1 Higher Order Theme: Traits of Ideal Partner

Most participants (80%) identified specific traits a partner would have when describing an ideal romantic relationship. Subthemes within this theme were being trustworthy, treating one well, and bringing something to the relationship.

10.3.1.1.1 Sub-theme: Trustworthiness. Almost a third of participants (30%) included trustworthiness in their responses. For example, participant 2 identified that an ideal romantic partner is someone: "who you can rely on completely and trust enough to be open with". Participant 1 also including trust in their list of desirable traits, stating an ideal partner would: "have all the generic traits of a relationship trust reliability honesty etc.".

10.3.1.1.2 Sub-theme: Treating One Well. Half (50%) of the participants indicated an ideal romantic partner would treat one well. Participant 6 wrote: "My ideal romantic relationship would be to have someone who loves me, treats me as an equal". A valuing of

egalitarian aspects of a relationship was also evident in the following list from participant 7, which included aspects related to mutuality of good treatment: “Sharing, intimate, equal, mutually accepting”.

10.3.1.1.3 Sub-theme: Bringing Something to the Relationship. The concept of an ideal partner bringing something to the relationship was evident in two participants responses (20%). Participant 5 described their current partner as: “a great cook, so that is another great part of our relationship”. Participant 2’s assertion that an ideal partner would be “someone who has a love of language like me, has a great sense of humour” also indicated that the partner would contribute something meaningful and valued to the interaction.

10.3.1.2 Higher Order Theme: Shared Experiences

Most participants (80%) referred to shared experiences as a key aspect of romantic relationships. Participant 8 expressed this clearly, stating: “ideal relationship = sharing with someone else”. Shared experiences here included both memorable or novel types of experiences on the one hand, and more mundane, day-to-day occurrences on the other. Participant 1 emphasised the former, writing: “My ideal relationship is someone who I can make memories with, travel with, explore with”. Novelty was also evident in participant 4’s response: “The best things are having someone to do things with and try new things”. By contrast, participants 3 and 9 tended to emphasise everyday aspects. Participant 3 wrote: “Someone you feel comfortable with and who you can share your life with”. Participant 9 emphasised sharing common skills and characteristics: “Someone who has a love of language like me, has a great sense of humour”. Overall, sharing joint experiences with a partner arose as an important characteristic of an ideal romantic relationship.

10.3.2 Subdomain 2: Advantages of Romantic Relationships

Questions for this subdomain asked participants for reflections on positive aspects of a romantic relationship. Higher order themes that emerged were interpersonal advantage, good feelings, and support. Details regarding these themes are presented below.

10.3.2.1 Higher Order Theme: Interpersonal Advantage

Aspects pertinent to this theme were evident in most (80%) participants' responses. Benefits of a romantic relationship that were described related to feeling connected to another, caring and feeling cared for, and being less alone. For example, participant 2 wrote: "As an introvert, having this one very close relationship is ideal and helps to feel less alone". Participant 3 also stated that "the best thing about a relationship is feeling like you're not alone". Participant 9 referred to physical, intellectual and emotional advantages of a romantic relationship: "The best things are the close physical contact, the attunement of mind and the knowledge that someone loves you unconditionally". It seems that romantic relationships were seen to meet particular interpersonal needs for introverts.

10.3.2.2 Higher Order Theme: Good Feelings

The theme of good feelings associated with a romantic relationship emerged for almost three quarters (70%) of participants. Good feelings included love and care, and extended to include feeling accepted and safe. Participant 8 wrote about "sharing and having someone to care about and care about me" as the best things about a romantic relationship. Participant 3 referred to a romantic partner as "Someone you feel comfortable with". This sense of comfort was also reflected in participant 4's response with its overtones of feeling safe both to be and to express oneself: "It's difficult to find someone who you can express yourself too (needs, wants, desires, etc.) without feeling ashamed or embarrassed. Someone

who you can challenge without the fear of repercussions". Being known and accepted as one is, and the comfort that results from such acceptance, were important contributor to positive feelings introverted participants associated with romantic relationships.

10.3.2.3 Higher Order Theme: Support

Almost half (40%) of participants include aspects related to support as advantages of a romantic relationship. For example, Participant 3 wrote:

> An ideal relationship is just having someone that is your best friend and partner. Someone you feel comfortable with and who you can share your life with. Having someone there who supports you and is there for you when you need them. Having someone you can talk openly with. The best thing about a relationship is feeling like you're not alone. That someone will always have your back and someone to help you when you need it.

These comments also illustrated the interrelatedness of the themes related to advantages of romantic relationships.

10.3.3 Subdomain 3: Challenges of Romantic Relationships

In addition to describing benefits of romantic relationships, half (50%) of the participants also commented on challenging aspects of such relationships. Higher order themes that emerged from participants' responses in this subdomain were analysed as related to balancing needs and risk.

10.3.3.1 Higher Order Theme: Balancing Needs

The theme balancing needs emerged from almost half (40%) of participants' responses. This theme included participants' descriptions of the challenge of each person

considering the other, and each getting enough of what they need while also giving the other enough of what they need. Participant 3 stated this quite clearly: “making sure each person gets out of the relationship what they need. Making sure both people feel secure and supported in the relationship”. The theme of balancing needs also included managing differences in the desire for social interaction and togetherness. For example, participant 5 wrote: “he is an extrovert and would have a house full of people every night for dinner if I let him!!”. Some responses indicate part of the challenge can be balancing intimacy and independence. This can be seen in participant 9’s response: “Ideal relationship = sharing with someone else but only what I want to share”. Overall, this theme reflects similar themes emerging in other domains of inquiry evoking introverts’ efforts to maintain their own comfort while also considering the needs and expectations of others.

10.3.3.2 Higher Order Theme: Risk

This theme included participants’ references to insecurity and fear that can be felt when opening up to a partner and giving of oneself in doing so. Participant 3 wrote of the challenge of: “maintaining balance. It is very difficult emotionally investing in someone. I often feel like I've given up part of myself and I feel insecure about whether the other person is an invested as I am”. Insecurity and fear were also clear in participant 8’s statement that: “romantic relationships can be frightening because I have to expose my feelings”. This theme seemed to highlight the particular challenge that emotional intimacy may pose to introverts’ inward orientation and reserve.

10.3.4 Summary Table for Domain 9: Being Romantic

Higher order themes that emerged within the subdomains explored as part of Domain 9: Being Romantic, are presented in Table 10.3 below.

Table 10.3

Domain 9: Being Romantic - Subdomains and Higher Order Themes

	Subdomains	Found in % of responses	Participants with this theme
Higher Order Themes	Characteristics of Ideal Romantic Relationships	90%	
	- Traits of Ideal Partner	90%	1, 2, 3, 5, 6, 7, 8, 9
	- Shared Experiences	80%	1, 2, 3, 5, 6, 7, 8, 9
	Advantages of Romantic Relationships	90%	
	- Interpersonal Advantage	80%	2, 3, 4, 5, 6, 7, 9, 10
	- Good Feelings	70%	2, 3, 4, 6, 7, 8, 9
	- Support	40%	3, 4, 6, 9
	Challenges of Romantic Relationships	50%	
	- Balancing Needs	40%	2, 3, 5, 9
	- Risk	40%	2, 3, 8, 9

CHAPTER 11

PHASE II STUDY 3: FINDINGS FOR DOMAIN TEN - TIRING EXPERIENCES

11.1 Domain of Inquiry 10: Introversion and Tiring Experiences

This domain required participants to describe a tiring day. Subdomains introverts were asked to reflect on included questions regarding characteristics of a tiring day, interpersonal features of, recovery from, and consequences of a tiring day. Detailed descriptions of themes that arose from participants' responses are presented below.

11.1.1 Subdomain 1: Characteristics of a Tiring Day

This subdomain comprised aspects related to broad characteristics participants included when asked to describe the day itself. Over three quarters (80%) of participants responded with reference to such aspects. Higher order themes that emerged from participants' responses were preceding physiological contributors, emotions experienced, and sensory aspects.

11.1.1.1 Higher Order Theme: Preceding Physiological Contributors

Over one third (40%) of participants' responses in this domain included references related to conditions that predisposed them to find a particular day tiring. These related to inadequate restful sleep, having an early start, and feeling unwell. For example, participant 1 wrote: "A tiring day for me is one where [I] had little sleep". Health issues were highlighted in participant 10's description: "Today was tiring. Woke up with bad guts". Each of these identified contributors referred to a type of physical depletion.

11.1.1.2 Higher Order Theme: Emotions Experienced

In half (50%) of participants' responses, emotions experienced during a tiring day were described. Such emotions included boredom, stress and frustration. At times emotions were stated explicitly. Participant 1 reported: "…boredom which makes me tired", while participant 9 wrote: "a stressful day at work". In other responses, the emotion came through implicitly. For example, participant 8 described a tiring day as involving: "Conversing with other people and having to keep a conversation going when I'd rather be alone and not having to divulge too much about ME". Tiring negative emotions seemed to relate to spending time acting counter to one's preferred way of being, particularly if this resulted in being over or under stimulated.

11.1.1.3 Higher Order Theme: Sensory Aspects

The impact of sensory aspects was mentioned by close to a quarter (20%) of participants when describing a tiring day. Physical discomfort and noise were described as particularly salient. For example, participant 5 wrote: "The noise levels are usually fairly loud as well". Participant 10 alluded to dental pain contributing to their day being tiring, reporting that they: "had an early dentist appointment for a nasty procedure". For these participants unpleasant or intense sensory experiences contributed to fatigue.

11.1.1.4 Higher Order Theme: Task Related Features

Most participants (90%) referred to particular characteristics of tasks that contributed to experiencing a tiring day. These characteristics fell into two subthemes which were magnitude of tasks and specific aspects of tasks.

11.1.1.4.1 Sub-theme: Magnitude of Tasks. Half (50%) of the participants referred to the magnitude of tasks involved in tiring day. For the most part tiring days were described

as having a lot to do with significant pressure, or a great deal of responsibility. Participant 3 referred to the quantity that needed to be accomplished as contributing to a fatigue inducing day, writing: “A very tiring day for me would be one in which I have a lot to do and get done”.

11.1.1.4.2 Sub-theme: Specific Tiring Aspects of Tasks. This subtheme encompassed tiring aspects of tasks themselves that contributes to a day being tiring. Almost three quarters (70%) of participants described specific kinds of tasks as tiring. Such aspects included repetitiveness, mental challenge, physical demand, and multiplicity. Several of these can be seen in Participant 1’s response:

> A tiring day for me is one where if had little sleep and have done a lot of physical movement. There are also days that are tiring because of repetitionof the same things resulting in boredom which makes me tired.

Participant 7 also described a number of aspects of tasks involved in a tiring day: “Tiring = equals a big day at work, often under pressure, travelling, hosting public events, recording, editing, the looking after kids, driving, feeding children”. Here being under pressure contributed to the tiring nature of the day, along with having multiple, diverse tasks to accomplish.

11.1.2 Subdomain 2: Interpersonal Features of a Tiring Day

Participants were asked about interpersonal features of a tiring day. Most participants (80%) referred to particular interpersonal aspects that contributed to a day being tiring for them. Higher order themes that emerged related to the extent of interpersonal interactions and the diversity of interpersonal interactions.

11.1.2.1 Higher Order Theme: Extent of Interpersonal Interaction

Almost half (60%) of participants made reference to a high level of interpersonal interaction, of new people, or of group involvement as being aspects of a tiring day for them. For example, participant 4 reported: “The most tiring days are when I have to talk to lots of people about mentally challenging topics. For example, if I have to tutor a few people, talk to a lecturer and to some students as well”. A large magnitude and range of interpersonal interactions featured in tiring days for this participant. Participant 2 also referred to the magnitude of interpersonal interaction contributing to tiredness. They indicated that the amount of interaction was more impactful than where or with whom that interaction occurred: “A lot of social interaction alongside getting up early and actual tiring work. It normally takes a few days for this to feel properly tiring though. Place and people specifically aren't important to it.”.

In addition to quantity of interaction, the nature of interpersonal involvement was identified as a contributor to fatigue. Participant 3 wrote:

> Days at a new job or with a lot of new people tend to be the most exhausting. If I don't have any breaks in the day on my own such as only having a lunch break in a tearoom with others I feel pretty drained by the end of the day.

This statement illustrated the impact of the quantity and novelty of interpersonal interactions on energy levels. In addition, participant 3 referred to time on their own as important to managing the demands of a day, and described the debilitating impact of not getting such time alone.

11.1.2.2 Higher Order Theme: Diversity of Interpersonal Interaction

Just under half (40%) of the participants mentioned diverse interpersonal interactions when describing a tiring day. They wrote of caring for children, interactions with groups, being

with colleagues or friends, or (in one case) being alone, as features of tiring days. Close to one third (30%) specifically mentioned aspects of caring for children in their descriptions. Participant 5 wrote:

> Looking after multiple children. It physically gives me a headache. It usually involves singing, dancing, playing with children and talking with multiple parents. The noise levels are usually fairly loud as well. I don't like large groups of parents and children. It usually involves large numbers of young children 0-5 years old.

This report illustrated that it is the combination of the types of interpersonal interactions (children, parents, groups) and the intensity of them that contributed to this participant's subsequent exhaustion. Two participants also highlight aspects of caring for children in their tiring days:

> A tiring day would be up at 7. Get the kids lunches and get the kids ready for school. Take them to school. Perform volunteer duties at school. Go home do housework, shopping. Perform my secretary duties for the Fire brigade. Go collect the kids, who would most probably have a friend over. Take child to drum lessons or tutoring. Come home. Do dinner, homework, clean up. Bed. (Participant 6)

- and again: "… looking after kids, driving, feeding children" (Participant 7). All 3 of these examples highlight the complexity of caring for children along with multiple other demands.

11.1.3 Subdomain 3: Recovery after a Tiring Day

Participants were asked how they would recover after a tiring day. Higher order themes in their responses related to relaxing activities, alone time, comfort and familiarity, and nurturing.

11.1.3.1 Higher Order Theme: Relaxing Activities

Half (50%) of the participants wrote about using relaxing activities to recover from a tiring day. For example, participant 5 wrote: “After a day like that I love to come home and have a bath, or read a book or watch a movie”. The relaxing activities described by participants also included a sense of comfort, familiarity and nurturing. They were often also quiet activities.

11.1.3.2 Higher Order Theme: Alone Time

Half (50%) of participants stated that they spend time alone to recover from a tiring day. Participant 2 wrote: “I would recharge by doing something alone and away from others”. Similarly, participant 9 stated that to recover it would be “Just me”. Participant 3 wrote about taking “breaks in the day on [their] own” if possible, and being “pretty drained by the end of the day” if unable to get that time alone. It is evident that self-identified introverts in this study valued time alone as strategy to recover from the demands of a tiring day.

11.1.3.3 Higher Order Theme: Comfort and Familiarity

Almost half (40%) of participants described seeking comfort and familiarity to recover from a tiring day. This is evident in participant 3’s response: “going home to a nice meal and lying down and watching something simple on tv is what I would usually do at the end of a day like that”. The comfort of home and a nice meal and the familiarity of simple tv seem to be soothing for this participant. Participant 4 also indicated that they valued returning to the familiar and comfortable: “To recharge I like to go home”. Given that novelty was included in several responses as a contributor to a day being tiring, it is understandable that participants experienced comfort and familiarity as conducive to recovery after such a day.

11.1.3.4 Higher Order Theme: Nurturing

Just under one third (30%) of participants referred to nurturing as an aspect of their recovery after a tiring day. This referred to self-nurturing, as indicated by participant 4 who wrote: “cook a nice diner”. On the other hand, some sought to be nurtured by others when recovering from a tiring day, or combined nurturing themselves and being nurtured by others, as in participant 10’s response: “I will recharge with a nap and a glass of wine and hope my husband makes the dinner”.

11.1.4 Subdomain 4: Consequences of a Tiring Day

Participants also described the impact of a tiring day on them. Consequences were evident in 20% of responses and generally reflected a sense of depletion.

11.1.4.1 Higher Order Theme: Feeling Depleted

This higher order them evident in 30% of responses included feeling drained as well as ill. For example, participant 3 wrote: “[I] feel pretty drained by the end of a tiring day”. Participant 5 described the physical consequence of a tiring day, stating: “It physically gives me a headache”. Such an impact is similar to the impact of acting extraverted described above by participant 10, who wrote that having to “host something, […] takes it out of me. I can be sick for days afterwards”. Clearly for some self-identified introverts, extending themselves to their limit can have a significant negative effect.

11.1.5. Summary Table for Domain 10: Tiring Experiences

Higher order themes that emerged within the subdomains of inquiry explored in Domain 1: Tiring Experiences are presented in Table 11.1.

Table 11.1

Domain 10: Tiring Experiences - Subdomains and Higher Order Themes

Higher Order Themes	Subdomains:	Found in % of responses	Participants with this theme
	Characteristics of a Tiring Day	80%	
	- Preceding Physiological Contributors	40%	1, 2, 6, 10
	- Emotions Experienced	40%	1, 3, 7, 9
	- Sensory Aspects	20%	5, 10
	- Task Related Features	90%	1, 2, 4, 3, 5, 6, 7, 8, 9
	Interpersonal Features of a Tiring Day	80%	
	- Extent of Interpersonal Interaction	60%	2, 3, 4, 5, 8, 10
	- Diversity of Interpersonal Interaction	40%	5, 6, 7, 8
	Recovery after a Tiring Day	80%	
	- Relaxing Activities	50%	3, 4, 5, 6, 10
	- Alone Time	50%	2, 3, 5, 8, 9
	- Comfort and Familiarity	40%	3, 4, 5, 9
	- Nurturing	30%	3, 4, 10
	Consequence of Tiring Day	40%	
	- Feeling Depleted	30%	2, 3, 5

CHAPTER 12

PHASE II STUDY 3: INTEGRATIVE FINDINGS AND BRIEF DISCUSSION

This chapter relates to superordinate themes that emerged from consideration of themes identified across numerous domains of inquiry. These superordinate themes encompass themes that emerged from participants' responses to questions related to three or more domains of inquiry. They arose both from identified themes in the previous chapters, as well as from particular content within these existing themes. As such these superordinate themes can be seen to represent an integration of Study 3 findings, and to constitute the most salient themes that emerged from the data. After these integrative findings are described below, some general points regarding the patterns observed in the findings are briefly discussed.

12.1 Themes Recurring Across Domains

Several themes recurred across diverse domains of psychosocial experience explored in Study 3. Patterns were analysed across the 10 domains of inquiry explored in this study, in order to identify themes that recurred in three or more domains. These were considered superordinate themes. The thirteen such themes identified were: the importance of interpersonal experiences, the importance of comfort and familiarity, awareness of others' expectations and needs, the importance of time alone, preference for small numbers of people, doing what comes naturally, enthusiasm and passion, acting extraverted, being overstimulated, depletion, self-reliance, attitude towards attention, and quietude. These superordinate themes are summarised in Table 12.1 and described below. Illustrative quotes are included for each of the superordinate themes which are presented in descending order of the number of domains in which they occurred.

Table 12.1

Themes Recurring across Multiple Domains of Inquiry.

Superordinate Theme	Domain of Inquiry									
	1	2	3	4	5	6	7	8	9	10
Importance of interpersonal experiences	x	x	x	x	x	x	x	x	x	x
Importance of comfort and familiarity	x	x	x	x	x		x	x	x	x
Awareness of others' expectations and needs	x	x	x	x	x			x	x	
Importance of time alone	x		x	x	x	x	x			x
Preference for small numbers of people	x		x	x	x	x		x		
Doing what comes naturally	x	x	x	x	x		x			
Enthusiasm and Passion	x			x	x	x	x			
Acting Extraverted	x		x	x	x					x
Being overstimulated	x		x		x	x				x
Depletion	x		x		x			x		x
Self-reliance		x	x	x	x					
Attitude towards attention	x		x	x	x					
Quietude		x	x	x						

Note. Domains of Inquiry in Study 3 were: 1 = Acting as Extraverted; 2 = Influence of Family of Origin; 3 = Description of Own Introversion; 4 = Memories of School; 5 = Occupation; 6 = Recreation; 7 = Being Alone; 8 = Being Social; 9 = Being Romantic; 10 = Tiring Experiences. The "x" indicates domains where the superordinate theme was evident.

12.1.1 Importance of Interpersonal Experiences

This superordinate theme arose across all ten domains of inquiry. Although participants did not always choose to answer all questions for each psychosocial domain of experience throughout the survey, all participants responded to questions about interpersonal experiences. In addition, they tended to detail additional information regarding experiences

even when not explicitly asked to do so. They wrote about the interaction between their introverted preferences and their behaviours, as well as describing interpersonal considerations and experiences.

Across domains, participants referred to their interpersonal strengths and challenges, preferred ways of interacting, good and not so good aspects of interpersonal experiences in a variety of contexts, and regular interpersonal involvement for a range of purposes. The latter included for enjoyment and friendship, to share and pursue interests, to achieve tasks (e.g.: educational, vocational, or daily living) and to contribute to the community.

A clear valuing of interpersonal involvement, as well as the desire for deep connection, emerged from the responses of these self-identified introverts. They liked social interaction and made necessary adjustments to safeguard their interpersonal capacity. For example, Participant 2 wrote:

> If I am in a small (3-10 people) group of people I consider close-ish friends I can often be more talkative and more involved. I can end up the centre of attention fairly often in these situations and I don't find it too tiring. Other than that sometimes for work or volunteer commitments I am required to be more social that I normally would with people I don't know but I can manage it pretty well if I have time later to relax by myself.

Here we can see factors that contributed to the capacity for valued interpersonal experiences included the size of a group, closeness or familiarity, and ensuring an appropriate balance between interpersonal time and alone time.

12.1.2 Importance of Comfort and Familiarity

This superordinate theme emerged within nine of the ten domains of inquiry explored. It encompassed themes that related to the importance and effect of comfort, ease and

familiarity. Novelty was also included in this superordinate theme, as it was referred to as less comfortable for participants. Comfort and familiarity positively influenced introverts' interpersonal behaviour and intrapersonal (inner) experience. Participant 9 wrote about finding a comfort zone as an antidote to bullying at school, and described good social connections contributing to comfort:

> School was often difficult as I wore glasses from the age of 6 and was teased. However, I was clever and created my own niche/comfort zone. I used humour as a defence mechanism. When I found a friend with whom I had a rapport, I was more comfortable.

Comfort and familiarity contributed social behaviour and how participants felt when interacting with others. Participant 3 reported that: "New people and people I don't know that well tend to be a bit more energy draining but people I have known a long time or family tend to make me feel more relaxed and happy."

12.1.3 Awareness of Others' Expectations and Needs

In seven of the ten domains of inquiry explored in this study, themes emerged related to awareness of other people's expectations and needs. This superordinate theme included participants adjusting in order to meet the requirements and expectations of others, encountering and managing misunderstandings, and making efforts to balance their own and others' needs in relationships. Participant 2 reported that choosing to spend time alone was not understood: "[it] can be hard to explain to others when it means I have to turn down social engagements without a supposedly valid reasons", and participant 9 wrote that: "People who want to be friends with me can feel unacknowledged because my needs for interaction are less".

12.1.4 Importance of Time Alone

The superordinate theme of the importance of time alone emerged from participants' responses to questions related to seven of the ten domains explored. References to alone time described benefits of being alone, and in some cases disadvantages. In the domains of experience related to self-identification of introversion, school and occupation, time alone was a necessary condition for introverts effectively managing aspects of experiences in these domains. Time alone was related to recovery and recharging across all but one of the domains where this theme was evident. Time alone was also associated with a sense of balance, ease, freedom and space, and created capacity for participants to be social. Participant 2 reported: "The main challenge is ensuring that I spend enough time alone that I can enjoy social situations when they occur". It is interesting to note that when participants described being alone – there was generally also clear reference to spending time with others. Alone time seems not to be preferred to the exclusion of interpersonal interaction, but rather as a necessary counterpoint to, and facilitator of, connecting with others.

12.1.5 Preference for Small Numbers of People

Themes related to preferring fewer people, such as small groups, or one-on-one interactions, were present across six of the ten domains of inquiry. These included themes related to acting more extraverted with individuals or small groups, having small numbers of deep friendships, and preferring small groups when participating in group activities in educational or occupational settings. Participant 3 wrote: "I do tend to work fairly effectively on my own but also in small groups.Larger groups tend to make me withdraw", and participant 5 recalled that at school they: "usually ha[d] 1 or 2 close friends. I was usually involved in the quiet group, not so adventurous group but close friendships".

12.1.6 Doing What Comes Naturally

The sense of introversion as a natural disposition emerged from participants' responses in six of the ten domains of inquiry. This superordinate theme included references to behaviour and experiences that were regarded as natural for introverts, such as being more talkative with close friends or small groups, or spending time alone. Participant 8 stated: "Choosing to be alone comes naturally for anintrovert". Introversion and its inherent characteristics were described as innate and effortless. Also included in this superordinate theme were references to behaviours that felt fake or unnatural, such as acting extraverted or some assertive interactions. Participant 7 wrote: "Being naturally introverted can make chasing people for a story more difficult".

12.1.7 Enthusiasm and Passion

The superordinate theme of enthusiasm and passion was evident across five of the ten domains explored in this study. Themes of enthusiasm were linked with a range of educational, occupational and leisure tasks. Participant 6 affirmed: "I use to be a police officer and had always wanted to be one. I loved every aspect of my job", and participant 1 stated: "I really love adventurous things and exploring new places or travelling". Passion for particular activities at times contributed to participants acting as extraverted and choosing to socialise while pursuing a favourite activity, as can be seen in participant 2's comment that: "If the opportunity arrives to play music I will almost always take it even at the expense of alone time".

12.1.8 Acting Extraverted

Participant responses included reference to acting as extraverted in five of the domains of psychosocial experience focussed on in this study. When describing

characteristics of their introversion, experiences at school and at work, and tiring days, participants wrote about being able to act as extraverted when they were comfortable and motivated, as well as when it was required. For example, participant 4 wrote:

> "I often act more extroverted when the conversation is on a topic that I'm passionate about. Also, at work, I sometimes need to manage people and tell them what to do. When I step into my role at work, I am still somewhat shy towards the boss, but to everyone else I may seem like an extrovert".

12.1.9 Being Overstimulated

This superordinate theme was evident across themes in five of the domains of inquiry focussed on in this research. References to the effect of magnitude included the impact of level of stimulation, of the extent of social interaction (such as how big a group participants interacted with, or the length of time of socialising), as well as reference to aspects related to stress and pressure. Descriptions of such experiences revealed that longer interactions, larger groups, and more arousing stimuli (such as noise, attention, or time pressure) were often experienced as unpleasant for participants in this study, and efforts were made to avoid or limit such experiences. Participant 3 wrote: "I tend to find too much noise or too big a crowd a bit overwhelming".

12.1.10 Depletion

The experience of depletion was a theme that emerged within five of the domains considered in the study. This superordinate theme included references to fatigue, feeling drained, depleted and physically unwell. Such outcomes were reported as resulting from acting extraverted, interpersonal interactions of significant magnitude, or tiring experiences. Participant 4 wrote: "The most tiring days are when I have to talk to lots of people about

mentally challenging topics. For example, if I have to tutor a few people, talk to a lecturer and to some students as well. I feel I get tired because I'm thinking too much". Participant 10 described depletion after acting as extraverted: "I can [act extraverted] if I have to, e.g.: when I have to host something, but it takes it out of me. I can be sick for days afterwards."

12.1.11 Self-reliance

Themes of self-reliance emerged in four of the ten domains of experience explored. References to such self-sufficiency were included in participants' descriptions of their introvert identity and were considered beneficial in work and education. Participant 2 described this in positive terms:

> The advantage is that I don't get bored or crave the presence and attention of others when alone. I am good at listening because I don't feel the need to be the centre of attention all the time. I don't depend on the affirmation, attention or even presence of other people to feel happy.

Participant 3 emphasised the benefit for work: "I tend to work fairly effectively on my own". On the other hand, participant 8 identified a disadvantage of independence: "Spending time alone means that I don't learn about others and miss out on lot of what others could teach me".

12.1.12 Attitude towards Attention

The superordinate theme of attitude towards attention was also apparent in four of the domains of interest. Themes here included generally disliking attention by others, balanced by willingness to be the centre of attention when motivated for a particular valued purpose. Participant 1 reported: "I don't like being the centre of attention it makes me feel uncomfortable, I find myself forcing to speak at times where it's not natural and I always feel

something holding me back when I speak", while participant 2 described the positive attention of friends:

> If I am in a small (3-10 people) group of people I consider close-ish friends, I can often be more talkative and more involved. I can end up the centre of attention fairly often in these situations and I don't find it too tiring.

12.1.13 Quietude

Of the domains of inquiry explored, three included themes related to quiet. This related to preference for quiet settings or activities or to introverts themselves being quiet. Participant 5 described enjoying quite activities when alone:

> I like my personal space and sometimes it is hard to get the quiet time alone. I get to read lots of books. I love reading and there is nothing better than to sit and spend an afternoon curled up with a good book.

12.2 Brief Discussion of Study 3 Findings

In this study, introverts sought deep connection with others, needed time alone, preferred comfort and the familiar, prioritised their passions, and valued authenticity. In order to maintain the capacity for these priorities, they sought to balance energy and depletion, manage attention and expectations, minimise and were able to tap into state extraversion or self-reliance, and chose quiet over stimulation.

A number of the themes described in the findings above reflect psychosocial functioning in line with what one would expect of introversion as conceptualised by personality scientists, namely quietude, disliking attention and self-reliance (e.g.: Costa & McCrae, 1992; DeYoung et al., 2007; Lee & Ashton, 2018). However, other themes, such as depletion and the importance of time alone, are more in line with lay conceptualisations

evident in lay books (e.g.: Cain, 2009; Laney, 2002) and in the findings of Study 1 described in Chapter 4 above. Additionally, there are some aspects of the introvert experience emerging here, that differ notably from both scientific and lay descriptions of this personality trait. The importance of interpersonal involvement, the importance of comfort and familiarity, and enthusiasm and passion are such themes. A detailed discussion of this study's findings and how they relate to the scientific and lay literature, can be found in Chapter 13. This is followed by an integrative consideration of the findings of all three studies included in the present program of research.

CHAPTER 13

INTEGRATIVE DISCUSSION OF FINDINGS OF CURRENT PROGRAM OF RESEARCH

The purpose of the research reported here was to explore lay conceptualisations and lived experience of introversion, and to consider these in light of scientific and lay literature regarding this aspect of personality. This was accomplished in two phases. Phase I of the research included Study 1 and Study 2. Study 1 was a qualitative study which explored lay conceptualisations of introversion. Study 2 involved a quantitative analysis of the findings of the first study in order to examine the influence of introversion, extraversion and ambiversion on descriptors used by lay people in their definitions of introversion. Phase II of the research, Study 3, was an in-depth, qualitative exploration of the experience of self-identified introverts across key domains of psychosocial functioning. The findings of each of these three studies will be discussed separately in this discussion chapter, followed by a discussion of the findings in relation to each other.

13.1. Discussion of Findings of Phase I Study 1 - Qualitative Exploration of Lay Conceptualisations of Introversion

The aim of the first study in this program of research was to explore, among a broad sample of lay participants, their conceptualisations of introversion. The findings for Study 1 indicated that participants considered introversion to mainly be related to interpersonal behaviours and the outcomes of those behaviours. In addition, identified characteristics of introverts such as Reflective, Quiet and Spending Time Alone, suggested traits commonly found in scientific descriptions of introversion. Therefore, some areas of agreement were evident between scientific conceptualisations and lay understandings of this aspect of

personality. However, descriptors related to reasons participants gave for introverted behaviour indicated key differences between lay and current scientific understanding of introversion. Such similarities and differences, and their implications are discussed below.

13.1.1 Study 1 Findings in Relation to Scientific Literature

In 23 (26.4%) of participants' responses, shyness was identified as a key aspect of introversion. Over a quarter of the sample seemed to erroneously confuse introversion with shyness. Costa and McCrae (1992) noted that even introverts themselves may do this and "say they are shy when they mean that they prefer to be alone: they do not necessarily suffer from social anxiety" (Costa & McCrae, 1992, p. 15). Misunderstandings regarding shyness and introversion may have implications for identification of, and interventions for, shyness and social anxiety. Such misconceptions may also influence the self-concept of introverts. It is therefore important to increase lay people's understanding of defining aspects of shyness and how it differs from introversion.

Participants in the present study demonstrated a perception of misunderstandings of introversion, and Being Misunderstood actually emerged as a theme in their conceptualisations of this personality trait. Participants noted that introverted behaviour may be misinterpreted, and may cause difficulties for introverts or for those around them. While not extensively explored, bias and negative treatment of introverts has been investigated in some scientific literature. McCord and Joseph (2020) coined the term Perceived Introvert Mistreatment, to refer to the sense a person may have that they have been treated poorly or discriminated against due to their own introversion. In developing their ideas, McCord and Joseph describe how the perceived mistreatment may be both a realistic reflection of events, and a misinterpretation of more neutral circumstances. Misunderstandings can be both due to and about introversion. Such misunderstandings may also contribute to introverts missing out

on opportunities, as identified by participants in the present research, and as found in the study by Ferree and Smith (1979). Identification of contributors to this misunderstanding, and the potentially related lost opportunities, will be important in improving psychosocial outcomes for introverts.

One factor that may be contributing to misunderstandings in the lay community regarding introversion may be a lack of clear comprehension of the underlying reasons for, or causes of, introversion. For example, while 66 (75.9%) of participants in the current study included some reference to reasons for introversion in their descriptions, few participants mentioned biological or physiological reasons for introverted characteristics. This is a notable gap in lay conceptualisations of introversion. A described in Chapter 2 above, scientific literature on introversion identifies several physiological factors as related to differences between introversion and extraversion (E.g.: Eysenck & Eysenck, 1967; Gardini, Cloninger & Venneri, 2009; DeYoung, 2013). It may be that the references made by 33 (37.9%) of the participants to the impact of socialising on introverts' energy levels, and the need to be alone to recharge such levels, stemmed from a recognition of physiological implications of introversion, but this was not overtly stated. This reference to energy which was included in lay descriptions in the current study, is not strongly reflected in recent scientific personality literature, and even less so in personality measures. Even the introversion items of the Myers-Briggs Type Indicator (MBTI) (1998), which purports to be based on Jung's personality types, relate mainly to interpersonal, observable aspects of this personality characteristic, with little focus on intrapersonal aspects such as the interaction between behaviour or experiences with an individual's physiology and the resulting impact on energy levels. Thus, gaps in knowledge of aspects of internal mechanisms for introversion may well contribute to lay people's misunderstanding of introversion.

13.1.2 Study 1 Findings in Relation to Lay Literature

While the current study found that lay conceptualisations of introversion partially aligned with scientific definitions in identifying the observable behavioural aspects of introversion in interpersonal relationships, it also revealed several aspects of the introvert experience which relate to introverts' subjective experience and preferences. As noted by Boag (2015, 2018), and as commented in section 13.1.1 above, a comprehensive consideration of personality requires consideration of what motivates behaviours associated with particular traits. Such internal, subjective aspects of experience were included in my participants' descriptions of introversion and also feature prominently in lay literature. For example, the finding of Study 1 that close to two thirds of participants considered introverted behaviour to be motivated by comfort and preference aligns with Cain (2012), who wrote of introverts' preferences such as those for socialising with smaller numbers of people they are close to, for spending time in settings that are not highly stimulating, and for quiet reflection and independent learning. Helgoe (2008) also referred to introverts' preferences and comfort as influencing behaviour. She wrote of introverts being comfortable with solitude, yet also referred to their capacity to be comfortable in social interactions but finding those interactions draining of energy over time.

Similar to Helgoe, participants in Study 1 also included references to the ebb and flow of energy as a factor influencing introverts' engagement in, and capacity for, particular behaviours and activities. This also aligns with the views of certain lay authors. For example, Laney (2002) wrote:

> "The strongest distinguishing characteristic of introverts is their energy source: Introverts draw energy form their internal world of ideas, emotions, and impressions. They are energy conservers. They can be easily overstimulated by the external world, experiencing the uncomfortable feeling of "too much". This can feel like antsyness or

> torpor. In either case, they need to limit their social experiences so they don't get drained. However, introverts need to balance their alone time with outside time, or they can lose other perspectives and connections. Introverted people who balance their energy have perseverance and the ability to think independently, focus deeply, and work creatively." (p. 19).

This quote includes aspects related to several themes evident in Study 1 findings. For example, Participant 31 recognised that an introvert "prefers their own company. Being around people for too long drains them or makes them anxious", and Participant 5 seemed to identify possible drawbacks of prioritising time alone to conserve energy when they wrote, "Some tend to push people away inadvertently simply because the energy required to always let people in is simply too much". Thus, the sense of the need for balancing time focussing inward with outward activities has been recognised both by lay authors (Helgoe, 2008; Laney, 2002) and by lay participants in the present research.

The findings of Study 1 also revealed that some lay participants considered shyness to be either a motivation for introverted behaviour or an inherent characteristic of introversion. Other participants clarified that introverts are not necessarily shy. This latter view is in line with the opinions of lay authors, according to whom (Cain, 2012; Laney, 2002) shyness involves anxiety and fear regarding social interactions and possible negative judgements from others. People at all points along the introversion-extraversion domain can be shy – including extraverts (Cain, 2012). According to Cain, a shy extravert and a calm introvert may appear the same when seen sitting quietly amongst others. This highlights the importance of understanding the causes and motivations of behaviour.

Misattributions regarding reasons for introverts' behaviour may contribute to poor understanding of introversion. Being misunderstood was a theme that emerged in Study 1 reported here. Participant 43 wrote that it was "hard for other people […] to understand […]

being alone", and participant 54 described how introverted behaviour could be misconstrued as "being disinterested, snobby, rude". Such misunderstanding of introversion has also been identified by lay authors. For example, Helgoe (2008) referred to introversion as "misunderstood or devalued" (p.47). Poor understanding of the reasons for introverted behaviour may contribute to difficult interpersonal interactions, bias against introversion, and reduced self-esteem related to introversion deficit beliefs. Efforts to address assumptions and misunderstandings should involve both extending scientific knowledge to include additional, less visible facets of this aspect of personality, as well as improving communication and sharing knowledge of underlying reasons for introverted behaviour with the general public.

13.1.3 Strengths and Limitations of Study 1

Using an online questionnaire was beneficial in that it resulted in a high number of qualitative responses which were generally comprehensive, and which provided extensive data for exploration of participants' views of introversion. The use of the online questionnaire also allowed participants to answer the open-ended questions in their own time and in their own way, without the pressure of the researcher's presence. However, this method it obviously precluded researchers seeking clarification or elaboration from participants in regard to any aspects of their responses. A further limitation could have been that wording the questions to include "good" and "not so good" may have been somewhat leading. Instructions to consider all aspects of introversion in the response, rather than the more direct questions that were used, may have a reduced this leading aspect of the questionnaire. Future research seeking to extend the current findings could use qualitative interviews or focus groups to allow for deeper exploration of lay people's conceptualisations of introversion.

13.1.4 Summary of Discussion for Study 1

The rich data gained in this study allowed for a robust qualitative investigation of how the lay participants from across the introversion-extraversion domain conceptualised introversion. The findings indicated that lay people's view of introversion includes aspects similar to scientific definitions, as well as characteristics evident in lay descriptions of this trait. Descriptors related to managing energy in these findings were in line with lay authors' definitions, but are not commonly included in the conceptualisations that are currently prevalent in the scientific personality literature. In addition, the findings indicated gaps in participants' understanding of introversion. In particular, there seemed to be a lack of understanding of underlying motivations for introverts' behaviour, as well as some confusion regarding the difference between shyness and introversion.

13.2 Discussion of Findings of Phase I Study 2 – Quantitative Exploration of the Relationship between Self-Identified Introversion, Ambiversion or Extraversion and Lay Conceptualisations of Introversion

The aim of Study 2 was to determine any link between self-identified introversion, extraversion and ambiversion and how introversion was conceptualised. Using the themes that emerged in Study 1, chi-square statistical analyses were conducted to examine whether self-identified introversion, ambiversion or extraversion were associated with differences in descriptions of introversion. The findings indicated that the inclusion of descriptors related to Quiet and to Spending Time Alone was significantly related to introversion and extraversion, but not ambiversion. Extraversion was related to including descriptors related to the Quiet theme more often than would be expected in participants' personality was not related to descriptors used, and to including Spending Time Alone less. While self-identified ambiversion was not significantly related to descriptors used, self-identified introversion was.

The findings indicated that in Study 1, self-identified introversion was related to including Quiet less often in descriptions, and to referring to Spending Time Alone more. It may be that introverts do not consider being "quiet" as salient a characteristic of introversion as extraverts do. This is likely to be due to introverts' prioritising of inner experiences (Jung, 1921/1971) which may contribute to less emphasis on interaction with the outside world and therefore less noise and projection of experiences and thoughts to others. Introverts may consider spending time alone to be more central to introversion than do extroverts, which may also arise from the more internal orientation associated with introversion. Further research is needed to clarify what impact differences in conceptualisation of introversion, and perhaps of extraversion as well, may have on mutual understanding, and interpersonal interactions, among people who are more or less introverted.

Another trend towards difference within the sample was identified regarding shyness and introversion. Overall, more than a quarter of the sample identified shyness as a key aspect of introversion, possibly indicating a confusion of shyness with introversion. Endorsement of the shy category may have been more frequent in extraverts' responses than expected, and less frequent in introverts' descriptions. This difference approached statistical significance, suggesting extraverts may be more likely than introverts to equate introversion with shyness. Costa and McCrae (1992) noted that even introverts themselves may make this mistake and "say they are shy when they mean that they prefer to be alone: they do not necessarily suffer from social anxiety" (Costa & McCrae, 1992, p. 15). It is interesting to note that the current results are counter to this. Future research with a larger sample size is needed to more effectively test this trend. Further clarification is important, since confounding shyness and introversion is likely to contribute to lay people's confusion about introversion, and may lead to misinterpretations of introverted behaviour.

In addition, the relationship between identifying as introverted, ambiverted or extraverted, and the use of positively or negatively valence descriptors was also examined, and the associations were not significant. Overall, participants tended to use negative descriptors more than they did positive descriptors. One participant went so far as to state: "I don't see anything good about an introvert" (Participant 64, extravert). These results findings are discussed below.

13.2.1 Study 2 Findings in Relation to Scientific Literature

Study 2 was one of the few reported which contributes empirical evidence regarding personality differences in particular characteristics included in lay people's conceptualisation of introversion. One other study (Hall et al., 2019) previously investigated lay descriptors of Big 5 personality traits, including extraversion. Hall et al. noted that extraversion descriptors were largely positive, that some descriptors found were different from existing conceptualisations, and that there were occasional negative characteristics mentioned (fewer than positive. Their findings seem to indicate that lay people describe extraversion mostly positively. While Hall et al. asked about extraversion, no mention was made of introversion, so caution is needed when interpreting their results here. Their focus on what are generally considered to be the positive end of personality dimensions may have contributed to the more positive patterns of responding. This was different to the patterns evident in the patterns and descriptors in the current research.

In addition, while there have been some studies which have focussed on attitudes towards introverts (e.g.: Ferree & Smith, 1979; McCord & Joseph, 2020; Sun et al., 2022), there has been little reported research regarding the positive of negative valence of the specific language used to describe introversion. Even so, the finding that more negative than positive descriptors were used by participants in the current research when describing

introversion aligns with the observations of personality researchers Costa and McCrae (1992) and Cattell, et al. (1993), as well as with findings in the literature which indicated that introversion is often viewed negatively. For example, Ferree and Smith (1979) found that when considering job applicants, participants were more biased against introversion than they were against race or gender. In the social domain as well, introversion has been found to be viewed negatively. Sun et al. (2022) found that when participants were asked about their own and their friends' best and worse traits, introversion (i.e.: the low end of extraversion) was found to be undesirable. Their participants were harder on themselves than they were on their friends, and rated their own introversion as more problematic than they did that of friends. Sun et al. also noted that participants included more negative descriptors than they did positive, and that this was a pattern previously recognised in the literature. The sense that being introverted is bad, and that one should be more extraverted was also found by Lawn (2019), who noted that participants across the dimension of introversion-extraversion thought they should be more extraverted. People who had strong beliefs that they should be more extraverted had lower wellbeing. This is also in line with the findings of Luong et al (2021) that similar numbers of introverts and extraverts indicated that personality matters, and when it does, extraversion was more valued. The tendency of descriptors in the current study to be more negative may arise from such general a valuing of extraversion to the detriment of introversion.

13.2.2 Study 2 Findings in Relation to Lay Literature

That there are differences in how introverts and extraverts describe introversion seems to align with lay writing (Cain, 2012; Helgoe, 2008), which has highlighted misunderstandings that can occur between people with different levels of introversion-extraversion. Cain (2012) and Laney (2002) also noted that introversion was considered to be

a less desirable trait than extraversion, and that there seems to be a bias against introversion in Western cultures.

13.2.3 Strengths and Limitations of Study 2

This was the first study to investigate a link between self-identification as introverted, ambiverted and extraverted and conceptualisation of introversion. However, the findings of Study 2 must be considered in light of its limitations. In the current study, participants' introversion/ambiversion/extraversion was determined by self-identification. Hence, comparison of these findings with psychometrically identified levels of introversion or extraversion may be limited. In addition, while the sample size of Study 1 was more than adequate for the qualitative analysis and identification of meaningful themes in that study, the number of participants from each self-identified personality group endorsing each theme was small at times which impacted on Study 2 analyses. The chi-square analyses conducted in this second study required that a theme be endorsed by more than five participants of each self-identified personality trait (introversion/ambiversion/extraversion). This was not always the case. As a result, for some themes it was not possible to determine whether such they were associated with self-identified personality traits. In addition, sample size, and numbers of participants endorsing each theme, also affected the ability to detect significance.

13.2.4 Summary of Discussion for Study 2

Examination of patterns of descriptors used by participants self-identifying as introverted, ambiverted, or extraverted suggested interesting differences between these groups. Unlike the ambiverts, self-identified introverts and extraverts revealed patterns of descriptor endorsement that differed from what would be expected if their personality was not playing a role in their conceptualisations of introversion. The differences related to the

use of descriptors contributing to themes of Quiet and Spending Time Alone. References to Shy may also have been affected by personality, but significance might not have been detectable due to the relatively small sample size.

13.3 Discussion of Findings of Phase II Study 3 - Exploration of Lived Experience of Introversion

The third study reported here involved the qualitative analysis of written responses from 10 self-identified introverts (6F, 4M) who took part in an online survey regarding their psychosocial experiences. The aim of this study was to explore introverts' lived experience in key domains of psychosocial functioning. The findings of this study are considered below with reference to a) current empirical knowledge regarding psychosocial functioning and introversion, and b) both lay and scientific conceptualisations of introversion. In addition, methodological strengths and limitations of this study will be discussed.

13.3.1 Study 3 Findings in Relation to Scientific and Lay Literature

The domains of psychosocial functioning explored in Study 3 were Self-identification as Introverted, Acting as Extraverted, Family of Origin, Education – Memories of School, Occupation, Recreation, Being Alone, Being Social, Being Romantic, and Dealing with Tiring Experiences. As identified in Chapter 12 above, 13 superordinate themes that emerged repeatedly across several of the domains of psychosocial experience that participants were asked about. These themes will form the focus of the discussion specific to the findings of Study 3. In the sections below, existing scientific and lay knowledge related to superordinate cross-domain themes are discussed.

The 13 superordinate themes that emerged across multiple psychosocial domains of experience were: Importance of interpersonal experiences (across all ten domains), Importance of comfort and familiarity (across nine domains), Awareness of others' expectations and needs (seven domains), Importance of time alone (across seven domains), Preference for small numbers of people (six domains), Doing what comes naturally (six domains), Enthusiasm and passion (five domains), Acting extraverted (five domains), Being overstimulated (five domains), Depletion (five domains), Self-reliance (four domains), Attitude towards attention (four domains), and Quietude (three domains). The alignment of each of these themes with current scientific literature and lay publications is outlined below.

13.3.1.1 Importance of Interpersonal Experiences

Themes related to the importance of interpersonal relationships across all 10 domains of experience, highlighted the salience of interpersonal experiences for the self-identified introverts in this research. Participants referred to being aware of, adapting to and prioritising social expectations and requirements. They described a keen interest in others and desire for deep mutual understanding and connection, and they recognised the impact their preferences and behaviour had on others. Participants wrote about making adjustments out of consideration for others, and efforts to meet the needs of particular interpersonal situations. In addition, they described their own strategies to maximise their own capacity for meaningful, effective and rewarding interpersonal engagement, and to rest and recharge after such interactions. Such prioritising of interpersonal experiences seems counter to scientific personality theories which associate introversion with low sociability or not liking to be around people (e.g.: Costa & McCrae, 1992; Haddock & Rutkowski, 2014). The introvert experience as described by our Study 3 participants indicated that seeking to be with others, and engaging in satisfying interpersonal interactions, is important across all domains of

psychosocial experience. Participants were very socially aware, and even sociable, albeit in a way that was different from what may generally be considered to be typical of extravert sociability. It could be that there are aspects of introvert sociability that are missed in current conceptualisations and measures of this important aspect of personality.

Furthermore, the desire and choice to spend time with others, and to act extraverted given particular contexts and motivations, is consistent with Little's (2020) concept of "strategic enactment" of free (counter-dispositional) traits in order maintain and progress personally salient projects and goals. According to Little, although an individual's relatively stable personality characteristics may be introverted, they may also be able to enact free traits to behave as extraverted when in such characteristics are needed to achieve valued goals. In the current study, most participants clearly valued social connection and they prioritised contributing to positive outcomes for others. This was evident in participants' chosen work (health, education, policing) and leisure activities (volunteering in community, church and sporting settings). In addition, social interaction to engage in and progress one's own valued activities (such as music, and faith) were also important enough to participants to motivate accessing free traits beyond their inherent dispositional tendencies.

The positive impact of the social contributions evident in Study 3 participants' interpersonal interactions was also in keeping with Sun and colleagues (2017) research. Sun et al. found that social contribution mediated the relationship between extraversion and positive affect. They identified particular social experiences that were associated with positive emotions and suggested that it may be possible that a person's sense of wellbeing could be improved by engaging in such activities (i.e.: those that involve social contribution), even without necessarily acting more extraverted. The present findings also indicated that making a contribution may be of particular importance to the introvert experience.

In relation to lay publications, the Study 3 finding as to the salience of interpersonal experiences for participants reflected aspects included in the lay literature. For example, when defining the term introversion, Laney (2002) highlighted introverts' liking of people, enjoyment of particular social interactions, and capacity to socialise effectively. Laney also pointed out that some particular kinds of social interactions (such as in smaller groups, or when something is a priority for the introvert) are more fitting for introverts than others. Similarly, Cain (2012) pointed out that introverts could be socially adept and may also like parties and working collaboratively, but that after a time involved in these activities, they would be likely to want to return to a familiar, comfortable place and quieter activity. Helgoe (2008) included responses to her informal survey of people within her introvert networks in her book. When asked what they wanted extroverts to comprehend, one person replied: "That we are social too" (p. 6).

13.3.1.2 Importance of Comfort and Familiarity

Little existing literature has been found regarding introverts' preference for comfort. One recent article was identified which seems consistent with this finding in the current study. Fingerman et al. (2022) examined the relationship between personality and characteristics of participants' living space in older adults. They found extraversion was related to newness of furnishings, but not comfort (Fingerman, et al., 2022). In other words, more introverted older adults were more likely to have older (and thus more familiar) furniture, although the apparent comfort of that furniture was not actually related to level of introversion or extraversion.

Counter to the findings of the current study, two studies (Beheshti, et al., 2019; Kallio, et al., 2020) found that higher extraversion was associated with greater sensitivity and stress related to uncomfortable environmental factors (room temperature and stuffiness). On the

other hand, findings of Study 3 seem to be more in line with those of another study (Shepherd et al., 2015), which found that more introverted participants were more annoyed by lower-level noise as compared to extraverts. It seems that what is or is not comfortable varies for different people. Unfortunately, given the nature of the online questionnaire in the current study, there was no opportunity to clarify what participants meant when they referred to comfort and its impact on their preferences, behaviour, and emotions and cognitions.

When participants in Study 3 referred to comfort their responses more often prioritised psychological comfort and familiarity, than physical experiences or ergonomics. In regard to familiarity, Fingerman and et al.'s (2022) study indicated introverts' preference maintaining familiarity in their living space and participants in the current study referred to the importance of familiarity across a range of domains of functioning. The prioritising of familiarity here may also be consistent with findings in research regarding novelty-seeking, the opposite of a preference for familiarity. Given that extraversion has been found to be associated with novelty seeking (Goclowska et al., 2018), the current finding is not surprising. The preference for familiarity is also similar to Jung's (1931/1971) description of the introverts as those "who, at the moment of reaction to a given situation, at first draw back a little as if with an unvoiced "No", and only after that are able to react" (p. 533). Jung considered this initial drawing back as due to the introvert's inward, subjective orientation, in contrast to the extravert's outward orientation towards others. Jung's description of the introverted attitude reflects a preference for familiarity, a tendency to draw back for consideration before action, and the capacity to act and engage with novelty, and the external world once reflection and consideration has occurred. It may be that such a stepped process when faced with the unfamiliar is related to arousal and discomfort in those who are introverted. Such a process may contribute to the need to manage the stimulation experienced when engaging in day-to-day activities that was evident when the Study 3 participants

referred to their preference for comfort and familiarity, and the influence of these on their interpersonal interactions.

13.3.1.3 Awareness of Others' Expectations and Needs

Themes related to being aware of other people's needs, responses and expectations were evident across seven of the ten domains of inquiry explored in Study 3. Such an awareness of other peoples' points of view has not been identified as a particular characteristic of introversion in scientific literature. It may be more in line with characteristics commonly considered to be aspects of the personality trait labelled agreeableness. One of the consistently identified components of agreeableness is an aspect which has been labelled "Compassion" (Crowe et al., 2018; DeYoung, et al., 2007). The perspective-taking evident in many of Study 3 participants' responses seemed to be indicative of keen empathy or compassion. According to Crowe and colleagues (2018) "concern for others and sympathy for those in need is a well-defined and specific trait that is central to the Agreeableness domain" (p. 782).

In addition to considerations regarding agreeableness, the present finding of an awareness of others' needs and expectations may align with findings in the scientific literature, such as disliking one's own introverted behaviour (Sun, et al., 2022), and believing that one should be more extraverted (Lawn et al., 2019). Future research further exploring the effect an awareness of others on introverts' psychosocial functioning and wellbeing is clearly needed.

13.3.1.4 Importance of Time Alone

Themes related to the need for spending time alone arose across seven of the ten domains of experience investigated in Study 3. Participants described being alone as

preferred, comfortable, natural and necessary. This was in line with several scientific definitions of introversion, including such diverse approaches as those of Jung (1971/1923) and Costa and McCrae (1992). Participants wrote about spending time alone as being necessary in order to have the capacity to manage experiences and interactions across a range of domains of functioning. They also described time alone as being important for recovery and recharging. The need expressed by participants to ensure time on their own in order to function at their best across a range of domains is in line with Jung's (1921/1971) assertion that while people are generally capable of operating in a way counter to their natural preference (i.e.: introversion in this case), doing so for too long will have detrimental effects. Little (2014) also wrote that prolonged counterdispositional behaviour is not sustainable, and can be detrimental to wellbeing. Jacques-Hamilton et al.'s (2019) research supported this view. They found that for their more introverted participants, acting extraverted resulted in less increase in positive emotions, a greater increase in negative emotions and tiredness, while also resulting in participants feeling less authentic.

The current findings also align with aspects of introversion described in lay publications. For example, Helgoe (2010) noted that introverts flourish through having time alone. Cain (2012) included the term "solitude-seeking" in her explanation of introversion. Similarly, in a recent Forbes article, Castrillon (2022) wrote that introverts "gain energy from their alone time". According to Laney (2002), spending time alone is so necessary to more introverted people, that without enough time alone, or without being required to interact, introverts can become edgy and distressed. The point that an introvert can experience time alone even with other people around, as long as one is not being disturbed by them, was also described by Helgoe (2008), who wrote about the pleasure of being "among, yet alone" (p.114), being out and about yet choosing to remain anonymous, quietly and calmly observing. She wrote that by "staying *out* of the scene even as he is in the midst of it [an]

introverted observer can draw energy from society [by] focusing outside while staying inside" (p. 113). Being alone in the crowd can be a skill and a pleasure for introverts. These examples from lay literature illustrate the similarity of participants' descriptions in the current study regarding their time alone to those in writing by lay authors. This highlights the value and importance of solitude for introverts.

While the current findings of the necessity and value of spending time alone is reflected in existing lay and scientific publications, extending the existing evidence regarding the interaction between introversion, alone-time, counterdispositional behaviour and wellbeing could help identify ways for introverts optimise psychosocial functioning.

13.3.1.5 Preference for Small Numbers of People

In Study 3, a theme that recurred across six of the ten domains of inquiry was the preference for interacting with small numbers of people. This finding extends the existing scientific literature by identifying a possible explanation for Pollet et al.'s (2011) finding that introverts have smaller social networks. It is likely that smaller networks could result from the preference, such as that expressed by participants in Study 3, for engaging with individuals or small groups of people, and the aversion to large groups or crowds. Current dominant scientific conceptualisations of introversion make reference to the lower quantity of social connections associated with introversion, as compared to extraversion. This can be seen in reference to traits such as low sociability (e.g.: Smillie et al., 2018). Little (2014) noted that avoiding large groups and the stimulation associated with them, might be interpreted as being due to an antisocial dislike of people. However, he highlighted that such interpretation is in error, and is more likely to be related to introverts' management of biological factors associated with introversion, including higher baseline arousal (Wilt & Revelle, 2009). Jung (1921/1971) also noted that in a comfortable, relaxed context an

introvert, “relaxes into complete extraversion” (p. 287). Such experiences were described by participants in the current research, who also referred to spontaneously acting like extroverts when with small numbers of people. For example, Participant 9 wrote: “I can come across as hilariously funny and entertaining if I have a small audience of people I know”. Such behaviour seems contrary to the view found in some scientific conceptualisations that low gregariousness or low sociability is inherent to introversion. It seems clear that further understanding and empirical exploration of the reasons for, and dynamics of, introverts’ management of interpersonal interactions is needed.

The emergent theme of preferring small numbers of people seen in Study 3 participants’ responses across familial, social, educational, occupational, and recreational domains seemed to align better with lay understandings of introversion, than with scientific conceptualisations. For example, Cain (2012) noted introverts’ preference for more intimate social interactions, and Helgoe (2008) wrote that introverts “prefer spacious interactions with fewer people” p. 7. The experiences of participants reported in Study 3, along with descriptions written by lay authors, have indicated that it is important to consider the context of, and motivations for, interpersonal choices and behaviour of introverts in order to more accurately understand this trait.

13.3.1.6 Doing What Comes Naturally

The theme regarding doing what comes naturally was identified across six domains of inquiry. This recurring theme is in line with the scientific view that introversion is a key aspect of temperament and personality and has a biological basis (e.g.: DeYoung, 2010; Eysenck, 1970; Jung, 1931/1971; Rothbart, 2007). Little (2014) referred to behaviour resulting from biogenic influences could reasonably be considered to be “natural”. Little emphasised that social and individual causes also interact with biological factors to contribute

to what may be natural for a particular individual in a particular context. This may explain why references to what came naturally to our participants seemed contradictory at times. For example, they wrote acting extraverted as coming naturally in some contexts, yet there were also descriptions of feeling inauthentic and uncomfortable when acting extraverted. The sense of particular behaviour or activities coming naturally to an introvert is likely to be influenced by biological, contextual, and individual factors. For the most part, participants in the current study referred to acting naturally as being positive. Such descriptions of the benefits of doing what comes naturally echo Lawn et al.'s (2019) suggestion that being true to one's nature is good for wellbeing, and are in line with the recognition that extended counter dispositional behaviour may be detrimental (Jung, 1931/1971; Little, 2014).

The theme regarding the introverted experience and related behaviour as relating to one's nature is also in line with views expressed in lay publications. Study 3 participants noted at times that they had to change their natural behaviour to fit with what others expected of them. Lay authors have also noted that a gap between societal expectations of what is normal and healthy, and the inherent traits of introversion. Laney (2002) wrote that traits consistent with extraversion are general considered to be the natural result of developing in a normal, healthy way, and like other lay authors (e.g.: Cain, 2012; Helgoe, 2008) described the pressure felt by introverts to hide or change introverted aspects of their personality and behaviour. These authors also wrote of the detrimental impact of extensive denial of one's nature, to fit with external expectations. Storr (1997) described the negative effects of living a life that is inconsistent with one's nature, with people becoming "neurotic at the mid-point of life because, in some sense, they had been false to themselves, and had strayed too far from the path which Nature intended them to follow" (pp.191-192). The findings of the current study that characteristics of introversion come naturally to introverts, and the effects

(positive and negative) of acting differently from one's natural disposition are consistent with aspects of both scientific and lay literature.

13.3.1.7 Enthusiasm and Passion

The finding that enthusiasm and passion were themes that emerged from participants' responses in Study 3 is counter to literature regarding introversion and enthusiasm or passion. In fact, DeYoung et al. (2007) identified enthusiasm as one of the two factors that comprised extraversion in Big Five Aspects Scale (BFAS), with low enthusiasm indicating introversion. The enthusiasm measured by this scale is strongly weighted towards ease with socialising, with half of the items that comprise the enthusiasm facet referring largely to the ease and sped of establishing new interpersonal connections, e.g.: "I make friends easily" and "I am hard to get to know (R)" (DeYoung et al., p. 888.). However, participants in Study 3 expressed enthusiasm for different aspects of their experiences. Regarding interpersonal interactions, the self-identified introverts in this study expressed enthusiasm for established, close relationships. They also wrote about enthusiasm and passion for particular leisure, educational or work activities that they pursued. It appears that the foci of enthusiasm identified in the BFAS, and in research using that measure, misses the factors that were of most interest to introverts in the current research, and possibly those in the broader population. The ease of quickly getting to know others and pervasive cheerfulness that may be valued by those who score higher on extraversion, may not be so important to introverts, such as those in the current study. The latter prioritised deep connections with people, and were also passionate about opportunities to immerse themselves in learning and valued experiences.

The conceptualisation of passion in the scientific literature, as "a strong inclination towards an activity that people like (or even love), that they find important and in which they

invest time, and energy" (Vallerand et al., 2003, cited in Balon et al., 2013, p.60), was reflected in participants' responses in Study 3. However, the finding regarding passion as a key theme in the experience of our introverted participants was at odds with other scientific research, which has tended to find that introversion is associated with reduced passion. For example, Dalpe et al. (2018), in investigating the role of personality in passion, used a dualistic model of passion which includes harmonious and obsessive passion. They found that extraversion was positively related to both the more adaptive aspect of passion (harmonious) as well as the more problematic obsessive passion. Thus, the results of that study indicated that a person who is more introverted is likely to have less passion. An earlier correlational study by Balon and colleagues (2013) found a significant positive relationship between extraversion and harmonious passion, but not obsessive passion.

In contrast to the scientific literature, lay publications have identified enthusiasm and passion as aspects of the introvert experience. For example, in Laney's (2002) list of qualities associated with introversion, she included: "Often listen but talk a lot about topics of importance to you" (p. 29). Inclusion of "importance" and talking "a lot" echo the importance and investment of time and energy of the scientific definition of passion noted above. In fact, the distinction of being motivated to talk a lot, due to the topic being valued, highlights the importance of passion for being motivated to engage in and extend conversation. The significance of passion or enthusiasm as contributing to introverts' behaviour is also evident in Cain's (2012) assertion that "introverts stick with their enthusiasms" (p. 59). Introverted participants in Study 3 wrote about valued experiences and activities and being motivated to plan or adjust behaviour to spend time and energy pursue them, including when this involved socialising. Given the emergent themes regarding the importance of managing energy and guarding time to be alone, such pursuit of passions highlighted their importance to the participants. It may be that the current findings indicate there are qualitative differences in the

experience and expression of enthusiasm and passion for introverts that have been missed in previous research.

13.3.18 Acting Extraverted

Descriptions of behaving in ways counter to what came naturally, i.e.: acting extraverted, featured in responses of all Study 3 participants, and arose across five of the ten domains of inquiry. Participants explicitly differentiated extraverted behaviour from behaviour that was more typical for them, reporting that when acting extraverted, their behaviour was more social, talkative, assertive, entertaining and confident. These descriptors fit well with some aspects of scientific conceptualisations of extraversion (Smillie et al., 2018). On the other hand, the emotions that participants wrote that they experienced when acting extraverted did not always align with the positive emotions often identified in the scientific literature. The context of and reason for extraverted behaviour seemed to be important. Participants in the current study wrote of extraverted behaviour feeling quite natural when they felt comfortable, such as with small groups of friends or family, or when motivated by passion, enthusiasm or enjoyment. In this case, the positive emotions preceded, and even allowed for or inspired, extraverted behaviour. Most research to date has considered factors such as positive affect and wellbeing (e.g.: Anglim et al., 2020) or passion (e.g; Vergauwe et al., 2020), as outcomes of extraverted behaviour. Recent research has found that wellbeing can precede and predict extraverted behaviour. Further research is needed to explore such interactions. Regarding consequences of acting extraverted, Study 3 participants reported both positive affect, such as enjoyment or a “buzz”, and negative affect, such as feeling fake, uncomfortable or foolish, when behaving as extraverted. These findings are in line with those of Jacques-Hamilton et al. (2019) who discovered that when asked to act extraverted, participants who were more introverted experienced a smaller increase in

positive affect, and felt more negative emotions, greater inauthenticity, and more fatigue. Feeling tired was also reported by participants in the current study, who wrote that acting extraverted often took effort, could be challenging, and necessitated recovery time afterwards.

It is important to recognise that behaviour is not all there is to personality, consideration of how the identified behaviour relates to the enduring, cognitive and emotional inner / subjective experience must not be overlooked.

The theme regarding acting extraverted also echoed descriptions found in lay literature (Cain, 2012; Helgoe, 2008; Laney2002). Laney wrote that there are times when "extroverting" is necessary, and Helgoe wrote the risks (self-alienation) and benefits of acting extroverted (growth and connection). Throughout her book, Cain described pressure felt by introverts to conform with what she referred to as the "extravert ideal". She wrote that while many introverts may be capable of acting out of character, this can feel inauthentic, and may involve a risk of burning out due to prolonged counterdispositional behaviour. She highlighted an important qualitative difference in motivations underlying extraverted behaviour by introverts. Some introverts may act extraverted because they believe there is something wrong with them and view their own nature as dysfunctional. Such beliefs may be due to internalised prejudice against introversion (Fazio et al., 1981) and damaging extravert deficit beliefs (Lawn, et al., 2019). On the other hand, Cain noted that some introverts act extroverted when motivated by passion for particular endeavours, echoing Little's description of counterdispositional behaviour in the interest of pursuing core personal projects. Such reasons for extraverted behaviour may be protective and may mitigate discomfort and dissonance related to that behaviour. Cain also highlighted that even when positively motivated, acting extraverted can still contribute to depletion and should be balanced with time alone to recover.

13.3.1.9 Being Overstimulated and the Experience of Depletion

The superordinate themes of the Effect of Magnitude and the experience of Depletion will be discussed together here, as they relate to each other and to similar scientific and lay literature. These superordinate themes each arose across five domains of inquiry.

Themes related to the intensity of stimulation associated with particular experiences that emerged in Study 3 relate to literature regarding physiological aspects of introversion. Participants described finding more stimulating contexts, such as busy, noisy settings, or larger groups of people, or being the centre of attention as difficult, unpleasant or tiring. Existing literature regarding implications of baseline cortical arousal levels, (Eysenck & Eysenck, 1967), dopaminergic systems (Smillie et al., 2019), and brain architecture (Adelstein et al., 2020) confirm the biological aspects related to cognition and emotion which underpin introversion. According to Boyle et al. (2008), stronger physiological and biochemical reactions may explain some aspect of introversion. For example, Lu and Wang (2017) found that extraversion/introversion was related to physiological reactivity to social stressors. They found that lower extraversion (higher introversion) was associated with higher reactivity, less recovery, higher and subsequent sensitivity to social stressors. Such outcomes may explain introverts' choices and behaviour regarding interpersonal interactions, as well as indicating the importance of recovery time away from social stressors for introverts. In addition, such differences in physiological reactivity may also exist in the presence of other physiologically arousing factors, such as noise and busy-ness, as is indicated by the findings in Study 3 in the current research. The current findings are also in line with research by Leikas and Ilmainen (2017), who found that acting extraverted (state extraversion) was related to increased happiness, but that participants felt mentally depleted 3 hours later. Interestingly, this was true regardless of participants' level of introversion. In contrast,

DeVries and van Heck (2002) found that personality did affect fatigue, as introversion contributed to the prediction of fatigue. Study 3 findings indicated that characteristics relating to magnitude of stimuli can impact on the effect of particular experiences. Therefore, further research is warranted examining whether the factors that moderate levels of stimulation (such as noise, numbers of people, nature of the task or interaction, etc.) would impact on depletion and recovery and their relationship to introversion.

The themes relating to Magnitude and Depletion are also common to lay literature. For example, at the beginning of her book, Laney (2002) highlighted depletion and excess stimulation that introverts experience as key reflection points for her readers. She also wrote that recovering lost energy can be challenging for introverts, and that to manage this introverts need to anticipate how much energy will be needed for their day-to-day interactions and experiences, and to plan to save or restore energy in order to be able to do what they want and need to do without becoming overly drained. Such efforts to anticipate and manage energy and stimulation were also evident in our participants' responses in Study 3. Other lay authors, including Cain (2012) and Helgoe (2008, 2010) also refer to depletion due to overstimulation and the ways introverts work to manage this. Such references to proactively planning and managing demands on and restoration of energy levels featured in Study 3 participant responses and in lay writing, yet there is little reference to this aspect of introversion in the scientific literature.

13.3.1. 10 Self Reliance and Attitude towards Attention

The superordinate themes of Self- reliance and Attitude towards Attention are discussed together since these two characteristics appeared to be linked. Study 3 of the research reported here these two themes each emerged across four domains of experience. In multiple domains, participants in Study 3 described being self-reliant and disliking being the

centre of attention. There are instances where these findings reflect scientific conceptualisations. For example, these themes are in line with traits of introversion described by Cattell (see Cattell & Mead, 2008). Lee and Ashton (2018) also referred to introversion being associated with discomfort with attention in their description of introversion (low extraversion scores) in the HEXACO model of personality.

Themes of self-reliance and disliking attention also reflect introversion as described in lay publications. For example, Helgoe (2008) wrote of driving to a different city to sit and write in a café there in order to take advantage of the spaciousness and freedom of anonymity. She indicated that even mundane, friendly attention from a neighbour or acquaintance can feel disruptive. According to Helgoe, in spite of kind, amicable intentions, such friendly overtures can cause an introvert to feel like the need to constantly fend off interruptions and intrusions. Such a dynamic may contribute to the preference for self-reliance described by participants in the current study, such as can be seen in the following quote by Participant 3, who wrote "I really hate group assignments. I would much prefer to do more work on my own".

13.3.1.11 Quietude

In Study 3 findings, the superordinate theme related to Quietude recurred across three domains of inquiry. This theme reflected both introverts' tendency to be quiet, as well as the importance of quiet time and quiet spaces for their sense of wellbeing. Reference to these aspects of introversion can be found in the scientific literature. For example, in their overview of extraversion, Smillie et al. (2018) noted that many traits associated with extraversion reflect tendencies towards being loud or talkative, and an enjoyment of lively, stimulating environments. By extension, introverted traits tend to be the opposite. Overall, introversion as described in scientific literature has tended to include being quiet or reserved, and being more

likely to choose calmer, less stimulating environments or activities. Even so, there is also recognition in the literature that introverts can and will choose to be more talkative or actively involved in more invigorating activities when motivated by enthusiasm, values, or necessity. Little (2008), for example, put forward a quality of lives model in which the enactment counterdispositional free traits may occur in order pursue goals and projects that are important to one's sense of self. Little also noted that excessive free-trait behaviour can be detrimental. So, while introverts can and do engage in more active, gregarious behaviour in busier, noisier settings, they will need to return to a more natural, quiet and calm state in order to avoid negative outcomes which could include anxiety, exhaustion, burnout or illness (Jacques-Hamilton et al., 2019; Little, 2008).

Lay publications also have referred to introverts' preference for quiet surroundings and the tendency to be quiet. Laney (2002) wrote that introverts "avoid crowds and seek quiet" (p.49), and explained that introverts need time and space for quiet reflection to recover and regain energy. For Cain (2012), quiet characteristics of introversion were so important that she titled her book "Quiet: The Power of Introverts in a World That Can't Stop Talking". This title presents introverts as quiet, in contrast to those who talk continuously. While Helgoe (2010) was less explicit about identifying quietness with introversion, reference to introverts being and needing quiet are peppered throughout her book. For example, she referred to the "conveniently quiet forum called the web" (p.13), wrote of realising at school that her own preference for quiet was not good, and described the comfort and ease of being around other quiet people. Like both lay authors and scientific writers, characteristics related to being and seeking quiet were integral to the current research participants' description of the introvert experience.

13.3.2 Strengths and Limitations of Study 3

Study 3 addressed the gap in existing scientific explorations of introversion by providing a comprehensive exploration of self-identified introverts' lived experience across the broad range of domains of psychosocial functioning. The rich data gained in participants' responses provides valuable information which can contribute to a deeper understanding of the introvert experience. A further strength of the study was that participants were selected from across the adult age range, allowing for insight into the psychosocial functioning and lived experience of self-identified introverts across the adult lifespan. Findings from Study 3 may contribute to future evaluation and revision of existing models of introversion.

However, the findings of Study 3 must be considered in light of its limitations. It is possible that self-selection bias impacted on the study sample. While the 10 participants for Study 3 were randomly chosen from the 120 self-identified introverts who responded to the survey, the broader sample of respondents chose to participate in the online survey. It is possible that particular characteristics such as an interest in personality, or a desire to be helpful may have influenced the choice to participate in the research. In addition, not all of the larger initial sample completed the written qualitative sections of the survey, further contributing to a likely self-selection bias in the participants for Study 3. A further limitation of the study relates to the method of data collection, which involved an online asynchronous survey with no follow up. This approach meant that it was not possible to clarify responses or ask for further information or extension of responses. Future research should attempt to address these limitations by using a range of approaches to recruitment, and by using a range of methods (e.g.: face to face interviews, live chat, focus groups) to gain participants' responses.

Finally, in reporting the findings of Study 3, the number of participants who endorsed the themes, was quantified using percentages. This was in keeping with the reporting style

established earlier in the thesis for Study 1. However, given the smaller sample of 10 participants, it may be that using percentages was unnecessary, and an alternative approach to reporting the findings could have been preferable.

13.3.3 Summary of Discussion for Study 3

Study 3 used self-identified introverted participants' written responses to a broad ranging questionnaire concerning domains of psychosocial experience, to explore their thoughts, and emotions, in addition to behaviours, with a view to gaining an understanding of the introvert experience. Counter to what one might expect based on scientific definitions of introversion, findings of this study do not reveal a lack of interest in, or ability for, interpersonal interaction. Experiences related to fear or anxiety were also not a strong feature of these findings. Rather, findings of Study 3 indicated a keen awareness of and interest in other people, and a strong desire to interact with others including sharing mutual experiences, contributing to others' welfare, and seeking meaningful interactions. In addition, efforts to balance interpersonal experiences with time alone and independence were important to Study 3 participants' interpersonal capacity. Furthermore, the findings highlighted the importance of comfort and familiarity in contributing to self-identified introverts' psychosocial functioning.

The findings of Study 3 indicated many commonalities between participants' lived experience and factors highlighted in lay writing. These included the significance of interpersonal experience, the importance of time alone, the presence of enthusiasm and passion, and management of fatigue and depletion. Several key aspects of the experience of the self-identified introverts in this study were well represented in lay publications.

13.4 Integrative Discussion Across the Research Program

In the section below, the relationships between the lived experience of introverts as described in Study 3 are considered in relation to aspects of lay conceptualisations of introversion as revealed in Studies 1 and 2. In addition, the combined findings of this program of research as related to scientific descriptors of introversion are discussed.

13.4.1 Lived Introvert Experience as Related to Lay Conceptualisations of Introversion

Several commonalities were evident across the findings of the three studies described in this thesis. This indicates that Study 1 participants' lay conceptualisations of introversion reflect some key aspects of the introvert experience, as described by Study 3 participants. Such common aspects will be described below.

In both lay conceptualisations and participants' lived experience of introversion, themes related to interpersonal experiences emerged. Participants in Study 1 included aspects related to interpersonal behaviour and outcomes related to interpersonal interactions. Such factors were also reflected in Study 3 participants' descriptions of the importance of interpersonal experience, their awareness of other people's expectations, needs and assumptions, their attitude toward attention of others, and their preference for interacting with small numbers of people at any one time. Furthermore, references to self-reliance, spending time alone, being and preferring quiet, valuing and seeking comfort, and to managing energy / avoiding depletion were also revealed in both lay conceptualisations and experience of introversion. Such notable areas of overlap indicated that, to some degree, the way lay people conceptualise introversion may indeed reflect the introvert experience.

Consideration of Study 1 and Study 2 findings in conjunction with those of Study 3 provides some further depth. In Study 1, the theme Spend Time Alone arose from 56% of participants descriptions of introversion. When associations between themes identified in

Study 1 and participants' self-identification as introverted, ambiverted and extravert were explored in Study 2, introverted participants were found to be significantly more likely to include Spend Time Alone in their descriptions of introversion. Subsequently, in Study 3 the superordinate theme of the "importance of time alone" was found to have emerged across seven of the ten domains of inquiry, highlighting the importance of spending time alone as a component of participants' lived experience. In combination, these findings from Studies 1, 2 and 3 highlight that spending time alone was a key aspect of introversion as conceptualised and experienced by participants in the current program of research.

The theme of Quiet revealed some distinctions between conceptualisations and lived experience of introversion. While terms evocative of "quiet" appeared in 47% of participants' responses in Study 1, endorsement of this theme was found to be influenced by self-identified extraversion or introversion in Study 2, with extraverts more likely to include this theme in their descriptions, while introverts included "quiet" less. A lower emphasis on "quiet" was also evident in self-identified introverts' reflections on their lived experience in Study 3. Here, while the superordinate theme of "quietude" emerged in three of the ten domains of inquiry, it was not included as frequently as 12 other superordinate themes. This indicates that for self-identified introverts, aspects other than being or seeking quiet are more central to their lived experience.

Even so, while the above important commonalities were evident across the Studies 1, 2 and 3, some aspects of the introvert experience were not included in the conceptualisations of introversion as described by Study 1 participants. Key aspects of the Study 3 introvert experience which were not described in Study 1 related to introverts' passion and enthusiasm, susceptibility to overstimulation, and their attitude towards attention. In addition, a recognition that while some aspects of the introverted experience feel natural, counterdispositional characteristics were also an important aspect of the experience of the

introverted participants in Study 3. These overlooked aspects largely related to the inner experience, attitudes and motivations of introverts.

13.4.2 Lived Introvert Experience and Lay Conceptualisations of Introversion as Related to Scientific Models

When comparing scientific operationalisation of introversion with the lay views (Study 1) and experiences of introversion (Study 3) identified in the current research, areas of agreement with, and divergence from, scientific models are evident. Smillie et al.'s (2018) overview of extraversion, and by extension introversion, provides a clear summary of existing frameworks, as can be seen in their table summarising traits of extraversion found in several models of extraversion. That table is reproduced here in Table 13.1 below. The intermediate and facet levels included in Smillie et al.'s table provide a useful basis for comparison of scientific definitions of extraversion-introversion to the findings of this thesis. The table presents characteristics of extraversion across several personality frameworks. Given that introversion is generally defined as the opposite pole of extraversion, the contrasting terms were used to consider the integrated findings of the current research as they relate to scientific definitions. Several similarities and differences can be seen.

In comparing the findings of the present research program with current scientific models of introversion, low assertiveness seems to be a common inclusion. Assertiveness is included frequently in the table below and has been a characteristic ascribed to extraversion across multiple frameworks. By extension, scientific views of introversion have tended to include low levels of assertiveness. Low assertiveness can include characteristics such as being reserved, quiet, shy, and disliking attention. Such traits have also been evident in the lay conceptualisations and experience of introversion in the research reported here.

Table 13.1

Extraversion at Different Levels of the Personality Trait Hierarchy (Smillie et al., 2018, p.120).

Level of hierarchy	Examples of traits, grouped by model/framework
Domain level	• Extraversion (e.g., BFAS; NEO-PI-R, BFI-2; HEXACO, Little Six, EPQ-R, AB5C) • Positive emotional temperament (e.g., MPQ; Tellegen, 1982) • Surgency (e.g., CBQ; Rothbart, Ahadi, Hershey & Fisher, 2001)
Intermediate level(s)	• Assertiveness and enthusiasm (BFAS; DeYoung et al., 2007) • Sociability and impulsivity (see Rocklin & Revelle, 1981) • Social dominance and social vitality (see Helson & Kwan, 2000) • Assertiveness, sociability, and activity level (BFI-2; Soto & John, 2016) • Assertiveness, enthusiasm, and sensation seeking (see Quilty, DeYoung, Oakman, & Bagby, 2014) • Sociability, social boldness, social self-esteem, and liveliness (HEXACO-100; Lee & Ashton, 2018) • Social potency, achievement, social closeness, and well-being (MPQ; Tellegen, 1982)
Facet level	• Assertiveness, activity, gregariousness, warmth, excitement seeking, and positive emotions (NEO-PI-R; Costa & McCrae, 1995) • Assertiveness, activity, sociability, expressiveness, ambition, dogmatism, and aggression (EPP; Eysenck, Barrett, Wilson, & Jackson, 1991) • Assertiveness, poise, leadership, gregariousness, sociability, talkativeness, friendliness, self-disclosure, and provocativeness (AB5C; Goldberg, 1999)
Nuance level	• Indexed by individual items of the NEO-PI-R (e.g., "Likes attending games"; see Mõttus, Kandler, Bleidorn, Riemann, & McCrae, 2017)

Note. AB5C, Abridged Big Five–Dimensional Circumplex; BFAS, Big Five Aspects Scales; BFI-2, Big Five Inventory–2; EPP, Employee Personality Profile; EPQ-R, Eysenck Personality Questionnaire—Revised; HEXACO, Honesty–Humility, Emotionality, eXtraversion, Agreeableness, Conscientiousness, Openness to experience; MPQ, Multidimensional Personality Questionnaire; NEO-PI-R, NEO Personality Inventory—Revised.

There were several aspects of introversion that differed in the current research as compared to scientific models. At the domain level, while lay participants in Study 1 did refer to negative emotional aspects of introversion in their conceptualisations, in Study 3 introverted participants' descriptions of their experience across multiple domains of psychosocial functioning included reference to a range of emotional experience, and did not seem to indicate a general lack of capacity for, or reduced experiencing of, positive emotions. More specifically, when Study 3 participants described aspects of their day-to-day experience, they wrote extensively of social connections and interactions, of passions and enthusiasm and of warmth, friendly interactions and positive emotions. Rather than introverts

having inherently low levels of particular characteristics associated with scientific views of extraversion, these findings indicate that it is a matter of the nature and quality of experiences that may influence how sociable, gregarious, enthusiastic, or even assertive introverts may be.

The findings of this thesis also indicate that both lay conceptualisations of introversion and the experience of self-identified introverts can include reference to aspects that are missing from the current dominant scientific views of introversion. Such aspects evident in the current findings related to subjective experience. Both lay definitions and the psychosocial experiences described by self-identified introverts referred to a preference for reflection and taking things in, the importance of comfort and familiarity, the impact of magnitude or level of stimulation, and a need to manage energy or risk depletion. Such internal factors underlie behaviour commonly associated with introversion, but are not well captured in current scientific conceptualisations of extraversion-introversion such as those included in Smillie et al.'s table above.

In addition, identifying as part of introversion particular characteristics beyond those conforming to scientific definitions, is in keeping with the lay definition which Cain (2012) clearly articulated in her book (Smillie, 2015). The findings of the study reported here indicate that there are aspects of the introvert experience that are not well captured in scientific conceptualisations of introversion. Such aspects are likely to be related to the inner world and subjective experience that Jung (1921/1971) identified as key to introversion. Scientific approaches focussing on latent trait approaches (Boag, 2018) seem to have resulted in the loss of knowledge regarding less observable, internal components of this important personality trait. In addition, it is important to keep in mind that while the introversion-extraversion dimension is a key aspect of personality, other characteristics, such as agreeableness, will impact on the experience and functioning of a particular individual. As Little (2014) noted, discussions regarding personality must include consideration of aspects

of personality beyond introversion-extraversion exclusively. This should include acknowledgement and exploration of the effect that other aspects of personality on introverts' cognitive and emotional experience and psychosocial functioning.

Furthermore, it is also important to acknowledge that while the current program of research focussed specifically on conceptualisations and experiences of introversion, it is likely that some of themes generated here are representative not only of introversion, but also of aspects of general human experience and functioning. Future research should build on the current findings and explore what these may indicate about the shared human experience as well as what is more specific to introversion in relation to broader theories and knowledge of human development and psychosocial functioning.

A final aspect to be discussed here is the tendency to describe introversion negatively that was found in Study 1 as compared to Study 3 participants' descriptions of the introvert experience. While negative aspects were mentioned in the self-identified introverts' descriptions of their experiences, such negative valence was not a predominant feature across all responses or all domains of experience. For the most part, when these participants wrote negatively of their introverted characteristics, they were referring to the sense that other people misunderstood them or expected them to be different. Themes related to the disadvantages of being introverted were often related to managing the expectations and reactions of those around them.

CHAPTER 14: CONCLUSION

14.1 Overview of the Research Conducted

The purpose of this thesis was to investigate in broad terms the lay conceptualisation and lived experience of introversion given that very little of this has previously been explored in the scientific study of personality. The aim was to examine extant lay writings about introversion and to conduct a series of empirical investigations in order to consider the goodness of fit between scientific models of introversion and lay understandings and lived experience of introversion.

For this program of research, a mixed method approach was adopted, centring upon an online survey of participants who were recruited via email and social media using snowballing. The online survey comprised a participant information letter (Appendix B-2), demographic questionnaire (Appendix B-3) and a questionnaire eliciting qualitative written responses to open-ended questions regarding how participants describe introversion, whether they themselves were introverted or extraverted, and their experiences across 10 broad domains of psychosocial functioning (Appendix B-4). Data from this online survey formed the basis for the three studies in this research.

Study 1 (Chapter 4) was of a qualitative design and focussed on participants' conceptualisation of introversion. There were 87 participants (self-identified introverts, extraverts and ambiverts) who were asked to describe an introvert, including good and less good characteristics. Participants' responses were analysed using qualitative content analysis.

Study 2 (Chapter 5) was a quantitative study examining whether identifying as introverted, ambiverted, or extraverted influenced the categories of descriptors participants used when describing introversion in Study 1.

Finally, Study 3 (Chapters 7 – 12) was a broad qualitative exploration of the lived experience of introversion across key domains of psychosocial functioning. Thematic analysis was conducted on the written survey responses of 10 randomly selected participants (see Chapter 7 for further detail).

The combined findings of these three studies revealed that while there are some similarities between scientific definitions, lay conceptualisations and lived experience of introversion, there are also clear gaps between them. Most notably, lay definitions and the introvert lived experience reveal the importance of the inner experience and subjective motivations for meaningful understanding of introversion, while scientific emphasis on self-report of observable behaviour appears to overlook experiential factors central to the lay recognition and comprehension of introversion.

14.2 Conclusions Drawn from the Findings

The findings all three studies were considered in relation to the relevant lay and scientific literature. Subsequently the following conclusions were able to be drawn. Firstly, some aspects of lay conceptualisations reflect facets associated with characteristics of introversion in scientific models. In particular, enjoying spending time alone, being and seeking quiet, and being self-sufficient. As in scientific literature, lay participants also referred to introversion having possible implications for wellbeing. Furthermore, there were some themes that emerged from self-identified introverts' descriptions of lived experience which also aligned with scientific frameworks. These included disliking attention, enjoying quiet and time alone, self-reliance, and being strongly affected by stimulating environments.

On the other hand, there were factors included in lay descriptions of introversion in the present research, and in introverts' references to their own experiences, that have tended not to be clearly articulated in current scientific models of introversion. These factors tended to focus on the inner experience of introverts and reasons or motivations underlying introverts' behaviour. Such factors include the importance of comfort and familiarity, working to balance energy and to manage, or avoid, depletion or feeling overstimulated and overwhelmed. Furthermore, in both lay descriptions and introverts' own narrative, being misunderstood was recognised as a common experience for introverts. Counter to scientific conceptualisations (e.g.: Costa. & McCrae, 1992; Lee & Ashton, 2018), self-identified introverts in this study described being keenly aware of and interested in other people, and arranging their lives and managing their energy levels in order to be able to enjoy socialising, and doing so in a way that was optimal for them, i.e.: with smaller numbers of people with whom they could enjoy a sense of comfort and intimacy.

Another difference evident between scientific frameworks and the descriptions provided by the self-identified introverts in this research, was the theme related to enthusiasm and passion that emerged from the data. This seems to counter some scientific views, such as those of DeYoung et al. (2007) who include enthusiasm as a characteristic of extraversion. The self-identified introverts in this study often seemed to be motivated by passion and enthusiasm and such enthusiasm served to supersede their preference for less stimulation, busy-ness, or complexity and tended to contribute to increased interpersonal involvement and assertiveness in order to be involved in and contribute to activities or projects they were passionate about.

Finally, lay people in this study tended to include more negative descriptors than positive in their descriptions. Self-identified introverts in this research seemed to be aware of the tendency for introversion to be viewed negatively and made efforts to adjust their behaviour, including acting extraverted, to manage others' impressions and reactions. In spite of this awareness and adaptation, for the most part, self-identified introverts in this study did not refer to their own introversion negatively.

These conclusions can be seen to have direct implications, not only for future theory and research, but also for educational, organisational/industrial and, of course, clinical practice.

14.3 Implications of the Findings

14.3.1 Implications for Theory and Research

The findings of the current research indicate that while current scientific conceptualisations of introversion capture some aspects of introversion that accord with lay conceptualisations and in introverts' lived experience, some fundamental factors seem to be missed. These relate to introverts' inner world, with important implications for understanding motivations for and meaning of introverted behaviour. Therefore, it is suggested that future empirical studies aim to develop and test a more wholistic framework of introversion which includes subjective aspects of the introvert experience, and which relates to characteristics that are present for introverts, rather than continuing to focus on characteristics that are lacking.

One step towards revising the scientific view of introversion should be to thoroughly review existing frameworks of extraversion-introversion from the domain level through to the facet and nuanced level (see Smillie et al., 2018), and to consider how current models fit with

lay conceptualisations and experience of introversion. Gaps identified should be addressed, either within existing models, or through the development of new more comprehensive models of introversion.

Gaps in scientific conceptualisations of introversion also have implications for the assessment and measurement of introversion. It is recommended that future studies review existing measures in order to identify how effectively these capture lived experience of introversion, including intrapersonal and motivational aspects. Where gaps are identified, existing measures should be revised and updated if possible. Alternatively, a new approach to assessment of introversion could be developed which can effectively encompass the breadth and depth of the introvert experience and temperament.

Another avenue to be explored further in future research is that of physiological patterns in arousal and sensitivity to stimulation. Such investigation could encompass the day-to-day impact of managing intensity and stimulation, and the function of maintaining comfort and familiarity, as well as exploring how these relate to fatigue, depletion, anxiety and self-concept in people with higher introversion. Such research could contribute to increased understanding and acceptance of introversion and associated traits and behaviours.

14.3.2 Implications for Practice

This research, in revealing inconsistencies between lay conceptualisations, scientific definitions and the lived experience of introversion, highlighted a tendency for lay people to emphasise the negative aspects of introversion. Given these findings, it could be valuable for professionals in a range of settings, including clinical, educational, and organisational or industrial contexts, to create opportunities for increased learning and understanding of introversion. Improving knowledge of introversion may help to reduce occasions when

introvert behaviour may be misconstrued and viewed negatively. This could improve intrapersonal wellbeing and interpersonal functioning.

14.4 Conclusion

The research described in this thesis indicated central themes in lay conceptualisation and lived experience of introversion. These themes reveal gaps in existing scientific models of introversion, as well as indicating commonalities between current scientific frameworks and lay knowledge. Future research is required to address the bases of conceptualisations and to explore implications of the lay understanding and experience for the definition, assessment and actual measurement of introversion.

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APPENDICES

Appendix A – Ethics Approval

2014 275V Ethics application approved!
Kylie Pashley <Kylie.Pashley@acu.edu.au>
Sun 16/11/2014 16:06
To: Lisa Milne <Lisa.Milne@acu.edu.au>;Nanette Gerlach <nanette.gerlach@myacu.edu.au>
Cc: Res Ethics <Res.Ethics@acu.edu.au>

Dear Applicant,

Principal Investigator: Dr Lisa Milne
Co-Investigator: Dr David Hamilton
Student Researcher: Nanette Gerlach (HDR student)
Ethics Register Number: 2014 275V
Project Title: Is There More to Introversion than Sociability? Development and Validation of a New Introversion Measure.
Risk Level: Low Risk
Date Approved: 04/11/2014
Ethics Clearance End Date: 28/02/2015

This email is to advise that your application has been reviewed by the Australian Catholic University's Human Research Ethics Committee and confirmed as meeting the requirements of the National Statement on Ethical Conduct in Human Research.

This project has been awarded ethical clearance until 28/02/2015. In order to comply with the National Statement on Ethical Conduct in Human Research, progress reports are to be submitted on an annual basis. If an extension of time is required researchers must submit a progress report.

Whilst the data collection of your project has received ethical clearance, the decision and authority to commence may be dependent on factors beyond the remit of the ethics review process. The Chief Investigator is responsible for ensuring that appropriate permission letters are obtained, if relevant, and a copy forwarded to ACU HREC before any data collection can occur at the specified organisation. Failure to provide permission letters to ACU HREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research. Further, this approval is only valid as long as approved procedures are followed.

If you require a formal approval certificate, please respond via reply email and one will be issued.

Decisions related to low risk ethical review are subject to ratification at the next available Committee meeting. You will be contacted should the Committee raises any additional questions or concerns.

Researchers who fail to submit a progress report may have their ethical clearance revoked and/or the ethical clearances of other projects suspended. When your project has been completed please complete and submit a progress/final report form and advise us by email at your earliest convenience.

The information researchers provide on the security of records, compliance with approval consent procedures and documentation and responses to special conditions is reported to the NHMRC on an annual basis. In accordance with NHMRC the ACU HREC may undertake annual audits of any projects considered to be of more than low risk.

It is the Principal Investigators / Supervisors responsibility to ensure that:

1. All serious and unexpected adverse events should be reported to the HREC with 72 hours.
2. Any changes to the protocol must be approved by the HREC by submitting a Modification Form prior to the research commencing or continuing.
3. All research participants are to be provided with a Participant Information Letter and consent form, unless otherwise agreed by the Committee.

For progress and/or final reports, please complete and submit a Progress / Final Report form:
http://www.acu.edu.au/research/support_for_researchers/human_ethics/forms

For modifications to your project, please complete and submit a Modification form:
http://www.acu.edu.au/research/support_for_researchers/human_ethics/forms

Researchers must immediately report to HREC any matter that might affect the ethical acceptability of the protocol eg: changes to protocols or unforeseen circumstances or adverse effects on participants.

Please do not hesitate to contact the office if you have any queries.

Kind regards,
Kylie Pashley
on behalf of
ACU HREC Chair, Dr Nadia Crittenden
Ethics Officer | Research Services
Office of the Deputy Vice Chancellor (Research)
Australian Catholic University

THIS IS AN AUTOMATICALLY GENERATED RESEARCHMASTER EMAIL

Appendix B – Survey Materials

Appendix B – 1. Invitation to Participate

Are you interested in personality? Have you thought about what extraverts and introverts are like? If so, you are invited to participate in a research project by Nanette Gerlach, PhD student under the supervision of Dr Lisa Milne and Dr David Hamilton at Australian Catholic University (ACU). We are exploring similarities and differences in what it's like to be extraverted or introverted.

To complete the anonymous online survey go to https://acu.qualtrics.com/SE/?SID=SV_3f91FcbPirU65Ol, and read the Participants' Information Letter before clicking to start the survey. The online survey will take approximately 50 minutes to complete. All participants who complete the survey will be given the opportunity to enter into a raffle to win Susan Cain's book *Quiet*.

At the end of the survey you will be asked whether you'd like to volunteer to take part in a telephone interview. You can find out more at the end of the online survey.

Thank you for your interest in this project. The information we gain through this project could help improve how people think about and interact with introverts and extraverts. It could also help us create information and programs to help those who might struggle with social and emotional concerns.

Appendix B – 2. Online Survey – Participant Information Letter

Exploring Introversion and Extraversion

PARTICIPANT INFORMATION LETTER - Please read carefully.

PROJECT TITLE: An Exploration of Experiences of Introversion and Extraversion.
PRINCIPAL INVESTIGATOR: Dr Lisa Milne
CO-INVESTIGATOR: Dr David Hamilton
STUDENT RESEARCHER: Nanette Gerlach STUDENT RESEARCHER: Kristy Waters
STUDENT'S DEGREE: PhD (Nanette Gerlach), B Psych Sci (Honours) (Kristy Waters)

Dear Participant,

Thank you for your interest in this research. You are invited to participate in the research project described below.

What is the project about?
The research project investigates how people experience aspects of introversion and extraversion. It aims to increase our understanding of the personal experiences and preferences of people who have of characteristics linked to introversion. Understanding more about introverts and their interactions with extraverts could help improve how people think about and interact with introverts. It could also help us create information and programs to help those introverts who might struggle with social and emotional concerns.

Who is undertaking the project?
This project is being conducted by Nanette Gerlach and Kristy Waters. For Nanette Gerlach this project will form the basis for the degree of Doctor of Philosophy at Australian Catholic University under the supervision of Dr Lisa Milne and Dr David Hamilton. For Kristy Waters this project will be in partial fulfilment of a Bachelor of Psychological Science (Honours) degreee at Australian Catholic University under the supervision of Dr Lisa Milne.

Are there any risks associated with participating in this project?
Participation in this project is not expected to put you at risk. Even so, there is a possibility that some of the survey questions may ask you to remember or describe experiences that could be upsetting for you. If you find you become distressed as a result of participating in this project, please contact Lifeline on 13 11 14. Alternatively, please contact those you usually turn to for support.

What will I be asked to do?
If you decide to participate in this research project, you will be asked to complete an anonymous online survey which will include questions about you, an extraversion/introversion scale, a scale regarding symptoms linked to depression, anxiety and stress, questions about feelings and emotions as well as questions relating to sensations and reactions, as well as several open-ended questions about your experiences, reactions and preferences. The survey should take approximately 50 minutes to complete.

What are the benefits of the research project?
You may find it interesting and useful to reflect on your experiences and your thoughts, feelings,

actions and reactions and your reasons for these. This research project may assist in improving our understanding of what it's like to be an introvert or an extravert. Understanding more about introverts and extraverts and their interactions with each other could help improve how people think about and interact with introverts. It could also help us create information and programs to help those introverts who might struggle with social and emotional concerns.

After participating in the online survey, you will be able to enter a raffle to win Susan Cain's book "Quiet: the Power of Introverts in a World That Can't Stop Talking".

Can I withdraw from the study?

Participation in this study is completely voluntary. You are not under any obligation to participate. If you agree to participate, you can withdraw from the study at any time without adverse consequences prior to submitting the online survey. Once the online survey has been submitted your responses will not be identifiable and therefore cannot be removed from the study.

Will anyone else know the results of the project?

The results of the project will be included in the final research report (PhD thesis) which will be submitted as part of Nanette Gerlach's PhD requirements. The results from the study may also be summarised and appear in publications, in presentations or may be provided to other researchers in a form that does not identify the participants in any way. The results used in this way may include de-identified quotes which have been edited to protect participants' privacy.

Will I be able to find out the results of the project?

A summary of the results of the research will be made available to participants on request. To request the summary, please email the primary investigator, Dr Lisa Milne (Lisa.Milne@acu.edu.au) after the 31st of July, 2015.

Who do I contact if I have questions about the project?

If you have any questions about the research project please email Nanette Gerlach (nngerl001@myacu.edu.au), Kristy Waters (kbwate001@myacu.edu.au) or Dr Lisa Milne (Lisa.Milne@acu.edu.au).

What if I have a complaint or any concerns?

The study has been reviewed by the Human Research Ethics Committee at Australian Catholic University (review number 2014 275V). If you have any complaints or concerns about the conduct of the project, you may write to the Manager of the Human Research Ethics Committee care of the Office of the Deputy Vice Chancellor (Research).

Manager, Ethics c/o Office of the Deputy Vice Chancellor (Research) Australian Catholic University North Sydney Campus PO Box 968 NORTH SYDNEY, NSW 2059	Ph.: 02 9739 2519 Fax: 02 9739 2870 Email: res.ethics@acu.edu.au

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

I want to participate! How do I sign up?

If you would like to participate, please read the consent statement below and click the following

bubble to agree. Then click the arrows to continue on to the survey. Thank you!

Yours sincerely,
Dr Lisa Milne and **Dr David Hamilton** and **Nanette Gerlach** and **Kristy Waters**

Statement of Consent:

By clicking on the bubble below I agree that I have read and understood the information provided above in the Letter to Participants. I am satisfied that I understand the information that has been provided. I agree to participate in this 50 minute (approx.) anonymous online survey, realising that I can withdraw my consent/ stop the survey at any time prior to submitting the survey without adverse consequences. I agree that research data collected for the study may be published, presented at conferences or may be provided to other researchers in a form that does not identify me in any way. I realise that by completing and submitting this survey I am giving consent.

000 Please click on the bubble below to indicate you have read Participant Information Letter and agree with the above statement of consent.

○ I have read and agree with the Statement of Consent. (1)

Appendix B – 3. Online Survey – Demographic Questionnaire

Demographics

A Section A: BACKGROUND INFORMATION

Q1 How old are you?

Q2 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Other (3) _____

Q3 What country were you born in?

_____

Q4 Where do you currently live? Please include the suburb, city, state/province and country where you live.

_____

Q5 What is the highest level of education/training you have completed?

- ○ Primary school (1)
- ○ High school (2)

- ○ Trade apprenticeship (3)
- ○ Technical Diploma (4)
- ○ University Undergraduate Degree (5)
- ○ Postgraduate Diploma (6)
- ○ Masters Degree (7)
- ○ PhD (8)
- ○ Other (9) _____

Q6 What is the highest level of education/training ***either of your parents*** completed?

- ○ Primary school (yrs 1 -6) (1)
- ○ High school (yrs 7 -10) (2)
- ○ High School (yrs 11- 12) (3)
- ○ Trade / apprenticeship (4)
- ○ Technical Diploma / Certificate (5)
- ○ University Undergraduate Degree (6)
- ○ Postgraduate Diploma (7)
- ○ Masters Degree (8)
- ○ PhD (9)
- ○ Other (10) _____

Q7 What is your relationship status?

- ○ Single (1)
- ○ In a committed, long term relationship, not living together (2)
- ○ In a committed, long term relationship, living together (3)
- ○ Separated (4)
- ○ Divorced (5)
- ○ Widowed (6)
- ○ Other (7) _____

Appendix B – 4. Online Survey – Qualitative Questionnaire: Conceptualisation and Experience of Introversion

Qualitative Questions.

Section D: ABOUT YOUR EXPERIENCES.

Please answer the following questions based on your own opinions, thoughts and experiences. Write as much as you need to so that you answer the question as fully as possible.

Q1 How would you describe an introvert? What's good about introverts? What's not so good?

Q2 Are you an introvert or an extravert? What are the challenges of being that way (introverted or extraverted)? What are the advantages?

Q3 Do you ever act as if you were the opposite? Why/when? What is it like for you when you do?

Q4 In the family you grew up in, were people more introverted or extraverted? What was that like for you?

Q5 Please write a little bit about what school was like for you. Describe a bit about the others in your classes and about friends and getting along with others.
What did you like about school? What did you find difficult?
Do you think your being introverted or extraverted made a difference to your experiences? In what way?

Q6 Do you work or study? If so what do you do?

How did you come to have that kind of job/course?

What do you like about your job/course? What don't you like?

What impact do you think being introverted/extraverted has on your work/study?

Q7 What do you like to do for fun? How do you decide what to do when you have free time?

Q8 What do you do when you are alone? How often do you spend time alone? When and why do you choose to be alone?

What effect does spending time alone have on you?

Q9 How do you socialise? How often do you to socialise? When and why do you choose to be with other people?

What effect does spending time with other people have on you?

Q10 Please describe your ideal romantic relationship.

What are the best things about a romantic relationship? What are the difficult things about a romantic relationship?

What are romantic relationships like for you?

Q11 Describe an example of a very tiring day for you. What kind of things would you be doing? Who would be involved? Where would you be?

If you've had a day like that, how would you recharge?

Appendix C – Samples of Qualitative Data Analysis Process

The documents included in Appendices C-1 and C-2 include the first pages of each iteration of the qualitative analyses for Study 1 (C-1) and Study 2 (C-2)

Appendix C – 1. Study 1: Samples from Thematic Content Analysis Conducted

Study 1 Thematic Content Analysis: First Iteration

Introvert Descriptors Count (sample of 24 of the initial 48 Themes, 14 of 87 participants)

Themes	Response #	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Observe / Listen (Take In)		X	X			X				X					X
2. Nervous / Tense															
3. Thinkers		X		X	X			X		X	X		X	X	X
4. Reserved / private /hard to get to know			X								X	X			X
5. Selective															
6. Considered / Deliberate				X				X			X			X	
7. Slow warmers /Different with people they know /like or 1 on 1		X													
8. Independent / Self Sufficient									X						
9. Comfortable with/prefers quiet / low stimulation				X				X		X			X		
10.	Are quiet	X	X		X		X			X		X			X
11.	Are calm			X							X				
12.	Gain energy alone/ lose energy with people					X		X	X	X	X		X		
13.	Need / enjoy alone time / own company			X				X	X	X			x		
14.	Uncomfortable in Crowds/ groups	X								X					
15.	Happy in the background					X									
16.	Overlooked		X												
17.	Excluded														
18.	Lonely / isolated / few friends														
19.	Boring / dull /no fun						X				X				
20.	Odd / socially awkward														
21.	Rude / hurtful														
22.	Difficult for others (check)														X
23.	Hard to socialise with														
24.	Unsociable								X						

Study 1 Thematic Content Analysis: Second Iteration – theme reduction

Quiet in groups

Take in (more than put out)

Overwhelmed by /anxiety in group/crowd

Exhausted by group/crowd

Thinkers

Good convo w/ familiar people

Distant to those they don't know expose personal details only to those they have become very close to

Observes

Good listener Enjoy listening

May be overlooked

Hard to get to know /take longer to get to know on a deeper level

Comfortable in /Enjoys their own company / like to be alone

Does not need outside stimulation all the time

Likes peace and quiet / enjoy spending time in quiet environment

Calm, peaceful / calming influence/ relaxed/ keep their cool

Considered (think about what they say /do), deliberate

Not impulsive

Study 1 Thematic Content Analysis: Third Iteration

Introversion Descriptor Theme Tracking Table

Theme													
1. Quiet in groups	llll												
2. Take in (more than put out)													
3. Overwhelmed by */anxiety in* group/crowd	ll												
4. Exhausted by group/crowd	l												
5. Thinkers	ll												
6. Good convo w/ familiar people													
7. Distant to those they don't know *expose personal details only to those they have become very close to*	l												
8. Observes	lll												
9. Good listener *Enjoy listening*	lllll	ll											
10. May be overlooked													
11. Hard to get to know */take longer to get to know on a deeper level*	lllll	lll											
*12. Comfortable in /*Enjoys their own company */ like to be alone*	lllll	lllll	lllll	lllll	lll								

Study 1 Thematic Content Analysis: Fourth Iteration

Introversion descriptors grouped further:

GainLoseEnergy

Quiet:
- AreQuiet
- AreCalm- peaceful
- PrefQuLowStim

?Boring
?PreferSmallGrp

Attentive:
- TakeIn
- DeepGoodFriend
- KindEmpathic

Misunderstood

Reserved:
- Reserved
- SlowWarmer
- DistantDistrustful
- NotForthcoming
- Hard to know

Inflexible
- DislikeChange
- NotOpentoexp

Self-sufficient:
- IndepSelfSuff
- NeedLikeOwnTime
- Unsociable
- InwardOBottlesUp

Don't fit any other group and have low endorsement:

MissOut
CanBeGregarious

Possibly could have a category about having psychological difficulties…

Reflective:
- Thinkers
- ConsidDelib
- SlowtoDecideAct
- *?Overthink*

Have valuable skills
- InsightfulCreative
- WorkStudySkills

Unassuming:
- HappyBackground
- Not pushy

Socially less adept:
- UncomfNervous
- UncomfWNewPeople
- Shy
- UncomfInCrowd
- HardToCommWith
- LonelyIsolated

OddSocAwkward
HardToSocWith
DifForOthers
RudeHurtfu

Study 1 Thematic Content Analysis: Fifth Iteration

Possible Themes to count for Frequency:

IDsAs

Quiet

GainEnergyAlone

*Attentive**

Reserved

SelfSufficient

Reflective

HaveValuableSkills

Unassuming

*SociallyLessAdept**

Misunderstood

NegativeAffect

MissOut

SlowDecidAdaptAct

~~*InterPersBeh*~~

~~IntraPersWhy~~

OutcomeOfBeh

IntrovBeh

ReasonForBeh

Frequency

**social implications*

Study 1 Thematic Content Analysis: Sixth Iteration

Sample of theme counting in SPSS:

Part #	Introv BEH	Quiet	Time Alone	Interpers Beh	Reflect-ive	Take In	OUT-COME	EdVoc Skills	ImpactOn SocialLife
1	1	0	1	1	0	0	0	0	0
2	1	1	1	1	1	1	1	1	0
3	1	0	1	1	1	0	1	1	1
4	1	0	1	1	1	0	1	0	0
5	1	0	0	1	1	0	1	0	0
6	1	0	1	0	1	0	1	0	1
7	1	0	1	1	1	0	1	0	1
8	1	1	1	1	1	0	1	0	0
9	1	1	1	1	0	0	1	0	0
10	1	0	0	1	1	0	1	0	0
11	1	1	1	0	0	0	1	0	1
12	1	0	1	1	1	0	1	1	1
13	1	0	1	1	0	0	1	0	1
14	1	1	0	1	1	1	1	0	1
15	1	0	1	0	0	0	1	0	1
16	1	0	0	1	0	0	1	0	1
17	1	0	0	1	0	1	1	0	1
18	1	0	1	1	0	0	1	1	1
19	1	0	1	0	0	0	1	0	0
20	1	1	1	0	1	1	1	0	1
21	1	0	1	1	0	0	1	0	0
22	1	1	1	1	0	0	1	0	0
23	1	0	1	1	0	0	1	0	1
24	1	0	0	1	0	0	1	0	1
25	1	0	0	0	0	1	1	0	1
26	1	0	1	1	1	0	1	0	1
27	1	1	0	1	0	0	1	0	1
28	1	0	1	1	0	0	1	0	1

Appendix C – 2. Study 3 Selected Samples of Matrices used in Thematic Analysis using Miles, Saldana & Huberman Method

Study 3 Thematic Analysis: Punctuating the Data – identifying and recording units of data.

S3 Lived Experience Thematic Data Analysis – Verbatim Matrix Table 1 Socialising P2 & P3.

How do you socialise? How often do you to socialise? When and why do you choose to be with other people? What effect does spending time with other people have on you?		
I like to play music with people	**P2**,	
In small groups	**P2**,	
I socialise 5-7 days a week outside of my work and studies (!)	**P2**,	
usually after church commitments	**P2**,	
I choose to spend time with people whose company i enjoy	**P2**,	
*(I choose to spend time with people) […] who don't tire me out.	**P2**,	Tiring depends on who one socialises with
It can be tiring if I do it a lot without any gaps	**P2**,	Socialising can be tiring Trade off – enjoy it but tiring
*but I normally have a few hours each night to myself so it doesn't tire me out much.	**P2**,	Balance alone time and socialising avoids tiring out
I like to socialise in a relaxed atmosphere	**P3**,	Importance of atmosphere *(P2 too re: work/staff)*
with a small group of people	**P3**,	Socialise with small group
such as going out for meals or drinks	**P3**,	
or relaxing at home with friends and family	**P3**,	
*I mostly spend time with a few close friends and family	**P3**,	Socialise with those close to - selective
and don't often extend beyond this	**P3**,	
except for particular occasions.	**P3**,	Can adapt to occasion
It depends which people I spend time with as to what effect it has on me.	**P3**,	Different with different people (level of familiarity/intimacy)
*New people and people I don't know that well tend to be a bit more energy draining	**P3**,	Less familiar people drain energy
*but people I have known a long time or family tend to make me feel more relaxed and happy	**P3**,	Positive affect with close friend/family *(P1 and P2 too)*

Study 3 Thematic Analysis: First Condensation Cycle

S3 Lived Experience Thematic Data Analysis –Identification of Units of Data

Themes initially evident in responses to:
How do you socialise? How often do you to socialise? When and why do you choose to be with other people? What effect does spending time with other people have on you?

	SUB-DOMAINS OF ENQ.:	Ps with theme in this section	Ps with theme in other section
Emergent Themes ↓	**Setting / mode**		
	Social media - to organise to get together	**1*,**	Descriptive Method & purpose
	At home	**1,** 3, 10	Context
	Out	**1,** 7, 10	Context
	Small group	**2***, 3*, 9, 10	Context Magnitude
	In a relaxed atmosphere	3*	Context Evaluative +Emotion
	One on one	**4*,** 5*, 9*, 10	Context Magnitude
	Short session	4, 10	Magnitude
	Purpose / activity		
Emergent Themes ↓	Avoid/relieve boredom	**1***	Emotion (avoid -ve)
	Want to see people / enjoy being with others	**1, 7**	+Emotions
	Want do have fun	**1***	+Emotions
	Play music together	**2**	Process
	Out for meal or drinks	**7,** 10	Process
	For coffee or lunch (my comment: this limits time)	4	Process
	Hearing about their activities and thoughts	7*	Process
	Meaningful conversations	9*	Process Evaluative

Study 3 Thematic Analysis: Second Condensation Cycle

S3 Lived Experience Thematic Data Analysis – Emergent Themes in Sub-domains of Enquiry

Themes evident in responses to:
How do you socialise? How often do you to socialise? When and why do you choose to be with other people? What effect does spending time with other people have on you?

	SUB-DOMAINS OF ENQ.:	Ps with this theme	Ps with theme in other section	**HIGHER ORDER THEMES**
Emergent Themes ↓	**How: Setting / mode I** *Include in section preamble? Not so much themes…?*			
	Social media - to organise to get together	**1*,**	Descriptive Method & purpose	
	At home	**1,** 3, 10	Context	**Comfortable setting**
	Out	**1,** 7, 10	Context	**Out**
	Small group	**2***, 3*, 9, 10	Context Magnitude	**Small numbers**
	In a relaxed atmosphere	3*	Context Evaluative +Emotion	**Comfortable setting**
	One on one	**4*,** 5*, 9*, 10	Context Magnitude	**Small numbers**
	Short session	4, 10	Magnitude	**Limited time**
	How: With whom			
Emergent Themes	Friends,	**1**, 10	In vivo	**Closeness**
	A few close friends	**3***	Evaluative Magnitude	**Closeness**
	People whose company I enjoy	**2**	In vivo Evaluative	**Commonality**
	People who don't tire me out	**2*,**	In vivo Evaluative	**Closeness, Commonality**
	Family	**3*,** 10	In vivo	**Closeness**
	Occasionally extend beyond close friends and family	**3***	In vivo magnitude	**Commonality?**
	One person	**4, 10**	In vivo	**Closeness, Intimacy**

Study 3 Thematic Analysis: Third Condensation Cycle

Combination of emergent themes into Higher Order themes.

How do you socialise? How often do you to socialise? When and why do you choose to be with other people? What effect does spending time with other people have on you?

	SUB-DOMAINS OF ENQ.:	Endorsed by Percent	**Participants with this theme**	**Indicative quotes**
	SETTING			
Higher order themes	- **Comfortable setting**	30%	1, 3*, 10	- Socialise via social media to organise to meet up with friends (P1) - I like to socialise in a relaxed atmosphere with a small group of people such as going out for meals or drinks or relaxing at home with friends and family. (P3)
	- **Keeping it small** *(numbers and time)*	60%	2*, 3*, 4*, 5*, 9*, 10*	- I usually socialise by meeting up with a single person for coffee or lunch. (P4) - Enjoy short socialisation sessions such as a cocktail party for an hour where I can catch up with a few people then go home, rather than long inners. (P10)
	- **Out**	30%	1, 6, 7, 10	- I do a fair bit of community work. (P6) - Socialise over dinner / drinks / gatherings: going out. (P7)
	WITH WHOM			
	- **Closeness / Intimacy**	80%	1, 2, 3*, 4, 5*, 6, 9*, 10	- With my partner, with my sisters at family gatherings, with close friends. (P9)
	- **Commonality**			- I like to play music with people or hang out in small groups. […] I choose to spend time with people whose company I enjoy and who don't tire me out. (P2)
	WHEN *In write up include this in preamble to this questions findings?*			
	- **Daily**	20% (40% of those who mentioned timing)	2, 5	
	- **Weekly to fortnightly**	20% (40% of those who mentioned timing)	7, 9*	
	- **Rarely**	10% (20% of those who mentioned timing)	8	

Study 3 Thematic Analysis: Fourth Condensation Cycle – combination and counting of Higher Order Themes

Domain 6: SOCIALISING

SUB-DOMAINS:	%	Participants with this theme	Indicative quotes
FREQUENCY	50%	2, 5, 7, 8, 9*	- Most days: 2, 5 - Weekly to fortnightly: 7, 9* - Rarely: 8
CONTEXT OF SOCIALISING			
Comfortable setting	30%	1, 3*, 10	- Socialise via social media to organise to meet up with friends (P1) - I like to socialise in a relaxed atmosphere with a small group of people such as going out for meals or drinks or relaxing at home with friends and family. (P3)
Keeping it small *(numbers and time)*	80%	1, 2*, 3*, 4, 5*, 6, 9*, 10	- I usually socialise by meeting up with a single person for coffee or lunch. (P4) - Enjoy short socialisation sessions such as a cocktail party for an hour where I can catch up with a few people then go home, rather than long inners. (P10)
Closeness / Intimacy	80%	1, 2, 3*, 4, 5*, 6, 9*, 10	- With my partner, with my sisters at family gatherings, with close friends. (P9)
Out	40%	1, 6, 7, 10	- I do a fair bit of community work. (P6) - Socialise over dinner / drinks / gatherings: going out. (P7)
REASON FOR SOCIALISING			
Desire to socialise,	30%	1*, 7, 9*	- I chose to be with other people out of boredom (P1) - I find I need a 'dose' of socialising every now and then. (P9)
Enjoyment	20%	1*, 7	- I choose to be with other people out of boredom and wanting to catch up and have a good time (P1)
Commonality	30%	2*, 5*, 6, 7*, 10	- I like to play music with people or hang out in small groups. […] I choose to spend time with people whose company I enjoy and who don't tire me out. (P2) - Socialise over dinner / drinks / gatherings (P7)
Conversation	30%	4, 7*, 9*	- I enjoy being with others and hearing / what they are doing thinking etc. (P7) - I prefer to be one on one or in small group where everyone talks in one conversation. I like conversations that are meaningful or that play with words. (P9)

NB: The sixth step in the data analysis – finalisation of Higher Order Themes resulted in the themes and tables presented in Chapters 8 – 11.

Study 3 Thematic Analysis: Sixth Condensation Cycle – Identification and display of cross Domain Superordinate themes

Superordinate Themes Recurring across Multiple Domains – extract from table used for initial identification and count

SUPERORDINATE THEMES Domain X=included	1	2	3	4	5	6	7	8	9	10
IMPORTANCE OF COMFORT AND FAMILIARITY	*x*	*x*	*x*	*x*	*x*		*x*	*x*	*x*	*x*
• E. when comfortable (natural)	6							x		
• E with familiar people / in familiar setting (natural)		x						x		
• Novelty – more I (not comfortable or familiar)	3		x							
Alone = Ease – CHECK ALL (natural?)	?	?	?	?	5					
Social choose Comfortable setting	x			x	x			3		
Comfort and familiarity to recover from tiring day	x						x	4		
NATURAL	*x*	*x*	*x*	*x*	*x*		*x*			
I = Natural Disposition /I beh = natural	1	?	x	?	x		x			
• Acting E = Fake/unnatural	4		x?		x					
Contributed to Introversion (Family , school context contributed to Introversion)	x			1						
PREFER FOR SMALL NUMBERS / dislike LARGE groups	*x*		*x*	*x*	*x*	*x*		*x*		
• E with small numbers of people (natural)	?		x					x		
• Conditional–Acting E ok in small group	1									
Attitude towards groups at School	x			3						
• Preferred working style -small group	x			x	2					
• Dislike groups	?			x	3					
Social context = Keeping it small	x			x	x	x?		8		

NB: The table displaying the final findings for analysis of Superordinate themes recurring across multiple domains is presented in Chapter 12 above.

Appendix D. Study 2 Quantitative Data Analysis

Appendix D-1: Chi-square Tests of Influence of Self-Identified Introversion/Ambiversion/Extraversion on Conceptualisations of Introversion

IDsAs * IntrovBEH

Crosstab

			IntrovBEH		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	0	42	42
		Expected Count	1.0	41.0	42.0
	ambivert	Count	0	25	25
		Expected Count	.6	24.4	25.0
	extravert	Count	2	18	20
		Expected Count	.5	19.5	20.0
Total		Count	2	85	87
		Expected Count	2.0	85.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.858[a]	2	.032
Likelihood Ratio	6.041	2	.049
Linear-by-Linear Association	4.896	1	.027
N of Valid Cases	87		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .46.

Continued on next page.

IDsAs * Quiet

Crosstab

			Quiet		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	28	14	42
		Expected Count	22.2	19.8	42.0
	ambivert	Count	13	12	25
		Expected Count	13.2	11.8	25.0
	extravert	Count	5	15	20
		Expected Count	10.6	9.4	20.0
Total		Count	46	41	87
		Expected Count	46.0	41.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.451[a]	2	.009
Likelihood Ratio	9.742	2	.008
Linear-by-Linear Association	9.084	1	.003
N of Valid Cases	87		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.43.

Continued on next page.

IDsAs * TimeAlone

Crosstab

			TimeAlone		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	12	30	42
		Expected Count	18.3	23.7	42.0
	ambivert	Count	11	14	25
		Expected Count	10.9	14.1	25.0
	extravert	Count	15	5	20
		Expected Count	8.7	11.3	20.0
Total		Count	38	49	87
		Expected Count	38.0	49.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.873[a]	2	.003
Likelihood Ratio	12.169	2	.002
Linear-by-Linear Association	11.320	1	<.001
N of Valid Cases	87		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.74.

Continued on next page.

IDsAs * InterpersBeh

Crosstab

			InterpersBeh		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	10	32	42
		Expected Count	11.6	30.4	42.0
	ambivert	Count	6	19	25
		Expected Count	6.9	18.1	25.0
	extravert	Count	8	12	20
		Expected Count	5.5	14.5	20.0
Total		Count	24	63	87
		Expected Count	24.0	63.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.004[a]	2	.367
Likelihood Ratio	1.907	2	.385
Linear-by-Linear Association	1.452	1	.228
N of Valid Cases	87		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.52.

Continued on next page.

IDsAs * Reflective

Crosstab

			Reflective		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	26	16	42
		Expected Count	26.6	15.4	42.0
	ambivert	Count	15	10	25
		Expected Count	15.8	9.2	25.0
	extravert	Count	14	6	20
		Expected Count	12.6	7.4	20.0
Total		Count	55	32	87
		Expected Count	55.0	32.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.538[a]	2	.764
Likelihood Ratio	.549	2	.760
Linear-by-Linear Association	.274	1	.601
N of Valid Cases	87		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.36.

Continued on next page.

IDsAs * TakeIn

Crosstab

			TakeIn		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	33	9	42
		Expected Count	33.8	8.2	42.0
	ambivert	Count	21	4	25
		Expected Count	20.1	4.9	25.0
	extravert	Count	16	4	20
		Expected Count	16.1	3.9	20.0
Total		Count	70	17	87
		Expected Count	70.0	17.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.297[a]	2	.862
Likelihood Ratio	.305	2	.859
Linear-by-Linear Association	.055	1	.815
N of Valid Cases	87		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.91.

Continued on next page.

IDsAs * OUTCOME

Crosstab

			OUTCOME		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	2	40	42
		Expected Count	3.4	38.6	42.0
	ambivert	Count	3	22	25
		Expected Count	2.0	23.0	25.0
	extravert	Count	2	18	20
		Expected Count	1.6	18.4	20.0
Total		Count	7	80	87
		Expected Count	7.0	80.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.244[a]	2	.537
Likelihood Ratio	1.270	2	.530
Linear-by-Linear Association	.742	1	.389
N of Valid Cases	87		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.61.

Continued on next page.

IDsAs * EdVocSkills

Crosstab

			EdVocSkills		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	36	6	42
		Expected Count	35.7	6.3	42.0
	ambivert	Count	21	4	25
		Expected Count	21.3	3.7	25.0
	extravert	Count	17	3	20
		Expected Count	17.0	3.0	20.0
Total		Count	74	13	87
		Expected Count	74.0	13.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.036[a]	2	.982
Likelihood Ratio	.036	2	.982
Linear-by-Linear Association	.011	1	.915
N of Valid Cases	87		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.99.

Continued on next page.

IDsAs * ImpactOnSocialLife

Crosstab

			ImpactOnSocialLife		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	13	29	42
		Expected Count	12.1	29.9	42.0
	ambivert	Count	7	18	25
		Expected Count	7.2	17.8	25.0
	extravert	Count	5	15	20
		Expected Count	5.7	14.3	20.0
Total		Count	25	62	87
		Expected Count	25.0	62.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.244[a]	2	.885
Likelihood Ratio	.246	2	.884
Linear-by-Linear Association	.241	1	.624
N of Valid Cases	87		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.75.

Continued on next page.

IDsAs * EmotionsWellBeing

Crosstab

			EmotionsWellBeing		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	23	19	42
		Expected Count	25.1	16.9	42.0
	ambivert	Count	16	9	25
		Expected Count	14.9	10.1	25.0
	extravert	Count	13	7	20
		Expected Count	12.0	8.0	20.0
Total		Count	52	35	87
		Expected Count	52.0	35.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.852[a]	2	.653
Likelihood Ratio	.853	2	.653
Linear-by-Linear Association	.723	1	.395
N of Valid Cases	87		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.05.

Continued on next page.

IDsAs * Misunderstood

Crosstab

			Misunderstood		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	36	6	42
		Expected Count	34.8	7.2	42.0
	ambivert	Count	21	4	25
		Expected Count	20.7	4.3	25.0
	extravert	Count	15	5	20
		Expected Count	16.6	3.4	20.0
Total		Count	72	15	87
		Expected Count	72.0	15.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.128[a]	2	.569
Likelihood Ratio	1.060	2	.589
Linear-by-Linear Association	.958	1	.328
N of Valid Cases	87		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.45.

Continued on next page.

IDsAs * MissOut

Crosstab

			MissOut		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	37	5	42
		Expected Count	36.7	5.3	42.0
	ambivert	Count	22	3	25
		Expected Count	21.8	3.2	25.0
	extravert	Count	17	3	20
		Expected Count	17.5	2.5	20.0
Total		Count	76	11	87
		Expected Count	76.0	11.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.131[a]	2	.937
Likelihood Ratio	.126	2	.939
Linear-by-Linear Association	.097	1	.756
N of Valid Cases	87		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.53.

Continued on next page.

IDsAs * REASONforBeh

Crosstab

			REASONforBeh		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	12	30	42
		Expected Count	10.1	31.9	42.0
	ambivert	Count	4	21	25
		Expected Count	6.0	19.0	25.0
	extravert	Count	5	15	20
		Expected Count	4.8	15.2	20.0
Total		Count	21	66	87
		Expected Count	21.0	66.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.363[a]	2	.506
Likelihood Ratio	1.432	2	.489
Linear-by-Linear Association	.273	1	.601
N of Valid Cases	87		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.83.

Continued on next page.

IDsAs * Shy

Crosstab

			Shy		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	35	7	42
		Expected Count	31.4	10.6	42.0
	ambivert	Count	19	6	25
		Expected Count	18.7	6.3	25.0
	extravert	Count	11	9	20
		Expected Count	14.9	5.1	20.0
Total		Count	65	22	87
		Expected Count	65.0	22.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.788[a]	2	.055
Likelihood Ratio	5.465	2	.065
Linear-by-Linear Association	5.303	1	.021
N of Valid Cases	87		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.06.

Continued on next page.

IDsAs * PreferenceComfort

Crosstab

			PreferenceComfort		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	19	23	42
		Expected Count	17.4	24.6	42.0
	ambivert	Count	6	19	25
		Expected Count	10.3	14.7	25.0
	extravert	Count	11	9	20
		Expected Count	8.3	11.7	20.0
Total		Count	36	51	87
		Expected Count	36.0	51.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.900[a]	2	.086
Likelihood Ratio	5.086	2	.079
Linear-by-Linear Association	.088	1	.767
N of Valid Cases	87		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.28.

Continued on next page.

IDsAs * EnergyCapacity

Crosstab

			EnergyCapacity		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	25	17	42
		Expected Count	26.1	15.9	42.0
	ambivert	Count	16	9	25
		Expected Count	15.5	9.5	25.0
	extravert	Count	13	7	20
		Expected Count	12.4	7.6	20.0
Total		Count	54	33	87
		Expected Count	54.0	33.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.228[a]	2	.892
Likelihood Ratio	.228	2	.892
Linear-by-Linear Association	.204	1	.652
N of Valid Cases	87		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.59.

Continued on next page.

IDsAs * SelfSufficient

Crosstab

			SelfSufficient		
			not endorsed	endorsed	Total
IDsAs	introvert	Count	34	8	42
		Expected Count	33.8	8.2	42.0
	ambivert	Count	20	5	25
		Expected Count	20.1	4.9	25.0
	extravert	Count	16	4	20
		Expected Count	16.1	3.9	20.0
Total		Count	70	17	87
		Expected Count	70.0	17.0	87.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.013[a]	2	.994
Likelihood Ratio	.013	2	.994
Linear-by-Linear Association	.010	1	.921
N of Valid Cases	87		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.91.

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Appendix D-2: ANOVA Testing Association between Self-identified Introversion/Ambiversion/Extraversion on Negative and Positive Valence of Descriptors.

Descriptives

Negative

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
introvert	42	1.7381	1.23089	.18993	1.3545	2.1217	.00	6.00
ambivert	25	2.1200	1.20139	.24028	1.6241	2.6159	.00	5.00
extravert	20	2.1500	1.34849	.30153	1.5189	2.7811	1.00	6.00
Total	87	1.9425	1.25157	.13418	1.6758	2.2093	.00	6.00

Descriptives

Positive

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
introvert	42	2.6190	1.78000	.27466	2.0644	3.1737	.00	9.00
ambivert	25	2.4400	1.63503	.32701	1.7651	3.1149	1.00	6.00
extravert	20	2.0500	1.09904	.24575	1.5356	2.5644	1.00	5.00
Total	87	2.4368	1.60451	.17202	2.0948	2.7787	.00	9.00

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ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Negative	Between Groups	3.404	2	1.702	1.089	.341
	Within Groups	131.309	84	1.563		
	Total	134.713	86			
Positive	Between Groups	4.388	2	2.194	.849	.431
	Within Groups	217.015	84	2.584		
	Total	221.402	86			

ANOVA Effect Sizes[a,b]

			95% Confidence Interval	
		Point Estimate	Lower	Upper
Negative	Eta-squared	.025	.000	.106
	Epsilon-squared	.002	-.024	.085
	Omega-squared Fixed-effect	.002	-.024	.084
	Omega-squared Random-effect	.001	-.012	.044
Positive	Eta-squared	.020	.000	.094
	Epsilon-squared	-.004	-.024	.073
	Omega-squared Fixed-effect	-.003	-.024	.072
	Omega-squared Random-effect	-.002	-.012	.037

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.