

Early Maladaptive Schemas and Cognitive Distortions
in
Psychopathy and Narcissism

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**I hereby certify that the work embodied in this thesis is the result of original
research and contains acknowledgment of all non-original work**

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ABSTRACT

Personality disorders have traditionally been considered refractory to psychological interventions. Two of the most common, and potentially harmful personality disorders are antisocial personality disorder / psychopathy, and narcissism. Although a great deal of conceptual overlap exists between psychopathy and narcissism, the empirical study of these constructs has proceeded largely independently of one another. Further complicating the discrimination of these constructs is the identification of the bifactorial nature of psychopathy - conceptualised as primary and secondary psychopathy - as well as the identification of two distinct forms of narcissism, overt and covert. The recent resurgence of interest in the sub-clinical manifestations of these two constructs has led to the development of a number of easily administered instruments to measure each of the psychopathy and narcissism constructs, as dimensional traits, within normal populations. This has provided empirically validated and reliable instruments to further explicate these two overlapping constructs. The first of the two studies reported sought to discriminate between psychopathy and narcissism through the recharacterisation of these constructs in terms of the early maladaptive schemas outlined in Young's early maladaptive schema theory (Young, 1999). Two hundred and ninety one participants completed questionnaires measuring primary and secondary psychopathy, overt and covert narcissism, and early maladaptive schemas. Findings are consistent with the hypothesis that psychopathy and narcissism are discriminable in cognitive-interpersonal terms, as operationalised by early maladaptive schemas. Findings also call into question the earlier observed hierarchical structure of the Young Schema Questionnaire. The current analysis identified a two-factor structure to the schema questionnaire, rather than the previously stated 5-factors. Having demonstrated the usefulness of understanding

psychopathy and narcissism in cognitive-interpersonal terms, the second study sought to further clarify the association between psychopathy and narcissism through the reconceptualisation of these constructs in cognitive terms, through the identification of the cognitive distortions operative in each disorder. One hundred and thirty two participants completed a cognitive distortions questionnaire developed by the author, along with the same measures of primary and secondary psychopathy, and overt and covert narcissism, as those administered in study 1. Findings were interpreted as providing support for the notion of psychopathy representing a sub-category of narcissism. Findings also provide further supportive evidence for the validity of the primary / secondary psychopathy, and overt / covert narcissism distinctions. The further clarification of the factor structure of the Young Schema Questionnaire, and the replication of the reliability and construct validity of the measure of cognitive distortions developed for this research are highlighted as areas for future research.

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CHAPTER 1

Psychopathy and Narcissism

1.1 PERSONALITY DISORDERS

Personality disorders, as defined by the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV, American Psychiatric Association, APA, 1994), are enduring patterns of inner experience and behaviour that deviate markedly from the expectations of the individual's culture, are pervasive and inflexible, have an onset in adolescence or early adulthood, are stable over time, and lead to distress or impairment in an individual. Personality disorders are defined by personality *traits*, which are "...enduring patterns of perceiving, relating to, and thinking about the environment and oneself that are exhibited in a wide range of social and personal contexts" (APA, 1994, p. 648). The DSM goes on to state that only when personality traits are observed to be "inflexible and maladaptive" and cause either "significant functional impairment or subjective distress" do they constitute a personality disorder (APA, 1994, p.648).

The symptoms of personality disorders may vary from individual to individual, but generally manifest themselves in two or more of the following four areas; *cognition* (how an individual perceives and interprets environmental stimuli), *affectivity* (the range, intensity, lability and appropriateness of emotional responses exhibited by an individual), *interpersonal functioning*, and *impulse control* (APA, 1994).

The DSM-IV (APA, 1994) currently recognises ten personality disorders, grouped into 3 clusters, based on resemblance of presentation. *Cluster A* identifies individuals who appear odd or eccentric and includes the paranoid, schizoid, and schizotypal personality disorders. *Cluster B* refers to individuals who appear dramatic, emotional or erratic and includes the antisocial, borderline, histrionic and narcissistic personality disorders. *Cluster C* recognises individuals who appear anxious or fearful and includes the avoidant, dependant and obsessive-compulsive personality disorders (APA, 1994). Table 1.1 below presents a description of each of the currently recognised personality disorders.

By definition personality disorders are long-standing syndromes, thought to have an aetiology based in negative, pathological childhood interactions with parents, siblings, peers and significant others (Barlow & Durand, 1995). The DSM IV makes note of the fact that individuals with these disorders may or may not experience subjective distress, and, further, that in cases where distress is evident, this is usually due to a comorbid Axis I disorder (personality disorders are diagnosed on Axis II of the DSM-IV multi-axial system), rather than any distress ensuing directly from the symptomatology involved with the personality disorder (APA, 1994). It is further noted that rather than the individual themselves being affected, it is often the case that others may experience distress due to the actions of individuals with personality disorder. This is particularly common in antisocial personality disorder, where individuals are known for their blatant disregard for the rights of others, and societal norms (Hare, 1993). Personality disorders are therefore potentially debilitating conditions, possibly leading to not only subjective distress on behalf of the individual, but also affecting significant others, and the community as a whole.

Table 1.1: *DSM-IV Personality Disorders*

Personality Disorder	Description
Cluster A – Individuals appear odd or eccentric	
Paranoid personality disorder	A pervasive distrust and suspiciousness of others such that their motives are interpreted as malevolent
Schizoid personality disorder	A pervasive pattern of detachment from social relationships and a restricted range of expression of emotions in interpersonal settings
Schizotypal personality disorder	A pervasive pattern of social and interpersonal deficits marked by acute discomfort with and reduced capacity for close relationships as well as by cognitive or perceptual distortions and eccentricities of behaviour
Cluster B – Individuals appear dramatic, emotional, or erratic	
Antisocial personality disorder	A pervasive pattern of disregard for a violation of the rights of others
Borderline personality disorder	A pervasive pattern of instability of interpersonal relationships, self-image, affects, and control over impulses
Histrionic personality disorder	A pervasive pattern of excessive emotionality and attention seeking
Narcissistic personality disorder	A pervasive pattern of grandiosity (in fantasy or behaviour), need for admiration, and lack of empathy
Cluster C – Individuals appear anxious or fearful	
Avoidant personality disorder	A pervasive pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation
Dependent personality disorder	A pervasive and excessive need to be taken care of, which leads to submissive and clinging behaviour and fears of separation
Obsessive-compulsive personality disorder	A pervasive pattern of preoccupation with orderliness, perfectionism, and mental and interpersonal control, at the expense of flexibility, openness, and efficiency

Note: Adapted from DSM-IV (APA, 1994)

It is estimated that approximately 10 to 13 percent of the general population could be diagnosed with a personality disorder (Weissman, 1993), although prevalence estimates vary. Studies reporting prevalence rates of any personality disorder have reported rates of between 7 (Lenzenweger, et al., 1997) and 33 percent (Black, Noyes, Pfohl, Goldstein, & Blum, 1993). Drake and Valliant (1985), using a clinical

interview for the identification of a personality disorder diagnosis, reported the rate of having at least one personality disorder to be 23 percent.

Despite the existence of ten distinct categories of personality disorder, there exists a great deal of diagnostic overlap or comorbidity among the ten categories. For example, in a study of 291 individuals receiving a personality disorder diagnosis, Morey (1988) found considerable overlap among the diagnoses of the ten personality disorders as characterised in the DSM-III (APA, 1980). Table 1.2 presents data adapted from Morey (1988) and shows the percentage of people with a diagnosis of each DSM-III personality disorder who also qualified for another personality disorder diagnosis. For instance, from the group of individuals diagnosed with antisocial personality disorder (APD), 56 percent also qualified for a diagnosis of narcissistic personality disorder (NPD), 44 percent for a diagnosis of borderline personality disorder, and 33 percent also had a diagnosis of histrionic personality disorder.

As can be seen from Table 1.2, it is evident that antisocial personality disorder and narcissistic personality disorder share a large amount of diagnostic overlap. For people with a diagnosis of APD, the diagnosis they are next most likely to have as a comorbid condition (15 percent; Morey, 1988) is a that of NPD. Similarly, for people with a diagnosis of NPD, the diagnosis they are next most likely to qualify for (56 percent; Morey, 1988) is a diagnosis of APD.

Table 1.2: *Diagnostic Overlap Between Personality Disorders*

Percentage of People Qualifying for Other Personality Disorder Diagnoses										
<i>Diagnosis</i>	Para- noid	Schiz- oid	Schizo- typal	Anti- social	Border- line	Histri- onic	Narcis- sistic	Avoi- dant	Dep- endent	Obsess- compuls
Paranoid		23	25	8	48	28	36	48	30	8
Schizoid	47		38	3	19	9	28	53	19	16
Schizotypal	60	45		4	33	19	33	59	30	11
Antisocial	28	6	6		44	33	56	17	11	0
Borderline	32	6	9	8		36	31	36	34	2
Histrionic	29	5	8	10	56		54	32	30	5
Narcissistic	36	14	14	16	47	53		36	27	11
Avoidant	40	22	20	4	44	25	29		41	17
Dependent	30	9	12	3	51	29	26	49		9
Obsessive- compulsive	22	22	13	0	9	13	30	57	26	

Note. Table adapted from Morey (1988)

Further complicating the clinical picture of antisocial and narcissistic individuals is the complicated life progression of these disorders. For example, a majority (54 of 57) of the antisocial individuals followed briefly (1.5 years on average) by Robins, Gentry, Munoz and Marten (1977) were still antisocial at follow-up. Perry (1988) made particular note of the stability of the ‘impulsivity’ trait in antisocial individuals (as per DSM-III criteria) in their 1 to 3 year follow up investigation. Longer-term follow up studies have found a similar stability of antisociality. For instance, Black, Baumgard and Bell (1995), reported little change in life course or diagnosis in their 16- to 45-year follow up study of antisocial men. This group was noted for its high psychiatric comorbidity and persistent legal difficulties (Black et al. 1995). More recently, Dinwiddie and Daw (1998), in their assessment of the stability of APD, also concluded that the disorder demonstrated considerable stability over time.

Evidence also exists for the spontaneous remission of APD. Arboleda-Florez and Holley (1991) reported a tendency for criminality to decrease in their long-term (25- to 51-year) follow-up of antisocial individuals diagnosed according to DSM-III-R criteria. Furthermore, in their epidemiological follow-up study of antisocial

adolescents, Robins, Tipp and Przybeck (1991) reported that only 47 percent of participants had criminal records, and only 37 percent still met APD criteria at follow-up years later.

This apparent remission after age 40 (Robins et al. 1991) has been explained in terms of the identification of ‘early’, adolescent characteristics. Dilallia and Gottesman (1990) consider what they call ‘continuous antisocial’ adolescents (adolescent delinquents with greater negative genetic influences and environmental circumstances) as the most problematic and the most likely to persist in antisocial (including criminal) activity. In contrast, ‘transitory antisocial delinquents’ do not tend to go on to express antisociality as adults. Myner, Santman, Cappelletty and Perlmutter (1998) identify an early age at first conviction and a history of early alcohol abuse as strong indicators of later recidivism in juvenile offenders.

There are fewer studies demonstrating the outcomes of people with narcissistic personality disorder (Stone, 2001). Further complicating the literature is the inherent difficulty in identifying ‘pure’ narcissists, as comorbidity with other personality disorders is high. For instance, antisocial, and particularly psychopathic (see next section of this chapter for a discussion of psychopathy) individuals are, by definition, also narcissistic (APA, 1994, Hare, 1980, 1985). Nevertheless, some evidence exists attesting to the problematic life course of individuals with narcissistic personality disorder. For instance, Plakun (1989), in a 14-year follow-up study, found that patients with NPD were more likely than borderline patients to be readmitted to hospital. McGlashan and Heinssen (1989) and Stone (1989a) have further demonstrated that the global functioning outcome for narcissistic patients was the

same as that of borderline patients (ie poor), provided there was no comorbid APD diagnosis. Stone (2001) also suggests that narcissistic traits may predispose an individual to suicide, particularly among individuals who lose what they consider vital to their sense of self (eg wealth, social status, physical prowess, etc.).

Given the very high comorbidity between NPD and APD, and their respective complicated life progression, a number of questions arise in terms of the conceptualisation of these two disorders. Paramount among them is the question of whether narcissism and antisocial personality disorder are distinct disorders or whether one represents a subset of the other. The association between NPD and APD has been observed by a number of studies using clinical interviews, and these have demonstrated that approximately 25% of patients meeting criteria for one of these diagnoses meet criteria for the other (Gunderson, Ronningstram & Smith, 1991; Widiger & Corbett, 1993). Gunderson and Ronningstram (2001) investigated the descriptive discriminability of APD and NPD, by comparing 24 patients with NPD and 16 patients with APD on 33 characteristics for pathological narcissism assessed with the semi-structured Diagnostic Interview for Narcissism. They concluded that their observations confirmed a sufficiently broad array of similarities between the disorders to warrant an underscoring of the question of whether these diagnostic categories should be kept separate.

This thesis examines the question of the relationship between APD and NPD. In doing so, it focuses on the attempt to answer one central question of interest; *in what sense are these two disorders discriminable?* That is, this thesis seeks to *differentiate* APD and narcissism by exploring each of these constructs in two related but distinct

spheres of human functioning; namely, the ‘interpersonal’ and ‘cognitive’ spheres. In characterising the APD and narcissism constructs in interpersonal and cognitive terms, a dimensional model of personality disorder is adopted, where APD and narcissism are considered dimensional traits, with APD and NPD representing extreme variants of normal personality functioning. In this regard, APD and narcissism are not considered qualitatively distinct from normal personality, rather quantitatively different.

In the above section, the term antisocial personality disorder has been used to refer to one of the constructs of interest to this thesis, psychopathy. The reason for this is that the term APD is the currently prevailing one for individuals demonstrating this distinct cluster of personality pathology within psychiatric nomenclature, the DSM-IV. In actuality, APD represents a single aspect of the theoretically more inclusive psychopathy construct. This issue will be discussed in greater detail in the next section.

1.2 PSYCHOPATHY

1.2.1 Psychopathy and Antisocial Personality Disorder (APD):

Historical Background

Although they comprise only a small number of the general population – estimates vary between 1 and 3% - psychopaths make up between 15 to 25% of prison populations, between 33 and 80% of chronic criminal offenders, and are responsible for a disproportionately large amount of criminal activity, violence and general social distress in virtually every society (Hare, 1993; Mealey, 1995). Hare describes psychopaths as...

“ ...intraspecies predators who use charm, manipulation, intimidation, and violence to control others and to satisfy their own selfish needs. Lacking in conscience and in feelings for others, they cold-bloodedly take what they want and do as they please, violating social norms and expectations without the slightest sense of guilt or regret.” (Hare, 1996).

Psychopaths are individuals who exhibit a unique constellation of interpersonal, behavioural and affective symptoms. They consistently violate social norms in the pursuit of personal gratification, are pathological liars, impulsive, irresponsible and exhibit a lack of remorse, guilt and empathy.

This particular pattern of symptoms has been referred to by different labels, and conceptualised in varying forms, since first identified as a specific disorder by Pinel in

1801. The literal meaning of the term '*psychopathic*' is "psychologically damaged", and was initially used in German psychiatry, where the term originates, as a generic term referring to a heterogeneous group of abnormal personalities, not necessarily only those marked by antisocial behaviour (Blackburn, 1998). Pritchard used the term *moral insanity* (1837) to describe individuals who exhibited socially deviant behaviour. He stated that these individuals were unable to conduct themselves "with decency and propriety in the business of life" (cited in Blackburn, 1988, p.507). In an effort to introduce this idea of moral insanity into the legal sphere, the British encapsulated Pritchard's term in the legal category of *moral imbecile* in the Mental Deficiency Act of 1913. This action led to psychiatrists using the term *psychopath* to describe individuals who were not necessarily mentally deficient, but rather chronic criminal offenders who were assumed to be morally lacking in some way (Blackburn, 1988). This new legal category, and Pritchard's *moral insanity* term, emphasised the purported moral deficiency observable in habitually antisocial individuals. However, as Blackburn (1988) observes, antisocial acts have multiple determinants. This being the case, psychopathology, and specifically personality deviation, should not be directly inferred from such antisocial behaviour.

The view that a perceived flaw in a person's moral structure was sufficient grounds to constitute a 'disease' or illness was stated explicitly and promoted by Henderson in 1955 (Blackburn, 1988). This ideal, as well as the use of the term 'psychopathic' as a label for it, was formalised in the "psychopathic disorder" category in the English Mental Health Act of 1959. The definition for this disorder was one which effectively equated psychopathy with antisocial conduct. Walker and McCabe (1973) further make the suggestion that the original intention was for the term psychopathic to be

used to denote any of the non-psychotic psychiatric disorders, but that specific antisocial characteristics had become ingrained.

In the US in 1930, Partridge used the term *psychopath* more globally. His definition referred to a *group* of disorders, somewhat akin to what today is known as the DSM-IV, Axis II personality disorders (APA, 1994). Later, he proposed the term *sociopath* instead of psychopath, intending in doing so to convey a supposed environmental/sociological aetiology of the disorder. In 1952 the global term '*psychopathic personality*' was discarded and replaced by the category of *personality disorders* (Cleckley, 1976). These were distinguished from the psychoses and neuroses, and included the group of different disorders previously covered under the global heading of psychopathic personality.

It is widely accepted however, that the seminal conceptualisation of psychopathy was provided by Cleckley in *The Mask of Sanity* (Cleckley, 1976). In this text Cleckley elaborated upon 16 characteristics which he thought typified the prototypical psychopathic individual. In so doing, Cleckley greatly influenced future clinical and empirical conceptualisations of psychopathy by describing the disorder through a list of specific (mainly personality) traits (Table 1.3).

As is evident from Table 1.3 below, Cleckley conceptualised the prototypical psychopath in terms of personality characteristics. This is an important element to consider when one considers contemporary conceptualisations of psychopathy, and their reliance on behavioural indicators of antisociality, as is, for example, encapsulated in the DSM-IV category of antisocial personality disorder (APA, 1994).

Table 1.3: *Cleckley's Conceptualisation of Psychopathy*

Personality Characteristics of the Psychopath	
1	Superficial charm and good intelligence
2	Absence of delusions and other signs of irrational thinking
3	Absence of nervousness or psychoneurotic manifestations
4	Unreliability
5	Untruthfulness and insincerity
6	Lack of remorse or shame
7	Inadequately motivated antisocial behaviour
8	Poor judgment and failure to learn by experience
9	Pathologic egocentricity and incapacity for love
10	General poverty in major affective reactions
11	Specific loss of insight
12	Unresponsiveness in general interpersonal relations
13	Fantastic and uninviting behaviour with drink and
14	sometimes without
15	Suicide rarely carried out
16	Sex life impersonal, trivial, or poorly integrated
	Failure to follow any life plan

Cleckley warned against simply characterising psychopaths as criminals, and by equating psychopathy with delinquency and antisocial behaviour. He makes numerous references to the fact that *outward appearance* is not necessarily consistent with the degree of actual pathology present in the individual psychopath. Nor does outward appearance equate with the degree of internal, subjective distress experienced by the psychopath - in spite of his or her apparent material success.

Cleckley observes that psychopaths are able to deftly maintain a façade of normality. This outward appearance may take many forms, including ‘successful’ business or professional careers. Cleckley writes;

“It must be remembered that even the most severely and obviously disabled psychopath presents a technical appearance of sanity, often one of high intellectual capacities, and not infrequently succeeds in business or

professional activities for short periods, sometimes for considerable periods.”
(Cleckley, 1976, p. 198)

This is a comment on the genuine nature of the true psychopath. Contrary to popular descriptions, which equate psychopathy with extreme criminality, the psychopath can participate as quite a successful member of society. It is not unusual, observes Cleckley, to find psychopaths functioning as successful lawyers, executives, physicians or politicians.

Since Cleckley’s characterisation, the conceptualisation of psychopathy has undergone a number of metamorphoses, including considerable disagreement as to how this disorder should be assessed and diagnosed. Currently, DSM-IV has attempted to encapsulate the disorder in the Axis II diagnostic category of APD (APA, 1994). Most researchers in the field however, agree that this diagnostic category represents a construct shift from traditional clinical conceptualisations of psychopathy, and as such identifies only one ‘branch’ of the true psychopath (Hare, Hart & Harpur, 1991; Harpur, Hart & Hare, 1994; Blackburn, 1998).

1.2.2 Modern Conceptualisations: Primary and Secondary Psychopathy

Over the past two decades, researchers have used the seminal Cleckleyan conceptualisation as a foundation for both the elucidation of the construct of psychopathy, and the development of instruments designed to objectively measure psychopathy (Hare, 1980; Hare, 1985; Hare, 1991; Harpur, Hart & Hare, 1994; Levenson, Kiehl & Fitzpatrick, 1995; Lilienfeld & Andrews, 1996).

Empirical investigations have increasingly focussed on the distinction between ‘primary’ and ‘secondary’ psychopathy, originally described by Karpman (1948) and later empirically elucidated by Blackburn (1975). In her discussion of the sociobiology of sociopathy, Mealey (1995) makes the observation that the term ‘primary’ psychopath is generally reserved for individuals who may be characterised by a complete lack of social emotions, while ‘secondary’ psychopaths are individuals who maintain antisocial behaviour in the absence of any observable emotional deficit. Indeed, Blackburn’s (1975) original MMPI profile of ‘primary’ psychopaths as aggressive, impulsive and under-socialised, and ‘secondary’ psychopaths as exhibiting these same qualities *in addition to* social introversion and guilt-proneness, concurs with Mealey’s description.

On the basis of the descriptions of psychopathy set out above, it appears reasonable to conclude that the current conceptualisation of *primary* psychopathy is comparable to Cleckley’s (1976) original conceptualisation of the psychopathic personality (Table 1.3 above). That is, primary psychopaths are characterised as being extremely self-centred, manipulative and exploitative of others. Many clinicians and researchers now

agree that the core personality characteristics of primary psychopathy appear to be: impulsivity; lack of guilt, loyalty or empathy; an incapacity to form and maintain meaningful relationships; inability to profit from experience; profound egocentricity and superficial charm (Harpur, et al. 1994).

This core conceptualisation of the psychopathic personality has been extended by contemporary theorists to include the characteristics of impulsivity, antisociality, and deviant behaviour (Harpur, Hare & Hakstain, 1989; Levenson, Kiehl, & Fitzpatrick, 1995). These are the characteristics thought to be representative of secondary psychopathy.

1.2.3 Hare's Two-Factor Conceptualisation of Psychopathy And the Psychopathy Checklist – Revised (PCL-R)

Hare (1980) developed what is currently widely acknowledged by researchers as the 'gold standard' in the measurement of psychopathy (Hare, et al. 1991; Lilienfeld & Andrews, 1996; Poythress, Edens & Lilienfeld, 1998; Blackburn, 1998). Indeed, Blackburn states that "...the operationalisation of the construct (psychopathy) through the development of the...PCL-R promises to bring some order to a field known...for its conceptual confusion..." (Blackburn, 1998, p269). The original Psychopathy Checklist (PCL; Hare, 1980) was a 22-item rating scale designed to measure the construct of psychopathy as described by Cleckley (1976) in male, incarcerated populations. This focus on the hypothesised core personality characteristics of psychopathy demanded the inclusion in the measure of many of the trait concepts

omitted from the DSM III, the nomenclature of psychiatric disorders prevailing at the time (APA, 1980).

Furthermore, the PCL treated each of the characteristics it measured as open concepts. That is, the clinician was provided with a trait description, as well as behavioural exemplars, and was required to make a clinical judgement about the extent to which a person exhibits the trait based on this information. This represented a significant shift from diagnostic practice at the time, where the use of closed concepts ignored (and continues to do so) the fact that a given trait can be manifested in a wide range of behaviours, and that any given behaviour can itself reflect more than one personality trait (Widiger, Frances & Trull, 1989).

The original PCL was later revised, resulting in the current 20-item PCL-R (Hare, 1985, 1990, 1991). The revised version is designed to measure two hypothesised factors of psychopathy. That is, both the behavioural indicators and personality traits considered fundamental to the construct of psychopathy (Hare et al. 1991). The PCL-R is completed on the basis of a semi-structured interview and detailed collateral information obtained from institutional file information and other records. Each item (Table 1.4) is scored on a 3-point scale (0, 1, 2), where 0 indicates that the item *definitely does not apply*, 1 that *it applies somewhat or only in a limited sense*, and 2 that the item *definitely does apply to the person*. Total scores on the PCL-R can therefore range from 0 to 40, with higher scores reflecting a greater amount of psychopathic traits being present in an individual. For research purposes, a score of 30 or greater is generally considered indicative of a diagnosis of psychopathy (Hare, 1998, 1991; Harpur, Hart, Hare, 1994).

The PCL-R has been shown to be a reliable and valid instrument when used with male offenders and forensic patients (Hare, 1991; Harpur, et al. 1994; Hart & Hare, 1998). As mentioned above, factor analysis of the PCL-R items has led to the identification of two highly replicable factors underlying the 20 items of the PCL-R (Hare, et al. 1990; Harpur et al. 1988; see Table 1.4). Factor 1 (interpersonal/affective) describes an interpersonally and affectively deficient individual, exhibiting characteristics such as superficial charm, grandiosity, pathological lying, manipulateness, a lack of remorse, empathy or guilt, shallow affect and a failure to accept responsibility for one's actions. Evidence also exists attesting to the construct validity of the PCL-R's Factor 1. Findings have consistently demonstrated that Factor 1 is positively correlated with clinical ratings of psychopathy, with prototypicality ratings of narcissistic and histrionic personality disorder, as well as with self-report measures of machiavellianism and narcissism (Hare, 1991; Harpur, et al. 1989; Hart & Hare, 1989). These findings further underpin the association between narcissism and psychopathy discussed in the previous section. Factor 1 has also been found to be negatively correlated with measures of empathy and anxiety, further adding to its construct validity by confirming the assertion that primary psychopaths lack empathy and the ability to experience anxiety.

Factor 2 (social deviance) reflects a socially deviant, chronically unstable individual marked by poor behavioural controls, impulsivity and irresponsibility. This factor is positively correlated with the DSM-IV diagnosis of APD, criminal behaviours, socioeconomic background, and self-report measures of poor socialisation and antisocial behaviour (Hare, 1991; Harpur et al., 1989; Harpur, et al., 1994).

Table 1.4: *Items and factor structure of the PCL-R*

Psychopathy Checklist - Revised – Items and factor structure

Factor 1 (interpersonal / affective)

1. Glibness / superficial charm
2. Grandiose sense of self-worth
4. Pathological lying
5. Conning/manipulative
6. Lack of remorse or guilt
7. Shallow affect
8. Callous/lack of empathy
16. Failure to accept responsibility for actions

Factor 2 (social deviance)

3. Need for stimulation/proneness to boredom
9. Parasitic lifestyle
10. Poor behavioural controls
12. Early behaviour problems
13. Lack of realistic, long-term goals
14. Impulsivity
15. Irresponsibility
18. Juvenile delinquency
19. Revocation of conditional release

Items not included in factor scales

11. Promiscuous sexual behaviour
 17. Many short-term marital relationships
 20. Criminal versatility
-

One major limitation of the PCL-R is the amount of time required for its administration. Each individual must first undergo a semi-structured interview, a procedure that even for the screening version of the PCL (PCL:SV; Hart, Cox & Hare, 1995) would take 30 to 60 minutes. The information obtained from this interview must then be cross-referenced and complemented through the use of collateral information such as prison records, previous medical and psychiatric histories and interviews with significant others. These lengthy data collection procedures, and the training that researchers must undergo in order to complete the assessment appropriately, make the screening of large numbers of participants an arduous and time-consuming task.

Furthermore, as well as being lengthy and inordinately time-consuming to administer, the PCL-R was designed specifically for use with an institutionalised population of offenders (Ferrigan, Valentiner & Berman, 2000). These considerations, along with a recent revival of interest in the sub-clinical manifestations of psychopathy, have led a number of researchers to develop self-report measures of psychopathy.

1.2.4 Levenson's Self-Report Psychopathy Scale (LSRP)

The use of self-report in the measurement of psychopathy is generally thought to be intrinsically flawed due to the observed characteristics of the disorder. Psychopaths are deceptive and manipulative by nature, characteristics which would appear to make self-report counter-productive as an assessment and diagnostic method. Furthermore, the narcissistic characteristics of psychopaths, such as grandiosity and superficiality, means that they have a strong tendency to present themselves in an unrealistically positive light (Hart & Hare, 1998). However, Hart & Hare (1998) have suggested that self-report measures of psychopathy may be most appropriate in research on 'normal' populations. For example, they refer to Levenson, et al.'s (1995) development of the LSRP instrument, describing it as "...a self-report instrument that attempted to capture faithfully the Cleckleyan concept of psychopathy using an 'antisocial desirability' manipulation that allows (respondents) to report psychopathic traits while maintaining the impression of positive self-representation" (p.420)

Levenson, et al. (1995) developed a self-report inventory designed to measure the Cleckleyan conceptualisation of psychopathy, while reflecting the two-factor structure

observed by Hare (1985). The Levenson Self-Report Psychopathy Scale (LSRP) is a 26-item self-report inventory answered on a 4 point scale from 1 (strongly disagree) to 4 (strongly agree) (Levenson et al. 1995; Lynam, Whiteside & Jones, 1999). The LSRP is composed of two sub-scales. Each of the two sub-scales refers to one of the hypothesised domains of psychopathy. The first domain (primary psychopathy) refers to a callous, manipulative, and selfish use of others, and contains most of the personality characteristics associated with the traditional Cleckleyan conceptualisation of psychopathy (Cleckley, 1976). The second domain (secondary psychopathy) refers to social deviance, as manifested by impulsivity and poor behavioural controls. A total score is obtained by adding the scores on each of the primary and secondary psychopathy sub-scales. Higher total scores on the LSRP represent a greater degree of psychopathy. Similarly, higher scores on each sub-scale (primary and secondary) represent a greater degree of primary and/or secondary psychopathy respectively.

Levenson et al. (1995) report satisfactory internal consistency for these scales with the reliability (alpha) coefficients for the primary and secondary psychopathy scales as .83 and .63 respectively. Lynam et al. (1999) also reports acceptable reliability (internal consistency) for the two scales with Cronbach alpha coefficients of .84 and .68 for primary and secondary psychopathy respectively. The correlation between the scale scores in the Lynam et al. (1999) study was moderate ($r=.43$). Other investigators have also reported favourable internal consistency measures in their use of the LSRP (Ferrigan, et al. 2000; Brinkley, Schmitt, Smith and Newman, 2001).

Ferrigan, et al. (1999) have reported evidence for predictions derived from the two-factor model of psychopathy utilising the LSRP with a non-forensic sample. Male

university students completed the LSRP and then either watched a film depicting overt aggression or a neutral film. After viewing the film, participants completed self-report ratings of negative and positive consequences for engaging in aggressive behaviour. Ferrigan et al. (1999) observed that the primary psychopathy dimension and awareness of negative consequences of aggressive behaviour were unrelated in the neutral film condition, but were negatively associated in the aggressive film condition. In contrast, the secondary psychopathy dimension and awareness of positive consequences of aggressive behaviour revealed a positive association in the neutral film condition, but showed no relationship in the aggressive film condition. They concluded that the results were consistent with the two-factor model's description of cognitive processes thought to be associated with primary and secondary psychopathy. That is, the higher the degree of primary psychopathy an individual displays (the greater the extent that they possess the core personality characteristics of psychopathy), the less awareness of *negative* consequences they demonstrate *when exposed to an aggressive stimulus*. Moreover, the greater the degree of secondary psychopathy possessed by an individual (ie the greater the extent that they are impulsive, and demonstrate socially deviant behaviours), the greater is their awareness of *positive* consequences *when exposed to an ambiguous (neutral) stimulus*.

The evidence reviewed in this section suggests that the LSRP is a useful tool for the operationalisation of the bi-factorial psychopathy construct in a normal population. In studies employing the LSRP in normal populations, it has been shown to possess acceptable internal consistency, and there is some evidence for its construct validity.

1.3 NARCISSISM

1.3.1 The Origins of Narcissism

The term ‘narcissism’ originated with the Greek myth of Narcissus, one version of which was elaborated by the Latin poet Ovid (Stevens, 2000). Briefly stated, the myth tells the tale of a young boy, Narcissus, who fell in love with his own image reflected in a spring. Unable to tear himself away from his reflection, he remained there until he died of starvation, his body being replaced with a flower.

When psychological writers refer to an individual as being narcissistic, they are referring to the characteristics embodied by Narcissus. From details of the myth, Narcissus can be said to have demonstrated traits such as a lack of personal awareness, a lack of empathy for the feelings of others, lack of emotionality, arrogance, a poorly differentiated self and grandiosity (Stevens, 2000).

Narcissism as a psychopathological construct can be traced back to origins within psychoanalytical theory. Although Havelock Ellis and Nacke first introduced the term narcissism to psychiatry at the end of the nineteenth century, Freud and Rank first used the term to describe personality processes characterised by self-love and self-centredness (Rivas, 2001). Subsequently, it was Kohut (1971, 1977) who was credited with the term ‘*narcissistic personality disorder*’ on the basis of his clinical work with narcissistic individuals.

1.3.2 Narcissistic Personality Disorder (NPD)

The concept of the narcissistic personality has attracted considerable attention in the past few decades. A large amount of this attention has been restricted to clinical and theoretical speculation, although the inclusion of ‘Narcissistic Personality Disorder’ in the DSM-III (APA, 1980) has led to a proliferation of more empirical interest in the narcissism construct. To date, much of this empirical interest has been dedicated to the development of instruments to measure narcissism.

The DSM-IV (APA, 1994) describes the essential features of NPD as a pervasive pattern of grandiosity, need for admiration, and lack of empathy for the feelings of others. This pattern is present by early adulthood and manifests in a variety of contexts. As noted earlier, NPD is one of the four personality disorders which, along with antisocial, borderline and histrionic, make up cluster B of Axis two of the DSM IV diagnostic system. The DSM-IV diagnostic criteria for NPD appear in Table 1.5 below.

One of the major criticisms of the DSM’s classification system is its categorical approach to diagnosis. With the inclusion of personality disorders in the DSM-III (APA, 1980), numerous researchers have observed that there appear to be arbitrary points of delineation, forming the boundaries for personality disorders along dimensions of normal functioning (Blackburn, 1998; Livesley, Schroeder, Jackson & Jang, 1994). Of the Axis II disorders, the DSM-IV states, “Only when personality traits are inflexible and maladaptive and cause significant functional impairment or subjective distress do they constitute personality disorders.” (APA, 1994, p.648).

However, nowhere among the diagnostic criteria or the accompanying explanatory text are such terms as “subjective distress” or “significant functional impairment” properly elucidated. It is only stated that this is a difficult clinical judgement. The core issue here is the notion of categorical versus dimensional models of classification.

Table 1.5: *Diagnostic Criteria for Narcissistic Personality Disorder*

A pervasive pattern of grandiosity (in fantasy or behaviour), need for admiration, and lack of empathy, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Has a grandiose sense of self-importance (eg, exaggerates achievements and talents, expects to be recognised as superior without commensurate achievements)
 2. Is preoccupied with fantasies of unlimited success, power, brilliance, beauty, or ideal love
 3. Believes that he or she is “special” and unique and can only be understood by, or should associate with, other special or high-status people (or institutions)
 4. Requires excessive admiration
 5. Has a sense of entitlement, ie, unreasonable expectations of especially favourable treatment or automatic compliance with his or her expectations
 6. Is interpersonally exploitative, ie, takes advantage of others to achieve his or her own ends
 7. Lacks empathy: is unwilling to recognise or identify with the feelings and needs of others
 8. Is often envious of others or believes that others are envious of him or her
 9. Shows arrogant, haughty behaviours or attitudes.
-

Note. Taken from DSM-IV (APA, 1994)

In presenting a categorical model of taxonomy, according to the DSM-IV (APA, 1994), a diagnosis is said to be present if an individual meets a predetermined set of criteria. For instance, as Table 1.5 shows, a person who satisfies five or more out of the possible nine criteria for NPD is diagnosed with the disorder, and thought of as *qualitatively* different from a person who does not meet these criteria.

Dimensional models on the other hand, are founded on the idea that personality disorders such as NPD are dimensional constructs. As such, they are composed of a

number of traits, or characteristics, (analogous to the DSM-IV criteria) which occur together to form the disorder. From this perspective, *all* individuals are purported to possess these traits, to varying degrees. The extent to which any given individual possesses a greater degree of a number of these constructs is what defines them as being ‘normal’ or pathologically narcissistic. Under this perspective, individuals with NPD are not considered to be *qualitatively*, but rather *quantitatively* distinct from normal, non-pathologically narcissistic individuals.

Dimensional models of personality disorder have received increased attention in the literature (Balckburn, 1998; Widiger, 1998). A number of dimensional models of narcissistic personality disorder have been proposed. Kernberg, (1989) conceptualised narcissism in terms of a single dimension ranging in severity from normal to pathological. Watson, Hickerman and Morris (1996) also found evidence in support of the hypothesis that self-reported narcissism can be defined on a continuum of unhealthy to healthy self-functioning. Other authors have proposed slightly different variations of this dimensional model, conceptualising the narcissism construct in terms of two distinct subtypes: overt and covert narcissism (Wink, 1991; Wink & Donahue, 1997). This distinction is discussed below within the context of the literature on the development of measures for narcissism.

As mentioned earlier, the recent resurgence of interest in narcissism has led to the development of self-report instruments designed to measure the narcissism construct. Several of the developed scales, including the most widely used scale, the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979) have shown high inter-correlations, indicating an acceptable degree of convergent validity. However, one important

exception was that the NPI did not correlate with the Narcissistic Personality Disorder Scale (NPDS: Ashby, Lee, & Duke, 1979), another widely used measure of narcissism (Wink & Gough, 1990; Emmons, 1987).

Wink (1991) sought to clarify this lack of correlation among two presumed measures of the same construct (narcissism) by investigating their relations with other measures of narcissism. In a principle components analysis of six Minnesota Mutliphasic Personality Inventory (MMPI) narcissism scales, Wink observed the emergence of two orthogonal factors: one indicating *vulnerability and sensitivity*, and the other implying *grandiosity and exhibitionism*. This finding was later replicated by Rathvon and Homstrom (1996) in a study developing an MMPI-2 description of narcissism. Wink has since postulated the existence of two distinct types of narcissism: overt and covert.

The overt form of narcissism is reflected in the DSM-IV criteria of NPD, and is characterised by arrogant self-assurance, blatant self-confidence, and flagrant displays of superiority (Wink, 1991). This is the form Wink (1991) associates with the grandiosity-exhibitionism factor which emerged in his analysis. Covert narcissism on the other hand, is characterised by suppressed ideas of grandeur but an openly displayed lack of self-confidence and initiative, vague feelings of depression, and an absence of 'zest for work' (Wink, 1991). Covert narcissists are described as sensitive, anxious and insecure, but on close contact frequently surprise others with their grandiose fantasies. Both overt and covert forms of narcissism are presumed to share the core traits of exploitativeness and a sense of entitlement (Wink, 1991). Wink also noted that while both overt and covert forms of narcissism shared these common

narcissistic traits of conceit, self-indulgence, and a disregard for the needs of others, they also differed in terms of the associated psychological distress/problems associated with each sub-type. Difficulties associated with overt narcissism (vulnerability-sensitivity factor) included anxiety and pessimism, a lack of fulfilment, and a vulnerability to life's traumas. On the other hand, the difficulties associated with the grandiosity-exhibitionism factor (overt narcissism) were related to overconfidence, aggressiveness at the cost of others, and excessive need for admiration from others. Given these observations, Wink (1991) suggests that any investigation into the narcissism construct should emphasise both overt and covert forms of narcissism in order to "...capture the full richness of the construct." (Wink, 1991, p596).

1.3.3 Measurement of Overt and Covert Narcissism

Subsequent to Wink's (1991) observations, the NPI has become the most widely accepted and used measure of overt narcissism, as conceptualised in the DSM-IV diagnostic criteria for NPD (APA, 1994). However, researchers interested in covert narcissism were required to rely upon the less well known MMPI-based clinical measures of covert narcissism studied by Wink (1991). Hendin and Cheek (1997) have since developed the Hypersensitivity Narcissism Scale (HSNS, Hendin & Cheek, 1997) as a measure designed to operationalise the covert narcissism construct described by Wink (1991).

1.3.4 The Narcissistic Personality Inventory (NPI)

The NPI was initially developed to explore individual differences in narcissism, within non-clinical populations. The initial 80-item scale (Raskin and Hall, 1979) was developed using an internal consistency and item-total correlation strategy. In further studies (Raskin, 1980; Raskin and Hall, 1981) the internal consistency approach was again employed to further cull this scale down to a 54-item measure of overt narcissism with high internal consistency. In a principle components analysis of the NPI (Raskin and Terry, 1988) this 54-item measure was further reduced to the current 40-item scale.

The 40-item NPI consists of a (true / false) questionnaire designed to measure overt narcissism as conceptualised by the DSM IV definition of NPD. Higher total scores on the NPI are indicative of greater degrees of overt narcissism.

1.3.5 The Hypersensitive Narcissism Scale (HSNS)

In their review of narcissism measures, Raskin and Terry (1988) referred to Murray's Narcism Scale (1938), which was developed using other indices of personality characteristics via an exploratory study of university undergraduate students. Hendin and Cheek (1997) make the comment that Murray's concept of narcissism remains a valid one within contemporary discourse due to his reference to the overt-covert distinction within narcissistic individuals. Murray noted that while narcissistic individuals can appear self-aggrandising and exploitative, exhibiting extravagant

needs for attention, they may also present with a proneness to feelings of neglect, and tend to exhibit hypersensitivity, feelings of anxiety, and persecutory delusions (cited in, Hendin & Cheek, 1997). Hendin and Cheek (1997) then sought to utilise the ‘neglected’ resource of Murray’s Narcism Scale, which was observed to contain items assessing both covert and overt narcissistic tendencies.

Hendin and Cheek (1997) correlated the 20 items from Murray’s Narcism Scale with a composite of two MMPI-based measures of covert narcissism (the NPDS and the Narcissism-Hypersensitivity Scale) as well as with the NPI. They reasoned that the MMPI-based description of Murray’s scale should lead to the identification of those items which are consistent with contemporary approaches to covert narcissism, and therefore facilitate the transformation of a previously overlooked narcissism scale into a shorter measure. The result was the development of the HSNS, which can be used to assess covert narcissism.

The resulting Hypersensitivity Narcissism Scale (Hendin & Cheek, 1997) is a 10-item measure of covert narcissism. All items were found to be significantly correlated with the alternate measures of covert narcissism in two separate samples. These 10 items were observed to form a reliable scale with alpha’s for three separate samples reported as .72, .75 and .62 (Hendin and Cheek, 1997). The item content of the HSNS reflects the hypersensitivity and vulnerability which Murray had initially associated with narcissism in general, and which Wink (1991) had more recently associated with covert narcissism.

1.3.6 Conclusions

The previous section has presented a review of the narcissism literature, subsequently raising a number of issues. Firstly, although contrary to the view adopted by the current psychiatric nomenclature (ie DSM-IV; APA, 1994), dimensional models represent an adequate and satisfactory approach to the conceptualisation of narcissism. Recent investigations into the construct of narcissism have revealed two distinct types of narcissism; overt and covert. Overt narcissism is reflected in the DSM-IV diagnostic criteria for NPD and is associated with grandiosity and exhibitionism. In contrast, covert narcissism is associated with vulnerability and sensitivity and is characterised by largely unconscious feelings of grandeur, a lack of self-confidence and initiative, and feelings of depression. It should be noted that while overt and covert forms of narcissism have been identified, and well established psychometrically as discussed above, clinically, these constructs are rarely observed independently of one another. Both forms of narcissism share the core narcissistic traits of exploitativeness and a sense of entitlement. Any empirical examination of the narcissism construct is therefore obliged to consider both overt and covert types of narcissism.

The current Chapter has examined the literature on personality disorders, psychopathy and narcissism. Chapter 2 outlines the two main theories tested in this thesis: Young's schema theory (Young, 1999) and Beck's cognitive theory of personality disorders (Beck, Freeman and Associates, 1990), as they pertain to the psychopathy and narcissism constructs. The subsequent two chapters (Chapters 3 & 4) report on two studies that test specific hypotheses about the relationships between narcissism and

psychopathy. Chapter 3 reports the results of a study testing three main hypotheses: I) that the Young schema questionnaire (Young, 1999) has a five-dimensional hierarchical structure, II) that overt narcissism is associated with those early maladaptive schemas (EMS) stated as central and secondary by Young and Flanagan (1998), and III) that psychopathy and narcissism are discriminable through the utilisation of an EMS characterisation. Chapter 4 reports the results of a study testing a further two specific hypotheses: I) that secondary psychopathic traits are associated with a predefined set of cognitive distortions as per Beck et al. (1990), and II) that overt narcissistic traits are associated with the cognitive distortions mentioned by Millon and Davis (2000) and Young and Flanagan (1998). The specific EMS and cognitive distortions hypothesised as operative in psychopathy and narcissism are discussed in detail in the next chapter.

CHAPTER 2

Cognitive Theories of Personality Disorders

2.1 BECK'S COGNITIVE THEORY OF PERSONALITY DISORDERS

2.1.1 Early Development of Beck's Theory of Personality Disorders

The historical origins of Beck's cognitive theory of personality disorders can be traced back to 1956 (Alford & Beck, 1997). At that time, Beck was working on issues to do with depression, within the psychodynamic framework to which he was committed at the time. In an attempt to provide empirical support for certain psychodynamic formulations of depression, he observed some irregularities which appeared to be inconsistent with the psychodynamic model. Further empirical research studies and clinical observations designed to clarify these irregularities led Beck to eventually reformulate depression as a disorder characterised by a profound negative bias. The specific content of this bias included negative personal expectancies, and a negative view of the self, context, and future goals.

2.1.2 A Statement of Beck's Cognitive Theory

Alford & Beck (1997) have argued that their cognitive theory relies on a number of assumptions:

1. '*Schemas*' are the central governors of psychological functioning and adaptation. Schemas are cognitive structures that assign *meaning* to perception. '*Meaning*' refers to the subjective interpretation given to information within a given context.
2. The function of meaning assignment is to control the various psychological systems (ie behavioural, emotional, attentional, and memory). In this manner, meaning activates strategies for adaptation.
3. *Cognitive content specificity* – that is, that each category of meaning has implications that are translated into specific patterns of emotion, attention, memory, and behaviour.
4. *Cognitive distortions* – meanings are constructed by each person, and as such, do not necessarily represent pre-existing components of reality. When *cognitive distortion* or *bias* occurs, meanings are said to be *dysfunctional* or *maladaptive*. Cognitive distortions include errors in cognitive content (ie initial attribution of meaning), cognitive processing (ie meaning elaboration), or both.
5. *Cognitive vulnerabilities* – this is the term used to refer to the tendency for individuals to be predisposed to specific sets of faulty cognitive constructions (ie cognitive distortions). Specific cognitive distortions predispose individuals to particular syndromes. To illustrate, a tendency to make negative attributions of past and future circumstances leads to feelings of depression, while a tendency to overestimate the likelihood of negative consequences predisposes individuals to anxiety or panic.
6. *Cognitive triad* – psychopathology arises from maladaptive meanings constructed in three main areas of human existence, together known as the cognitive triad: the self, the environmental context, and the future (goals). Each clinical syndrome has characteristic maladaptive meanings associated with each of the components of

the cognitive triad, and as such, cognitive content specificity is differentiated according to the cognitive triad.

7. *Three levels of cognition* – these are a) the preconscious, unintentional, *automatic* level (‘automatic thoughts’); b) the conscious level; and c) the meta-cognitive level.

Although Beck’s cognitive theory was initially developed as a comprehensive theory of depression (Beck, Rush, Shaw & Emery, 1979), it has since been expanded to apply to the explanation of many other disorders including; anxiety disorders, psychosis, and the personality disorders (Beck et al. 1990).

2.1.3 Beck’s Theory of Personality Disorders

Beck et al. (1990) have developed a cognitive theory of personality disorder. This draws heavily on the traditional cognitive theory of psychopathology outlined above. The focus of the theory remains on the cognitive structures, central to which is the concept of schemas, with the formulation of these being explained in phylogenetic or evolutionary terms. Beck et al. (1990) suggest that cognitive, affective, and motivational processes are all governed by the content of these schemas, which themselves constitute the basic elements of personality. These schemas are stated as operating in normal personality, as well as in both Axis I and II disorders. The difference being that schemas typical of personality disorders are thought to be operative on a more continuous basis than is the case in the Axis I syndromes.

Beck et al. (1990) speculate that prototypical personality patterns are derived from our phylogenetic heritage. They suggest that their view of personality is a holistic one which takes into account the role of human evolutionary history in shaping patterns of thinking, feeling, and behaving. Much of what we as human beings perceive, feel and react to can be seen as being the manifestation of preset 'programs'. These programs, which are involved in cognitive processing, affect regulation, arousal, and motivation are thought to have evolved as a result of their ability to sustain life and promote the survival of the species.

This evolutionary approach assumes that natural selection resulted in some kind of fit between programmed behaviour and environmental demands. These programmed behaviours then developed as adaptive responses to environmental demands. This means that in the past, within more 'primitive' surroundings, it was quite adaptive to employ strategies such as predation and competition. However, the relatively rapid development of the human social milieu, compared to the more gradual development of the human phylogeny, has resulted in a discontinuity between the once adaptive programmed strategies and the current environmental demands placed on individuals.

This discontinuity is what is hypothesised to lead to the presentations we today refer to as the various personality disorders. Regardless of their survival value in past primitive environments, these evolutionary-derived patterns have become problematic in the present environment due to their interference with personal goals or group norms. Hence, what was previously an adaptive predatory strategy is in today's social context considered antisocial. Similarly, overt attention-seeking and grandiose

behaviours which would previously have adaptively served to attract prospective mates and helpers, would today be considered manifestations of narcissism.

Beck et al. (1990) provide no explanation of why only a minority of individuals ever display overt manifestations of personality disorder. It is, however, tacitly implied that the reason for this differential manifestation of pathology (that is, the amplified manifestation of previously adaptive strategies in some individuals more-so than in others) lies in a combination of each individual's biological / genetic inheritance and their idiosyncratic environmental circumstances, particularly early in life. As such the interpersonal strategies evident in people with personality disorders are adaptive given their early childhood environments. These interpersonal strategies, while adaptive in these circumstances, are no longer adaptive in adult life.

Another aspect of Beck et al.'s (1990) explanation for the amplified presentation of maladaptive interpersonal strategies in some individuals lies in the proximal internal or psychological activity of these individuals (Beck et al. 1990). Beck et al. (1990) refer to the ideas of *dysfunctional beliefs* and *cognitive distortions*, contained within an individual's cognitive schemas. Dysfunctional beliefs are firmly held assumptions about the world and other people, embedded or contained within an individual's schemas. Cognitive distortions are conceptualised as systematic information processing biases applied to incoming information which serve to distort this information for the purpose of reducing any conflict between external stimuli and the internally held schematic representations the individual has about the world. Beck et al. (1990) suggest that by examining the cognitive and affective patterns of an individual, one can observe a specific relationship between certain beliefs and

attitudes on the one hand, and behaviour on the other. Table 2.1 indicates which common beliefs and attitudes are associated with the two personality disorders (narcissism and antisocial) under discussion, and how these may be predictably associated with observable behaviours.

Table 2.1: *Basic Beliefs and Strategies Associated with Antisocial and Narcissistic Personality Disorders*

Personality disorder	Basic Beliefs/Attitudes	Strategy (Overt Behaviour)
Antisocial	“People are there to be taken”	Attack
Narcissistic	“I am special”	Self-aggrandisement

Source: Beck et al. 1990

These cognitive processes (beliefs / attitudes and cognitive distortions) are said to be *exaggerated* in individuals with personality disorders (Beck et al. 1990). These exaggerations are both qualitative in nature, and quantitative in terms of the temporal frequency of activation. That is, in a personality disordered individual, *dysfunctional beliefs* are dysfunctional (and subsequently lead to distress) because their content is biased in some systematic way, and because they are active on a more continual basis than in a non-personality-disordered individual.

As stated above, cognitive distortions are conceptualised as systematic biases which guide the perception of incoming information and distort its interpretation. In this respect, they may be interpreted as the cognitive apparatus, which dictate (at a perceptual level) the qualitative nature (ie content) of the *dysfunctional beliefs* (Beck et al. 1990; Alford & Beck, 1997).

For example, a number of cognitive distortions are commonly known to predominate in depression (Beck et al. 1979). These include, but are not limited to, the following; *selective abstraction* (the selective attention on one aspect – usually negative - of a situation, while ignoring the more positive components), *arbitrary inference* (or jumping to conclusions - ie thinking negatively about something without supportive evidence), *overgeneralisation* (interpreting one mistake or error as a general pattern of mistakes), *magnification* or *minimisation*, *personalisation* (taking responsibility for situations which are not necessarily under our control), and *dichotomous thinking* (the viewing of a given situation in black or white terms – ie in only two categories – rather than on a continuum). Exactly how these cognitive distortions govern beliefs, and, by extension, behaviour may be elaborated through an example of a depressed individual's employment of the 'overgeneralisation' distortion. An individual employing this type of cognitive distortion may believe that because they have been unable to successfully complete a single university course, they are therefore not intelligent enough to attend further classes, and may subsequently not pursue further studies. This could conceivably lead to further problems such as social isolation, leading to further feelings of inadequacy and depression. The belief expressed here would be "I failed this course, therefore I will fail all future courses". This represents the manifestation of the individual's 'overgeneralisation' cognitive distortion, and is a cognitive template contained within the individual's schema. The resulting strategy or overt behaviour is to withdraw from further university endeavours.

Although Beck et al. (1990) are not very specific about the nature of the beliefs relevant for each personality disorder, they do suggest a number of typical beliefs that may be associated with each personality disorder. These beliefs are the manifestation

of the cognitive distortions which underlie or give rise to them. Beck et al. (1990) outline more specifically the cognitive distortions presumed to be operating in antisocial individuals. These are presented in Table 2.2 below.

Table 2.2: *Cognitive Distortions Exhibited by Antisocial Individuals*

Cognitive Distortion	Example of self-serving beliefs emanating from distortion
Justification	<i>“Wanting something or wanting to avoid something justifies my actions”</i>
Thinking is believing	<i>“My thoughts and feelings are completely accurate simply because they occur to me”</i>
Personal infallibility	<i>“I always make good choices”</i>
Feelings make facts	<i>“I know I am right because I feel right about what I do”</i>
The impotence of others	<i>“The views of others are irrelevant to my decisions, unless they directly control my immediate consequences”</i>
Low-impact consequences	<i>“Undesirable consequences will not occur or will not matter to me”</i>

Source: Beck et al. (1990).

The types of cognitive distortions antisocial individuals are likely to manifest then, include self-serving beliefs that emphasise immediate, personal satisfaction while minimising future consequences. As stated earlier, the antisocial individual’s perception of reality will be altered or biased by these cognitive distortions. Their interpretation of events will be tainted by these ‘thinking errors’ which predominate their cognitive processes.

Beck et al. (1990) are not as specific in delineating the types of cognitive distortions operating in narcissistic individuals as they are with antisocial individuals. However, Millon and Davis (2000) have suggested a number of cognitive distortions believed to be operating in narcissists including; *dichotomous thinking, magnification, minimisation, and justification*. Similarly, Young and Flanagan (1998) have proposed

a number of cognitive distortions thought to be typical of the cognitive system of narcissists including; *dichotomous thinking*, *overgeneralisation*, *jumping to conclusions* (arbitrary inference), and *labelling*. In summary then, Table 2.3 below presents those cognitive distortions which Beck et al. (1990), Millon and Davis (2000), and Young and Flanagan (1998) have speculated as being characteristic of antisocial and narcissistic individuals.

Table 2.3: *Cognitive Distortions in Antisocial and Narcissistic Individuals*

Cognitive Distortion	Antisocial	Narcissistic
Dichotomous thinking		✓
Jumping to conclusions		✓
Magnification		✓
Labelling		✓
Justification	✓	✓
Thinking is believing	✓	
Personal infallibility	✓	
Feelings make facts (emotional reasoning)	✓	
The impotence of others (minimisation)	✓	✓
Low impact consequences	✓	

2.1.4 Conclusions

The cognitive theory of personality disorders, as outlined by Beck et al. (1990), grew from early cognitive conceptualisations of disorders such as depression and anxiety

(Beck et al. 1979). The focus of the theory remains on the cognitive structures known as schemas, hypothetical cognitive structures thought to contain beliefs and cognitive distortions which guide subsequent interpretation of incoming environmental stimuli.

The cognitive approach to personality disorders is explained in evolutionary terms, with personality disorders stated as being the result of previously adaptive, and now redundant programmed patterns of cognition, affect and behaviour. The development of these patterns is hypothesised as having its aetiology based in pathological childhood circumstances, when certain interpersonal strategies are adaptive given the negative circumstances. However, once the child reaches adulthood, the modified environmental and interpersonal context is such that the once adaptive interpersonal strategies are no longer adaptive.

Cognitive distortions are conceptualised as systematic biases which guide, at the perceptual level, the qualitative content of dysfunctional beliefs. That is, cognitive distortions represent the various processes by which the person taints incoming information so that it is in synchrony with the content of their underlying schemas. As set out in Table 2.3, a number of clear predictions have been made about APD and narcissism. As such, it was anticipated that secondary psychopathy (the social deviance aspect of psychopathy, and the factor most associated with APD) to be associated with the following cognitive distortions: ‘justification’, ‘thinking is believing’, ‘personal infallibility’, ‘feelings make facts’, ‘the impotence of others’, and ‘low impact consequences’ (Beck et al. 1990). It was also expected that overt narcissism be characterised by the following cognitive distortions: ‘dichotomous thinking’, ‘magnification’, ‘minimisation’, ‘justification’, ‘jumping to conclusions’,

and 'labelling'. These hypotheses about the cognitive distortions which characterise psychopathy and narcissism are tested in Chapter 4 of this thesis.

2.2 YOUNG'S EARLY MALADAPTIVE SCHEMA THEORY

Patients with personality disorders pose a particular problem for clinicians. As discussed earlier, these individuals present with long-standing, entrenched pathologies, leading to distress not only to themselves, but also to those around them. Since the development of cognitive therapy for depression (Beck, et al. 1979), cognitive therapy theorists have sought to augment cognitive theory in order to extend its applications to include the more complex personality disorders (Beck, et al. 1990). In seeking to apply cognitive theory to personality disorders, some of the limitations of applying cognitive theory as it existed for the anxiety and mood disorders became evident. Influenced by the constructivist movement (Mahoney, 1993), Young (1999) designed an integrative treatment model he referred to as *schema-focused therapy*. With this new approach he sought to create a supplementary theoretical framework, along with an eclectic therapeutic / clinical method, expanding on Beck's original cognitive model, in order to specifically address the needs of patients with chronic personality disorders. Young's schema theory can usefully be conceived as a cognitive-interpersonal conceptualisation of personality pathology.

2.2.1 The Early Maladaptive Schema Model

Young has clearly stated that the schema-focused model was not intended as a comprehensive theory of psychopathology (Young, 1999; Young & Behary, 1998). Rather, it was designed as a general heuristic, meant to guide and inform clinical endeavour and decision-making involving patients with personality disorders.

Nevertheless, schema theory represents a contemporary and promising conceptualisation of personality pathology. Young's theory is based on a conceptual framework defining early maladaptive schema development and maintenance, schema characteristics and specific schemas and their hierarchical organisations. As such it is amenable to empirical investigation.

Young reasoned that several (7) conditions had to be met for patients to succeed in clinical interventions with Beck's model of cognitive therapy (Young & Behary, 1998; Young, 1999). These assumptions of short term cognitive therapy are: that patients have access to feelings and thoughts with brief training; that patients have identifiable problems on which to focus; that the patient can engage in a collaborative relationship with the therapist within a few sessions; that patients have the motivation and ability to complete homework assignments and to learn self-control strategies; that any difficulties in the therapeutic relationship are not a major problem focus and that all cognitions and behaviour patterns can be changed through empirical analysis, logical discourse, experimentation, gradual steps and practice.

Unlike individuals with Axis I disorders such as depression, personality disordered patients often do not satisfy these criteria for short-term cognitive therapy. Young (1999) elaborated on the particular characteristics of the personality disordered that make them less suited to intervention via standard cognitive therapy. These characteristics include *rigidity*, *avoidance* (cognitive and affective) and significant *interpersonal difficulties*. Young proposed therefore, that Beck's model required significant modifications to address these challenging idiosyncratic characteristics. In conceptualising these problems, Young synthesised cognitive, behavioural,

experiential and interpersonal techniques to derive his schema-focused therapy, which centred around the theoretical concept of the early maladaptive schema as the unifying element (Young, 1999). In adapting the theory of cognitive therapy to suit personality disorders, Young's conceptualisation becomes a cognitive-interpersonal one.

The concept of the schema in cognitive and clinical literature is not a new one. Segal (1988) defined schemata as organised elements of past reactions and experience that form an enduring body of knowledge which can guide subsequent perceptions and appraisals. As has been shown in the previous section, Beck also noted the importance of schemas in some of his early work on the cognitive theory of depression stating that a schema is a (cognitive) structure utilised for the screening, coding and evaluating of stimuli that impact on the organism (Beck, et al. 1990). The concept of the schema then, has traditionally been described as a hypothetical cognitive structure which develops from a young age, is supplemented by ongoing experience, and serves to in some way influence incoming external information. This has the effect of modulating perception, and hence subjective experience and, subsequently, behaviour.

2.2.2 Early Maladaptive Schemas as a Cognitive-Interpersonal Conceptualisation of Personality Pathology

Young has proposed a specific set of schemas, *early maladaptive schemas* (EMS), as underlying personality pathology (Young, 1999). An EMS is defined as an extremely stable and enduring interpersonal theme that develops during childhood, is elaborated throughout one's lifetime, and is dysfunctional to a significant degree (Schmidt, Joiner, Young & Telch, 1995; Young & Behary, 1998; Young, 1999). The focus of schema theory on EMS, hypothesised as representing the deepest level of cognition and affect, represents a departure from traditional cognitive therapy where the focus is usually on automatic thoughts and underlying assumptions.

Young (1999) has identified 18 EMS, grouped into 5 schema domains. Table 2.4 displays the current 18-schema conceptualisation along with the schema domains to which they belong. Appendix I contains a more comprehensive definition and description of each EMS and schema domain.

Early maladaptive schemas are stated as having a number of defining characteristics. One of these characteristics is that EMS influence interpersonal interactions via distortions in perceiving interpersonal behaviour. Young presents the example of a woman with the 'subjugation' schema who may repeatedly select men who are domineering as partners. By doing so, she adopts a subordinate role, one which is comfortable and familiar, because it is in harmony with her subjugation schema. Young asserts that this type of maladaptive selection in interpersonal relationships

represents one of the more prevalent mechanisms of schema maintenance (the process by which schemas are reinforced over time).

Table 2.4: *Schema Domains and Early Maladaptive Schemas*

Schema Domain	Early Maladaptive Schemas
Disconnection & Rejection	Abandonment / instability Mistrust / abuse Emotional deprivation Defectiveness / shame Social isolation / alienation
Impaired Autonomy & Performance	Dependence / incompetence Vulnerability to harm / illness Enmeshment / undeveloped self Failure
Impaired Limits	Entitlement / grandiosity Insufficient self-control / self-discipline
Other-Directedness	Subjugation Self-sacrifice Approval-seeking / recognition-seeking
Over-vigilance & Inhibition	Negativity / pessimism Emotional inhibition Unrelenting standards Punitiveness

As in Beck's theory, early maladaptive schemas result from an interaction between the child's innate temperament and dysfunctional experiences with parents, siblings, and peers during the first few years of life. Young (1999) states that,

...“rather than resulting from isolated traumatic events, most schemas are probably caused by ongoing patterns of everyday noxious experiences with family members and peers, which cumulatively strengthen the schema.” (Young, 1999, p11).

Young therefore, assumes that the aetiology of EMS results from ‘toxic’ interpersonal experiences with parents and peers. Once formed, these EMS represent an established and rigid prototype of how one should interact with other individuals. Early maladaptive schemas, then, represent pathological prototypical patterns of interacting with others.

2.2.3 Measurement of Early Maladaptive Schemas:

The Young Schema Questionnaires

The Young Schema Questionnaire – Long Form (YSQ-LF, Young, 1999) was developed as a method of identifying EMS in clinical practice. Initially, the conceptualisation of Young’s schema theory consisted of 16 EMS, ‘rationally’ developed by Young on the basis of clinical observation (Young, 1999). The YSQ-LF is a 205-item self-report inventory designed to measure these 16 EMS (the number of items used to measure each schema varies with each sub-scale and ranges from 9 to 18). These 16 EMS are listed in the first column of Table 2.5.

A series of three studies by Schmidt, et al. (1995) represent the first attempts to develop and explore the psychometric properties of the Young Schema Questionnaire. These studies found evidence for the existence of 13 EMS in a student sample, and 15

EMS in a patient sample, leading to the deletion from the conceptualisation of the social undesirability schema (Table 2.5). A later factor analytical study, using an Australian clinical population, found further evidence for the existence of 16 schemas, including 15 of the original scales proposed by Young (Lee, Taylor & Dunn, 1999). Both these studies lend support for the existence of the set of EMS proposed by Young (1999).

Table 2.5: Different EMS Conceptualisations

16 EMS conceptualisation (Young, 1991)	15 EMS conceptualisation (Young, 1994)	18 EMS conceptualisation (Young, 1999)
1. Abandonment	1. Abandonment	1. Abandonment / instability
2. Mistrust / abuse	2. Mistrust / abuse	2. Mistrust / abuse
3. Emotional deprivation	3. Emotional deprivation	3. Emotional deprivation
4. Defectiveness / shame	4. Defectiveness	4. Defectiveness / shame
5. Social isolation / alienation	5. Social isolation / alienation	5. Social isolation / alienation
6. Dependence / incompetence	6. Dependence / incompetence	6. Dependence / incompetence
7. Vulnerability to harm / illness	7. Vulnerability	7. Vulnerability to harm / illness
8. Enmeshment / undeveloped self	8. Enmeshment	8. Enmeshment / undeveloped self
9. Failure	9. Failure to achieve	9. Failure
10. Entitlement	10. Entitlement	10. Entitlement / grandiosity
11. Insufficient self-control / self-discipline	11. Insufficient self-control	11. Insufficient self-control / self-discipline
12. Subjugation	12. Subjugation	12. Subjugation
13. Self-sacrifice	13. Self-sacrifice	13. Self-sacrifice
*	*	14. Approval-seeking / recognition-seeking
*	*	15. Negativity / pessimism
14. Emotional inhibition	14. Emotional inhibition	16. Emotional inhibition
15. Unrelenting standards	15. Unrelenting standards	17. Unrelenting standards
*	*	18. Punitiveness
16. **Social undesirability	*	*

Note. The 1991 EMS represent the initial conceptualisation by Young. These are also the 16 EMS measured by the Young Schema Questionnaire-Long Form. The 15 EMS conceptualisation represents the schemas measured by the Young Schema Questionnaire-Short Form. An “ * ” means that the corresponding schema did/does not exist for that particular conceptualisation. ** The ‘social undesirability’ schema was removed from subsequent schema conceptualisations following investigation conducted by Schmidt et al. (1995).

In a revision of his schema classification, Young included 3 new EMS not previously identified (approval-seeking / recognition-seeking; negativity / pessimism; and punitiveness – numbers 14, 15 & 18 respectively in the 1999 conceptualisation shown

in the third column of Table 2.5 above). Therefore, the new classification system consists of 18 EMS rather than 16 (Young, 1999).

In order to provide a shorter more convenient version of the initial schema questionnaire, the Young Schema Questionnaire – Short Form (YSQ-SF) was developed (Young, 1999). The YSQ-SF is a 75-item self-report inventory designed to measure 15 of the initial 16 EMS, ('social undesirability' is excluded see column 2 of Table 2.5. The short form consists of 15 sub-scales, each consisting of 5 items designed to capture each of the 15 hypothesised EMS. The short form allows not only a more rapid administration, making it preferable for research purposes, but it is also more factorially pure. This is because the short form contains the 5 highest loading items for each of the schema sub-scales in the two prior research studies (Schmidt et al. 1995; Lee et al. 1999).

Moreover, preliminary evidence exists that indicates that the psychometric properties of the long and short forms of the Young Schema Questionnaire (YSQ) appear comparable. Waller, Meyer & Ohanian (2001) demonstrated that the 2 forms had similar levels of internal consistency, parallel forms of reliability and discriminant validity, and that their levels of clinical utility were broadly comparable in a sample of bulimic women. They concluded that their findings support the use of the more convenient 75-item short version of the questionnaire in clinical and research settings.

In a study of 69 heterogeneous psychiatric outpatients designed to investigate how well each version predicts psychopathology, Stopa, Thorne, Waters & Preston (2001) also found that the two versions of the YSQ have similar levels of reliability and

validity. They found both versions of the YSQ to be modest predictors of psychopathology scores and, although each version produced slightly different patterns of predictions, there was overlap between the predicted schemas in each version of the YSQ. They concluded that the short form can be used with reasonable confidence in both clinical and empirical endeavours.

2.2.4 Schema Theory and Narcissism

There has been recent interest in using Young's schema theory to reconceptualise a number of chronic psychological conditions (Stopa, et al. 2001; Waller, et al. 2001; Petrocelli, Glaser, Calhoun & Cambell, 2001). Young has also characterised a number of personality disorders in terms of his EMS. Of interest to the current discussion, Young and Flanagan (1998) have outlined a schema-focussed conceptualisation of narcissism. Based on clinical observations and experience in dealing with narcissistic individuals they propose that the central operating schemas in narcissistic personality disorder (NPD) are 'entitlement', 'emotional deprivation', and 'defectiveness'.

The 'entitlement' schema manifests itself in behaviours such as insisting that one should be able to do, or have, anything one wants, regardless of consequences or cost to others. Individuals with this schema are exploitative and controlling of others. Cognitive processes include ongoing thoughts about how special one is, fantasising about acquisitions and achievements, expectations that one should be treated with special attention and consideration, and that the rules that govern 'ordinary' individuals do not apply to them in the same fashion as they do to everybody else

(Young & Flanagan, 1998). These processes are also encapsulated in the DSM-IV diagnostic criteria for narcissistic personality disorder (APA, 1994), which include, among other criteria, the belief that one is special, a sense of entitlement, and a grandiose sense of self-importance.

The ‘emotional deprivation’ schema is stated to interfere with the individual’s ability to experience intimacy, love, and acceptance. Cognitive indicators include individuals holding exaggerated beliefs that they are not being cared for and understood appropriately, that they are not receiving sufficient attention, and that others will not be willing to support them emotionally (Young & Flanagan, 1998).

‘Defectiveness’ involves the belief that one is somehow inferior and unlovable to others. This manifests in feelings of shame and humiliation as individuals believe that they are intrinsically flawed. Young & Flanagan (1998) suggest that behaviourally, individuals with a ‘defectiveness’ schema do not allow others to get close to them for fear of being exposed and humiliated. They may also engage in compensatory efforts to make themselves more desirable, such as engaging in meticulous grooming, seeking high achievement and employing flattery. Cognitively, it is suggested that individuals with a ‘defectiveness’ schema engage in constant monitoring of their performance, constantly compare themselves to others, and are preoccupied with, and envy, what others have. The operation of this schema would be considered typical within the context of covert narcissism, (see Chapter 1). To illustrate, the covert narcissist is characterised by sensitivity, anxiety and insecurity, frequently surprising others with their grandiose fantasies, only upon close scrutiny. Within this context it

is more clearly understood how a seemingly contradictory ‘defectiveness’ belief can be operative in a narcissistic individual.

Young and Flanagan (1998) also suggested a number of ‘secondary’ schemas which they have observed to appear in the narcissistic profile including; ‘approval-seeking’, ‘unrelenting standards’, ‘subjugation’ and ‘mistrust’. ‘Approval-seeking’ manifests itself in an exaggerated focus on social status, physical appearance, and material wealth. Individuals tend to be focussed on ‘fitting in’, at the expense of developing a secure and authentic sense of self. The self esteem of such individuals is dependent, in large part, on the reactions of others rather than on their own natural inclinations (Young, 1999). The ‘unrelenting standards’ schema refers to the narcissistic tendency to strive towards achieving and maintaining high, perfectionistic standards of performance. The underlying belief is such that one must strive to meet very high internalised standards of behaviour and performance, and generally to avoid criticism from others (Young, 1999). Young and Flanagan (1998) also hypothesise that narcissistic individuals frequently develop an ‘unrelenting standards’ schema as a compensatory strategy against the core ‘defectiveness’ schema of narcissism.

Subjugation involves the excessive surrendering of control over one’s behaviour, emotional expression, and decisions to others, especially to those in authority. The reason for this subjugation is hypothesised to be the individual’s fear of retaliation or abandonment. Again, this is conceivable within the context of covert narcissism. As subjugation frequently involves the chronic suppression of anger against those perceived to be in control, the subjugation schema is said to be reflective of “resentful compliance for fear of rejection” (Young & Flanagan, 1998, p245). The ‘mistrust’

schema refers to the expectation that others will hurt, manipulate, cheat, lie, or somehow take advantage of them. Perceived deception or betrayal can also lead to outbursts of rage or retaliatory responses on behalf of the individual with a ‘mistrust’ schema.

In an attempt to assist clinicians with the treatment of this and other refractory personality disorders, Young & Flanagan (1998) have elaborated a clear conceptualisation of narcissism. It must be noted however, that their conceptualisation remains, at this stage, a theoretical and hypothetical one based almost entirely on clinical observation. In order to be able to reliably treat narcissistic and other personality disordered individuals, it would be useful to formulate an empirically based formulation of narcissism and other personality disorders. In this fashion, it would be possible to move beyond clinical speculation and establish the actual schema conceptualisation underlying narcissism and other personality disorders. It is the intention of the first study reported in this thesis to empirically explore the EMS underlying both narcissism and psychopathy. It would be expected that if psychopathy and narcissism are separate and distinct constructs, they would be characterised, at least to some extent, by distinct sets of EMS. Given the degree of conceptual overlap between the two disorders however, it would be expected that they share a number of core schemas reflecting, for example, the overlapping sense of entitlement present in both overt narcissism and primary psychopathy.

2.2.5 Conclusions

In outlining Young's Schema Theory (Young, 1999) it was the intended purpose to demonstrate how it may be usefully employed as a cognitive-interpersonal characterisation of personality pathology. Young (1999) states that schema theory is not intended as a comprehensive theory of personality pathology, but rather as a "convenient clinical heuristic" (Segal, 1988). However, since its inception, schema theory has been increasingly utilised in not only clinical practice but also empirical research (Stopa et al. 2001; Waller et al. 2001; Petrocelli et al. 2001). As such, it is suggested that schema theory represents an increasingly convenient empirical, as well as clinical, heuristic with a wide range of applications into varied investigations of chronic psychological disorders.

Young and Flanagan (1998) have made a number of specific predictions about EMS and narcissism. Specifically, that overt narcissism is associated with the following *central* EMS: 'entitlement', 'emotional deprivation', and 'defectiveness'. Furthermore, Young and Flanagan hypothesise that overt narcissism is associated with a number of *secondary* EMS: 'approval-seeking', 'unrelenting standards', 'subjugation', and 'mistrust-abuse'. These hypotheses are tested in the study presented in Chapter 3 of this thesis.

Young and Flanagan (1998) make no specific hypotheses about EMS and psychopathy/APD, but it is of interest to the current discussion to see if specific EMS associated with narcissism, characterise APD/psychopathy.

CHAPTER 3

Psychopathy and Narcissism: A Characterisation in Terms of Early Maladaptive Schemas

The personality disorders have long been considered refractory to any kind of psychological intervention (Beck, et al. 1990; APA, 1994; Young, 1999; Beck, 1999). Two of the most common personality disorders are antisocial personality disorder / psychopathy and narcissism (Beck et al. 1990; Hare, 1996; Young & Flanagan, 1998; Ronningstam, 1998; Barlow & Durand, 1998; Beck, 1999). Research on both psychopathy and narcissism has proliferated during the past few decades, and, although these endeavours have progressed relatively independently of one another, a significant amount of overlap between the two disorders has been identified (Hart & Hare, 1998).

A number of authors have commented on the *theoretical* overlap between psychopathy and narcissism (McKay, 1986; Bursten, 1989; Hart & Hare, 1998). Stone (1993) has observed that all authors on psychopathy have incorporated traditional narcissistic traits in their descriptions of the psychopathy construct. Chief among these descriptions have been characteristics such as egocentricity, grandiosity, and manipulateness, all of which are core narcissistic traits, and the implication being that all psychopathic individuals are also narcissistic.

Kernberg (1970, 1989), working from an object relations framework, has noted the parallels between his conceptualisation of narcissism and the manifestations of

psychopathy. Kernberg noted that the two disorders manifest with the same 'general' constellation of traits, and further, that "...the antisocial personality may be considered a subgroup of the narcissistic personality" (Kernberg, 1970, p.5). Kernberg further states that 'malignant narcissism' (which may be understood for the current discussion as overt narcissism) is even closer conceptually related to psychopathy.

Kernberg (1970) goes on to establish clear differences between psychopathy and narcissism. For instance, psychopaths are stated as having a total incapacity for remorse, loyalty and concern for others. Furthermore, psychopaths are stated as exhibiting an incapacity to see a moral dimension in others, lack temporal awareness, and an ability to set future goals, whereas narcissists do not generally present with these deficits.

Meloy (1988), also working from an object relations perspective, but focussing on psychopathy, has also considered the association between the two disorders. Meloy views psychopathy as a pathological developmental process where the core characteristic appears to be a "...benign detachment [in concert with] ...aggressively pursued, sadistically toned attempts to bond" (p.59). In discussing the overlap between psychopathy and narcissism, Meloy states that clinical evidence suggests the conclusion that the psychopathic personality represents one subtype of narcissistic personality disorder, "...albeit an extreme and dangerous variant" (p.7). In a similar fashion to Kernberg, however, Meloy also notes differences between the two disorders. He notes that psychopathy is characterised by prominent aggression, sadism and a tendency toward paranoid ideation (rather than depression) during stressful situations, while narcissism is not associated with this pattern of symptoms.

Psychopathy and narcissism also share a significant amount of empirical (Young & Flanagan, 1998; Beck et al. 1990) overlap. For instance, as outlined in Chapter 1, in examinations of the internal structure of psychopathy, two clusters of symptoms inevitably emerge in factor analyses; one comprising *interpersonal* and *affective* symptoms such as grandiosity, and remorsefulness; and the other comprising *behavioural* symptoms such as irresponsibility and antisociality (Harpur, et al. 1989; Levenson et al. 1995). This first cluster is conceptually very similar to narcissism, incorporating traditionally narcissistic characteristics such as grandiosity, and lack of empathy as representative of psychopathy. This has led some authors to further espouse the view that narcissism is a basic factor underlying at least half of all psychopathic symptoms.

It is evident from the theoretical and empirical overlap reported in the literature, that a diagnostic confusion exists between the psychopathy and narcissism constructs. In attempting to clarify this confusion, it would be desirable to investigate the psychological processes underpinning each of the psychopathy and narcissism constructs. Young's concept of the early maladaptive schema provides a useful mechanism for the operationalising of these psychological processes.

The current study sought to investigate the relationship between psychopathy and narcissism in 'cognitive-interpersonal' terms utilising Young's schema theory (Young, 1999). This theory maintains that cognitive structures known as early maladaptive schemas (EMS) underlie all personality pathology. Early maladaptive schemas are conceptualised as extremely stable and enduring interpersonal themes, which develop during childhood, are elaborated throughout one's lifetime, and are

dysfunctional to a significant degree. Consequently, a personality disorder may be conceptualised in terms of the EMS which define (or are operative in) it.

Consistent with the literature review presented in the first two chapters of this thesis, the question of whether psychopathy and narcissism are distinct entities, or whether psychopathy represents a sub-set of narcissism was addressed. If psychopathy were a sub-set of narcissism it is hypothesised that this would be reflected in terms of the EMS which characterise each of these disorders. That is, one would expect narcissism to be related to a larger, more inclusive set of EMS than psychopathy, which should itself be related to a sub-set of the EMS which characterise narcissism.

In summary, this study aims to test a number of hypotheses:

Hypothesis I: That the schema questionnaire has a five-dimensional hierarchical structure.

Hypothesis II: That overt narcissism is associated with those EMS stated as central ('entitlement', 'emotional deprivation', and 'defectiveness'), and secondary ('approval-seeking', 'unrelenting standards', 'subjugation', and 'mistrust-abuse') by Young and Flanagan (1998).

Hypothesis III: That psychopathy and narcissism are discriminable by utilising an EMS conceptualisation.

In testing these hypotheses, a trait/dimensional model of personality is used (see Chapters 1 and 2), and hence these hypotheses are tested within a normal population. This is appropriate given the recent resurgence in interest in the sub-clinical manifestations of the constructs under investigation in this study (psychopathy and narcissism), and the subsequent development of appropriate measures to adequately operationalise these constructs. As mentioned in Chapter 1, the adoption of a dimensional model of personality necessarily reflects the assumption that all individuals possess these traits to varying degrees, hence it is expected that the psychopathy and narcissism constructs will be observable, to varying degrees, within a normal population.

3.1 METHOD

3.1.1 Participants and procedure

A total of 291 individuals participated in this study. The bulk of the participants were first year psychology students at the Australian National University (ANU) who completed questionnaires during a scheduled laboratory class, as part of their course requirement in personality psychology. The remaining participants were recruited from various other undergraduate psychology courses at the ANU, and from the general public of the Australian Capital Territory (ACT). These latter participants were volunteers who completed the questionnaire in their own time, and returned it to the author. Eighty-nine (30.6 %) of the participants were male, and 202 (69.4 %) were

female. The mean age of the participants was 23.08 years, (SD=6.92 years, skewness=2.41, kurtosis=6.86) and the range was 17 to 64 years.

3.1.2 Measures

The questionnaire consisted of four measures: The Young Schema Questionnaire – Short Form (YSQ-SF, see APPENDIX II; Young, 1999), Levenson’s Self Report Psychopathy Scale (LSRP, see APPENDIX III; Levenson, et al. 1995; Lynam, et al. 1999), the Narcissistic Personality Inventory (NPI, see APPENDIX IV; Raskin and Hall, 1979), and the Hypersensitive Narcism Scale (HSNS, see APPENDIX V; Hendin and Cheek, 1997). Each of these is described in detail below.

3.1.3 Measure of Early Maladaptive Schemas

Young Schema Questionnaire – Short Form (YSQ-SF)

Early maladaptive schemas were measured using the YSQ-SF. The YSQ-SF is a 75-item self-report inventory designed to measure 15 EMS. As the YSQ–SF only measures 15 of the presently identified 18 EMS, modifications to the scale were required in order to allow for the measurement of at least two of the three more recently identified EMS. These two new EMS, ‘punitiveness’ and ‘approval-seeking / recognition-seeking’, were considered important aspects of the constructs under investigation (psychopathy and narcissism) and so items for their measurement were developed. The ‘negativity / pessimism’ EMS was not considered an important aspect of psychopathy or narcissism (Beck et al. 1990; Young, 1999) and so was not measured in this study.

Modifications to the YSQ-SF

To yield 5 items to measure each of the two new schemas, 12 items were developed for each of them by the author, in consultation with the thesis supervisor. These items were based on the schema descriptions provided by Young (1999), and were worded in accordance with those items in existence for the currently measured 16 EMS's. These were then handed to a sample (n=29) of postgraduate clinical psychology students at the ANU, who were asked to indicate which five items they thought best captured the description of each EMS provided by Young. A total of 18 responses were received.

Endorsement rates for each item were collated and analysed. These 10 items (5 items for each of the punitiveness and attention / recognition-seeking EMS's) were then added to the end of the YSQ – SF for inclusion in the study. This meant that the final, revised YSQ – SF, consisted of an 85-item self-report inventory designed to measure the 17 relevant EMS (see APPENDIX II).

Response options for each item on the YSQ-SF consists of a 6-point scale ranging from 1 “completely untrue of me” to 6 “describes me perfectly”. Higher scores on each EMS sub-scale indicates a greater degree of that EMS operating / existing in the individual.

3.1.4 Measure of Primary and Secondary Psychopathy

Levenson Self-Report Psychopathy Scale (LSRP).

Psychopathy, primary psychopathy and secondary psychopathy were measured using the LSRP. The LSRP is a 26-item self-report inventory answered on a 4-point scale from 1 (strongly disagree) to 4 (strongly agree) (Levenson et al, 1995; Lynam et al. 1999; see Appendix III). The inventory is designed to measure both hypothesised domains (primary and secondary; Hare, 1999) of psychopathy. The first domain (hereafter referred to as P1) refers to a callous, manipulative, and selfish use of others, and contains most of the personality characteristics associated with the traditional conceptualisation of psychopathy. The second domain (hereafter referred to as P2) refers to social deviance, as manifested by impulsivity and poor behavioural controls. The psychopathy score is obtained by adding the scores on each of the primary and secondary psychopathy sub-scales. Higher total scores on the LSRP represent a greater degree of psychopathy. Similarly, higher scores on each sub-scale (primary and secondary) represent a greater degree of primary and/or secondary psychopathy respectively.

Levenson et al. (1995) reports high internal consistency for these scales with the reliability coefficients for the primary and secondary psychopathy scales as .83 and .63 respectively. Lynam et al. (1999) also reports acceptable reliability (internal consistency) for the two scales with Cronbach alpha coefficients of .84 and .68 for primary and secondary psychopathy respectively. The correlation between the scale scores in the Lynam et al. (1999) study was moderate ($r=.43$). Brinkley, et al. (2001) reports three separate Cronbach alpha coefficients for each of their samples; total

sample, Caucasian participants and African-American participants. The alpha coefficients for total LSRP, primary and secondary psychopathy for each of the above samples respectively were: for the total sample .85, .83 and .69; for the Caucasian sample .88, .85 and .74; and, finally for the African-American sample, .83, .80 and .64.

3.1.5 Measures of Overt and Covert Narcissism

Narcissistic Personality Inventory (NPI).

Overt narcissism was measured using the NPI. The NPI is a 40-item (true / false) questionnaire designed to measure overt narcissism as conceptualised by the DSM IV definition of Narcissistic Personality Disorder (NPD; see APPENDIX IV). Higher total scores on the NPI are indicative of greater degrees of overt narcissism. Raskin and Terry report a high internal consistency for this new NPI, with alpha = .83. Hendin and Cheek (1997) also reported similar internal consistency coefficients for the 40-item NPI, with alpha reliability reported as .80 and .78 for each of the two samples.

Hypersensitive Narcissism Scale (HSNS).

Covert narcissism was measured using the HSNS. This is a 10-item measure, with alpha's for three separate samples reported as .72, .75 and .62 (Hendin and Cheek, 1997). The HSNS uses a 5-point response format ranging from 1 to 5 (1= "very uncharacteristic or untrue; strongly disagree" to 5 = "very characteristic or true;

strongly agree”). The response format of the HSNS (see APPENDIX V) was varied for administration in this study in order to keep responses in line with the other narcissism measure being used, the NPI, which was administered as a True / False scale.

3.2 RESULTS

The data analysis is reported in three sections. In the first section, a psychometric analysis of the four measures used in the study (YSQ-SF, LSRP, NPI, HSNS) is presented. As part of this section, a factor analysis, examining the factor structure of the LSRP, is also reported. The subsequent sections present the analysis relating to the main questions of the study. The second section presents a correlational analysis of the relationships between EMS, psychopathy, and overt and covert narcissism. The third section seeks to further explicate these constructs through a factor analysis of the EMS, and a subsequent correlational analysis of the relationships between the factors derived from the factor analysis, and the constructs under investigation: psychopathy, overt and covert narcissism.

3.2.1 Psychometric Analysis

Internal consistency of Early Maladaptive Schema Sub-scales

Table 3.1 below presents coefficient alpha for each of the 17 sub-scales of the YSQ. The reliability coefficients for the EMS sub-scales reported in Table 3.1 are acceptable given that the purpose of the sub-scales in this thesis is for research, rather than clinical purposes (Nunnally, 1970).

Table 3.1: *Sub-scale reliability - coefficient alpha for each early maladaptive schema sub-scale (n=291)*

Early maladaptive schema	Alpha	Number of items
1. Emotional deprivation	.87	5
2. Abandonment	.90	5
3. Mistrust / abuse	.83	5
4. Social isolation	.90	5
5. Defectiveness / shame	.92	5
6. Failure	.93	5
7. Dependence / incompetence	.75	5
8. Vulnerability to harm / illness	.78	5
9. Enmeshment / underdeveloped self	.71	5
10. Subjugation	.82	5
11. Self-sacrifice	.78	5
12. Emotional inhibition	.88	5
13. Unrelenting standards	.81	5
14. Entitlement / grandiosity	.71	5
15. Insufficient self-control / self-discipline	.88	5
16. Punitiveness	.79	5
17. Attention-seeking	.84	5

Internal Consistency of Psychopathy, Overt Narcissism, and Covert Narcissism Scales

Table 3.2 presents the alpha coefficients for the full LSRP scale, each of its' sub-scales (P1 & P2), and the NPI and HSNS scales.

Table 3.2: *Scale reliability – coefficient alpha for LSRP (full scale, P1 and P2), NPI and HSNS (n=291)*

Scale	Alpha	Number of items
LSRP (full scale)	.85	25
LSRP (P1)	.86	16
LSRP(P2)	.72	9
NPI	.83	40
HSNS	.62	10

Once again, the reliability indices reported in Table 3.2 are acceptable given that the scales are being used for research rather than clinical purposes (Nunnally, 1970). Only HSNS returned a relatively low alpha coefficient of .62. The alpha's obtained for P1 and P2 in this study compare favourably with those obtained by Levenson et al. (1995), alpha = .82 and .63 for primary and secondary psychopathy sub-scales respectively. The reliability coefficients obtained are seen as acceptable given the relatively small number of items composing the P2 (9 items) and HSNS (10 items) scales in particular. Generally, the greater the number of homogeneous items used to measure a construct, the greater coefficient alpha is likely to be (Nunnally, 1970).

Factor Analysis (LSRP)

A factor analysis was carried out on the LSRP items to test the adequacy of the previously identified two-factor structure of the LSRP scale. The LSRP data were subjected to a principle components analysis with oblimin rotation, using SPSS for Windows version 10. Examination of the eigenvalues produced (Table 3.3) and the scree plot of eigenvalues plotted against factors indicated that there were two factors with eigenvalues greater than one.

Table 3.3: *Final statistics for Rotated Factor Matrix (n=291)*

Factor	Eigenvalue	Percent of variance	Cumulative percent
1	6.09	24.36	24.36
2	2.35	9.42	33.79

From Table 3.3, the two factors account for approximately 34 percent (34%) of the variance in LSRP scores. The first factor accounted for the majority of the variance, 24 percent, with the second factor accounting for 9 percent.

The rotated component factor loadings from the pattern matrix, as set out in Table 3.4 indicate that the two factors, primary (P1) and secondary (P2), are well defined. Loading on factor 1 were the LSRP items 1 through 16. The remaining items of the LSRP, items 17 through 25, loaded onto factor 2. This would indicate that the P1 and P2 sub-scales of the LSRP each measure different factors (primary and secondary psychopathy respectively) and is in keeping with the factor structure reported by Lynam et al. (1999).

Table 3.4: *Rotated factor loading (pattern) matrix of factor 1 (P1) and factor 2 (P2) (n=291)*

LSRP item	Factor	
	Primary psychopathy (P1)	Secondary psychopathy (P2)
LSRP04	.718	
LSRP14	.692	
LSRP02	.691	
LSRP01	.643	-.127
LSRP03	.632	-.115
LSRP06	.631	
LSRP15	.624	
LSRP08	.597	
LSRP11	.570	
LSRP09	.562	
LSRP05	.515	.115
LSRP12	.485	
LSRP07	.485	
LSRP13	.469	
LSRP16	.458	.143
LSRP10	.391	
LSRP 17		.635
LSRP20		.625
LSRP23		.620
LSRP24	-.116	.600
LSRP18		.526
LSRP25		.499
LSRP19	-.113	.477
LSRP22	.220	.474
LSRP21	.317	.376

3.2.2 Correlational Analysis

The correlation matrix for the early maladaptive schemas and all constructs is presented in Table 3.5. Psychopathy was significantly correlated with both overt and covert narcissism. Primary psychopathy (P1) was significantly correlated with both covert and overt narcissism. Secondary psychopathy (P2) was significantly correlated with covert narcissism and not overt narcissism.

Table 3.5: *Pearson's correlations among early maladaptive schema sub-scales and psychopathy and narcissism constructs*

	P1	P2	Covnarc	Ovnarc	Psychopathy
Em deprivation	0.00	0.18**	0.18**	-0.09	0.09
Abandonment	0.03	0.33**	0.35**	-0.11	0.17**
Mistrust-abuse	0.24**	0.28**	0.29**	0.06	0.31**
Social isolation	0.10	0.24**	0.34**	-0.08	0.18**
Defect-shame	0.07	0.29**	0.35**	-0.16**	0.19**
Failure	0.02	0.29**	0.23**	-0.18**	0.15*
Dep-incomp	0.07	0.34**	0.34**	-0.19**	0.21**
Vulnerability	0.11	0.31**	0.30**	-0.06	0.22**
Enmeshment	0.12*	0.19**	0.27**	-0.02	0.18**
Subjugation	0.05	0.31**	0.35**	-0.25**	0.18**
Self-sacrifice	-0.11	-0.05	-0.01	0.04	-0.11
Em inhibition	0.16**	0.25**	0.36**	-0.13*	0.24**
Unrelent stds	-0.11	-0.18**	0.11	0.17**	-0.16**
Entitlement	0.37**	0.24**	0.24**	0.44**	0.39**
Insuf self-ctl	0.12*	0.52**	0.33**	0.04	0.33**
Punitiveness	0.26**	0.26**	0.30**	0.30**	0.31**
Attention seek	0.14*	0.12*	0.42**	0.16**	0.16**
P1		0.33**	0.22**	0.41**	0.90**
P2			0.39**	0.06	0.70**
Covnarc				0.12*	0.35**
Ovnarc					0.34**

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

Note. P1 = primary psychopathy; P2 = secondary psychopathy; Ovnarc = overt narcissism; Covnarc = covert narcissism; Em deprivation = emotional deprivation; Abandonment = abandonment; Mistrust-abuse = mistrust / abuse; social isolation = social isolation; Defect-shame = defectiveness / shame; failure = failure; Dep-incomp = dependence / incompetence; Vulnerability = vulnerability; Enmeshment = enmeshment; Subjugation = subjugation; Self-sacrifice = self-sacrifice; Em inhibition = emotional inhibition; Unrelent stds = unrelenting standards; Entitlement = entitlement; Insuf self-ctl = insufficient self-control; Punitiveness = punitiveness; Attention seek = attention-seeking.

Overt narcissism was significantly correlated with 9 of the 17 EMS. In order of strength of correlation, these were; ‘entitlement’, ‘insufficient self-control’, ‘subjugation’, ‘dependence / incompetence’, ‘failure’, ‘unrelenting standards’, ‘attention-seeking’, ‘defectiveness / shame’, and ‘emotional inhibition’. Covert narcissism was significantly related to all of the EMS with the exception of two; ‘self-sacrifice’ and ‘unrelenting standards’. In order of strength of correlation covert narcissism was related to the following EMS: ‘attention-seeking’, ‘emotional

inhibition', 'subjugation', 'defectiveness / shame', 'abandonment', 'dependence / incompetence', 'social isolation', 'insufficient self-control', 'punitiveness', 'vulnerability', 'mistrust / abuse', 'enmeshment', 'entitlement', 'failure', and 'emotional deprivation'.

Psychopathy was significantly correlated with 15 of the 17 EMS measured;

In order of strength of correlation these were; 'entitlement', 'insufficient self-control', 'punitiveness', 'mistrust / abuse', 'emotional inhibition', 'vulnerability', 'dependence / incompetence', 'defectiveness / shame', 'social isolation', 'enmeshment', 'subjugation', 'abandonment', 'attention-seeking', 'unrelenting standards' and 'failure'. Psychopathy was negatively correlated with 'unrelenting standards'.

When examined by each of the subscales, it was found that primary psychopathy was significantly correlated with 7 of the 17 EMS measured, in order of strength of correlation; 'entitlement', 'punitiveness', 'mistrust / abuse', 'emotional inhibition', 'attention-seeking', 'enmeshment' and 'insufficient self-control'.

Secondary psychopathy correlated with a total of 16 out of the 17 EMS. The only schema with which P2 did not correlate was 'self-sacrifice'. In order of strength of correlation P2 was significantly correlated to the following EMS; 'insufficient self-control', 'dependence / incompetence', 'abandonment', 'vulnerability', 'subjugation', 'failure', 'defectiveness / shame', 'mistrust / abuse', 'punitiveness', 'emotional inhibition', 'entitlement', 'social isolation', 'enmeshment', 'emotional deprivation', and 'unrelenting standards'. Secondary psychopathy was least correlated with 'unrelenting standards', and this correlation was in a negative direction (as was the

case with psychopathy), while all other correlations were positive. Primary psychopathy was not significantly correlated with 'unrelenting standards' as was the case with psychopathy and secondary psychopathy, however, the correlation coefficient was in a negative direction.

Table 3.6 below reveals a number of inter-correlations among the early maladaptive schema sub-scales. There were numerous correlations of .3 or greater in the correlations matrix indicating factorability of the matrix. None of the EMS sub-scales were totally independent (ie not correlating with any of the other sub-scales), and only the 'self-sacrifice' EMS did not correlate significantly with any other EMS at an $r=.3$ or greater. The next three most independent of the EMS sub-scales were the 'unrelenting standards', 'entitlement', and 'enmeshment' EMS sub-scales, each correlating with only two other EMS sub-scales at an $r=.3$ or greater.

Due to this pattern of correlations among the EMS sub-scales, it was considered appropriate to conduct a factor analysis in order to further interpret any superordinate categories of schemas which may be present, and how these may relate to the narcissism and psychopathy constructs.

Table 3.6: Pearson's correlation coefficients among early maladaptive schema sub-scales (n=291)

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Em deprivation	0.28**	0.38**	0.51**	0.44**	0.19**	0.25**	0.19**	0.08	0.31**	0.06	0.52**	0.12*	0.10	0.18**	0.19**	0.05
2. Abandonment		0.39**	0.34**	0.38**	0.37**	0.50**	0.40**	0.16**	0.52**	0.16**	0.23**	0.05	0.14*	0.21**	0.20**	0.31**
3. Mistrust-abuse			0.44**	0.34**	0.26**	0.38**	0.44**	0.18**	0.34**	0.08	0.42**	0.15**	0.25**	0.21**	0.36**	0.24**
4. Social isolation				0.60**	0.28**	0.33**	0.28**	0.28**	0.45**	0.06	0.53**	0.05	0.18**	0.31**	0.25**	0.21**
5. Defect-shame					0.53**	0.41**	0.39**	0.26**	0.58**	0.02	0.49**	0.06	0.09	0.30**	0.22**	0.34**
6. Failure						0.45**	0.39**	0.20**	0.51**	0.09	0.25**	-0.04	0.03	0.32**	0.08	0.30**
7. Dep-incom							0.42**	0.32**	0.55**	0.05	0.25**	0.00	0.10	0.35**	0.14*	0.34**
8. Vulnerability								0.13*	0.31**	0.04	0.29**	0.11	0.21**	0.10	0.26**	0.25**
9. Enmeshment									0.37**	0.05	0.20**	0.13*	0.11	0.27**	0.17**	0.23**
10. Subjugation										0.20**	0.41**	0.03	0.03	0.35**	0.12*	0.36**
11. Self-sacrifice												-0.03	0.28**	0.09	0.09	0.05
12. Em inhibition													0.03	0.16**	0.21**	0.29**
13. Unrelent stds														0.28**	-0.13*	0.36**
14. Entitlement															0.24**	0.45**
15. Insuf self-ctl																0.16**
16. Punitiveness																
17. Attention seek																

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

Note. Em deprivation = emotional deprivation; Abandonment = abandonment; Mistrust-abuse = mistrust / abuse; social isolation = social isolation; Defect-shame = defectiveness / shame; failure = failure; Dep-incomp = dependence / incompetence; Vulnerability = vulnerability; Enmeshment = enmeshment; Subjugation = subjugation; Self-sacrifice = self-sacrifice; Em inhibition = emotional inhibition; Unrelent stds = unrelenting standards; Entitlement = entitlement; Insuf self-ctl = insufficient self-control; Punitiveness = punitiveness; Attention seek = attention-seeking.

3.2.3 Factor Analysis of the YSQ-SF

Due to the high degree of inter-relatedness among the EMS sub-scales it was considered appropriate to conduct a factor analysis. The Kaiser-Meyer-Olkin (KMO) test of sampling adequacy (KMO=.845) was well above the value of .6 required for a good factor analysis (Tabachnick & Fidell, 1996). Bartlett's test of sphericity was also significant (1636.814, $p < .001$).

The EMS data were subjected to a principle components analysis with oblimin rotation, using SPSS for Windows version 10. Examination of the eigenvalues produced (Table 3.7) and the scree plot of eigenvalues plotted against factors indicate that there were two factors with eigenvalues greater than one.

Table 3.7: *Final statistics for Rotated Factor Matrix (n=291)*

Factor	Eigenvalue	Percent of variance	Cumulative percent
1	4.719	27.759	27.719
2	1.223	7.193	34.952

From Table 3.7, the two factors account for approximately 35 percent of the variance in EMS scores. The first factor accounted for the majority of the variance, 28 percent, with the second factor accounting for 7 percent.

The rotated component factor loadings from the pattern matrix in Table 2.8 indicate that the two factors are well defined. Loading on factor 1 were the following EMS;

‘subjugation’, ‘defectiveness / shame’, ‘dependence / incompetence’, ‘failure’, ‘social isolation’, ‘abandonment’, ‘emotional inhibition’, ‘emotional deprivation’, ‘mistrust / abuse’, ‘vulnerability’, ‘insufficient self-control’, and ‘enmeshment’. Loading on factor 2 were the ‘punitiveness’, ‘entitlement’, ‘unrelenting standards’ and ‘attention seeking’ EMS.

Table 3.8: *Rotated factor loading (pattern) matrix of factor 1 (F1) and factor 2 (F2) (n=291)*

EMS	Factor	
	Factor 1	Factor 2
Subjugation	.821	-.154
Defect-shame	.781	
Dep-incomp	.687	
Failure	.665	-.172
Social isolation	.641	
Abandonment	.585	
Em inhibition	.542	
Em deprivation	.475	
Mistrust-abuse	.474	.275
Vulnerability	.462	.156
Insuf self-ctl	.445	
Enmeshment	.352	
Punitiveness		.683
Entitlement		.603
Unrelent stds	-.125	.588
Attention seek	.314	.337
Self-sacrifice		.169

Note. Em deprivation = emotional deprivation; Abandonment = abandonment; Mistrust-abuse = mistrust / abuse; social isolation = social isolation; Defect-shame = defectiveness / shame; failure = failure; Dep-incomp = dependence / incompetence; Vulnerability = vulnerability; Enmeshment = enmeshment; Subjugation = subjugation; Self-sacrifice = self-sacrifice; Em inhibition = emotional inhibition; Unrelent stds = unrelenting standards; Entitlement = entitlement; Insuf self-ctl = insufficient self-control; Punitiveness = punitiveness; Attention seek = attention-seeking.

The ‘attention-seeking’ EMS appears to be a complex variable, loading on both factors 1 and 2 with fairly low loadings. While the ‘enmeshment’ variable only loaded onto factor 1, the loading was small. Taking these data into account, the solution is best interpreted by not including either of the ‘enmeshment’ or ‘attention-seeking’ EMS. This leaves a two-factor solution with factor 1 consisting of eleven EMS, and factor two comprising 3. Factor 1 was labeled internal vulnerability, as the sub-scales

loading onto it reflect an internalised vulnerability in interpersonal interactions. Factor 2 was labeled narcissistic aggressive, as the remaining EMS sub-scales loading onto this factor intimate quite outwardly hostile and belligerent forms of interpersonal interaction.

The factor scores were then saved as variables using the regression method. These variables were utilised to compute a factor score correlation matrix including the psychopathy and narcissism constructs, and this is displayed in Table 3.9.

Table 3.9: *Factor score correlation matrix (n=291)*

	Factor 1 <i>(Internal vulnerability)</i>	Factor 2 <i>(Narcissistic aggressive)</i>
Psychopathy	.314 **	.289 **
P1	.147 *	.263 **
P2	.443 **	.198 **
Overt narcissism	-.158 **	.369 **
Covert narcissism	.488 *	.368 **
F2	.412 **	

Note. P1 = primary psychopathy; P2 = secondary psychopathy; F2 = factor 2.

Table 3.9 demonstrates that psychopathy is correlated with both factors 1 and factor 2. Primary psychopathy is more highly correlated with factor 2 although significantly correlated with factor 1. Secondary psychopathy demonstrates a greater correlation with factor 1 than with factor 2.

Overt narcissism is a low correlate of factor 1, and this relationship is a negative one. Overt narcissism is positively correlated with factor 2. Covert narcissism is a correlate of both factor one and factor 2, though its correlation with factor 2 is low while that with factor one is moderate.

The two factors are moderately correlated with each other. This could perhaps at least partially be due to the complex ‘attention-seeking’ variable which loads onto both factors.

3.3 DISCUSSION

The aim of the present study was to address the diagnostic uncertainty between psychopathy and narcissism. In so doing, a number of hypotheses were developed, based on the schema theory of personality disorders put forward by Young (1999). On the basis of the current analysis, hypothesis I was not supported, with the hierarchical structure of the schema questionnaire consisting of two superordinate factors, rather than the previously observed 5. Hypothesis II was partially supported by the results of the current study, with all the EMS hypothesised as being associated with overt narcissism by Young and Flanagan (1998) displaying associations with the NPI, except for ‘emotional deprivation (hypothesised as being a central EMS in narcissism) and ‘mistrust-abuse’ (hypothesised as being a secondary EMS in narcissism). The current data also support the use of an EMS conceptualisation in discriminating psychopathy and narcissism.

The data reported in the current study provide support for both the primary / secondary psychopathy, and overt / covert narcissism distinctions. Moreover, the results indicate that a number of overlaps exists between the psychopathy and narcissism constructs when viewed from an early maladaptive schema characterisation. Notably, primary psychopathy appears to be related to overt narcissism, while secondary psychopathy shares a number of EMS with covert

narcissism. Furthermore, the current results provide preliminary support for the notion that psychopathy represents a sub-set of the higher order construct of narcissism, with narcissism exhibiting relationships with EMS above and beyond those it shares with psychopathy.

3.3.1 Psychometric Issues

The results of the current study indicate that the measures utilised to operationalise the constructs of interest possess appropriate psychometric properties to allow for useful interpretation of the results of further analysis. The 17 sub-scales of the YSQ-SF all demonstrated acceptable internal consistency with coefficients alpha ranging from .71 to .93. The LSRP and its sub-scales for primary and secondary psychopathy also demonstrated acceptable internal consistency measures with alpha's of .85, .86 and .72 respectively. This is in keeping with earlier reports of internal consistency for the LSRP (Levenson, Kiehl & Fitzpatrick, 1995; Lynam, Whiteside & Jones, 1999; Ferrigan, Valentiner & Berman, 2000).

Similarly, the NPI and HSNS also demonstrated acceptable internal consistency with coefficient alpha's of .83 and .62 respectively. The alpha for the HSNS is lower than that obtained by Hendin and Cheek (1997) but is still acceptable given the low number of items (10) composing the scale, and its' use for empirical purposes (Nunally, 1970). The alpha coefficient of .83 obtained for the NPI is acceptable and compares favourably with previous investigations (Emmons, 1987).

The factor analysis of the LSRP measure of primary and secondary psychopathy confirmed the previously observed two-factor structure. In keeping with earlier reports of the factor structure of psychopathy (Harpur et al. 1989), and prior investigations into the LSRP (Levenson et al. 1995; Lynam et al. 1999) items 1 – 16 loaded on the first factor and items 17 – 25 onto the second factor. This suggests that the two-factor structure reported using the PCL-R remains robust when applied to the general population.

3.3.2 Relationships Between Psychopathy, Narcissism, and the YSQ-SF

Primary psychopathy was correlated with both covert and overt narcissism.

Secondary psychopathy was correlated only with covert narcissism. These observations are in keeping with the hypothesis that overt narcissism is a significant component of primary psychopathy. This is borne out by the correlation between overt narcissism and primary psychopathy which was a moderate one ($r=.41$), while the correlation between covert narcissism and primary psychopathy was only small ($r=.22$).

The mild to moderate relationship between covert narcissism and secondary psychopathy ($r=.39$) is a new finding, and one which is in keeping with prior observations that covert narcissism is associated with a sense of vulnerability / sensitivity to life's traumas, including feelings of anxiety, a lack of fulfilment and pessimism (Wink, 1991). Secondary psychopathy represents the dissocial / criminal aspect of the psychopathy construct (Harpur et al., 1989; Harpur et al., 1994). As such, secondary psychopaths tend to lack the core personality traits of the primary

psychopath and are more likely to experience remorse for their antisocial acts. This is in keeping with the presumed vulnerability and sensitivity to negative emotional states and life's trauma's experienced by covert narcissistic individuals.

Further evidence for the association between secondary psychopathy and covert narcissism, was obtained from the observed correlations between these constructs and the early maladaptive schemas (EMS). Secondary psychopathy was correlated with 16 of the total 17 EMS, while covert narcissism was significantly related to 15 of these. (with the exception of the 'self-sacrifice' and 'unrelenting standards' EMS). The size of the correlations are roughly equivalent for the related EMS between secondary psychopathy and covert narcissism. Two notable exceptions are the 'insufficient self-control' and 'attention-seeking' EMS. The 'insufficient self-control' schema is more strongly related to secondary psychopathy ($r=.52$), than to covert narcissism ($r=.33$). This suggests that this is one way in which secondary psychopathy can be discriminated from covert narcissism and is related to the core features of criminality and antisocial behaviour. The 'attention-seeking' schema on the other hand, is more strongly related with the covert narcissism construct ($r=.42$), than with the secondary psychopathy construct ($r=.12$). Again, this is in keeping with the traditionally observed narcissistic tendency towards the need for admiration and attention, and the covert narcissists sensitivity and vulnerability to this need (Wink 1991).

Of interest is the pattern of relationships found for the primary psychopathy and overt narcissism constructs. While each of these constructs was only correlated with a small number of EMS – primary psychopathy to seven EMS, and overt narcissism to nine EMS – the correlations were, for the most part, with different EMS. Furthermore, five

of the nine EMS which were significantly correlated with overt narcissism were in a negative direction, while all the EMS correlated with primary psychopathy were in a positive direction.

Of note is the observation that those EMS which were positively correlated with overt narcissism ('attention-seeking', 'punitiveness', and 'entitlement') were also positively correlated with primary psychopathy – with the exception of the 'unrelenting standards' EMS which was only minimally correlated with overt narcissism and not related at all with primary psychopathy. Thus, this leaves primary psychopathy and overt narcissism sharing three EMS; 'entitlement', 'punitiveness', and 'attention-seeking'. This lends some support to the notion that overt narcissism forms a component of primary psychopathy.

Of the EMS negatively correlated with overt narcissism ('defectiveness / shame', 'failure', 'dependence / incompetence', 'subjugation', and 'emotional inhibition'), only the 'emotional inhibition' EMS was also related to primary psychopathy, and this was in a positive direction ($r=.16$). The five EMS negatively correlated with overt narcissism demonstrated only mild correlations, with correlations for the above-mentioned EMS being $r=-.16$, $-.18$, $-.19$, $-.25$, and $-.13$ respectively. This pattern of correlations is in keeping with the hypothesis that psychopathy represents a sub-component of narcissism, as one would expect overt narcissism to have other features above and beyond those demonstrated by, and shared with, psychopathy.

These observed pattern of correlations between overt narcissism and the EMS subscales, and covert narcissism and the EMS, makes sense in the context of the overt / covert narcissism distinction. Given that covert narcissists have been characterised by

a sense of vulnerability / sensitivity to life's traumas, feelings of anxiety, a lack of fulfilment and pessimism (Wink, 1991), it would be expected that they would demonstrate a tendency towards a wide range of interpersonal and cognitive deficits, as demonstrated by the correlations between the HSNS and most of the EMS (Young, 1999).

Conversely, overt narcissism was significantly related to only a subset of these EMS (9), and the correlation with five out of these nine was, as mentioned previously, in a negative direction. The schema's with which overt and covert narcissism demonstrated a different direction of relatedness are 'defectiveness / shame', 'failure', 'dependence / incompetence', 'subjugation', and 'emotional inhibition'. Once again, this pattern of correlations is consistent with the distinction between overt and covert narcissism advanced by Wink (1991). Wink (1991) identified the overt narcissist as an individual characterised by arrogant self-assurance, self-confidence and displays of superiority. These characteristics are inconsistent with schemas such as 'defectiveness / shame', 'failure', 'dependence / incompetence', 'subjugation', and 'emotional inhibition' and hence it is not surprising that overt narcissism is negatively correlated with such EMS. Conversely, covert narcissists are described as harbouring suppressed ideas of grandeur while manifesting a lack of self-confidence and initiative. This description is consistent with the observed positive relationship in the current study between covert narcissism and the above-mentioned EMS. Therefore, in conclusion, the data from this study lend further support to the overt / covert narcissism distinction.

3.3.3 Factor Analysis of the YSQ-SF

Using a .4 factor loading as the minimum requirement for a sub-scale to load onto a factor, the ‘enmeshment’, ‘self-sacrifice’ and ‘attentions-seeking’ EMS were not observed to load on either of the two extracted factors in the factor analysis of the YSQ-SF. Furthermore, the ‘attention-seeking’ sub-scale was observed to be a complex variable, loading (minimally) onto both factors (see Table 2.8). The remaining factor solution revealed two distinct factors, with factor one consisting of eleven EMS, and factor two comprising three. Factor one was labelled *internal vulnerability* and consisted of the following EMS in order of strength of factor loading: ‘subjugation’, ‘defectiveness / shame’, ‘dependence / incompetence’, ‘failure’, ‘social isolation’, ‘abandonment’, ‘emotional inhibition’, ‘emotional deprivation’, ‘mistrust / abuse’, ‘vulnerability’, and ‘insufficient self-control’. Factor 2 was labelled as *narcissistic aggressive* and consisted of the ‘punitiveness’, ‘entitlement’, and ‘unrelenting standards’ EMS.

The pattern of correlations between the psychopathy and narcissism constructs, and the *internal vulnerability* and *narcissistic aggressive* factors are compatible with the literature delineating the psychopathy and narcissism constructs. Primary psychopathy, traditionally associated with the core personality traits of psychopathy as described by Cleckley (1976) and Hare (1985), demonstrated a significant correlation ($r=.3$) with the *narcissistic aggressive* factor found in this study. Secondary psychopathy, traditionally associated with social deviance and impulsivity, was also significantly related to the *narcissistic aggressive* factor, but slightly less strongly ($r=.2$). Secondary psychopathy was moderately related to the *internal*

vulnerability factor ($r=.4$), with primary psychopathy also being related to this factor, but less strongly ($r=.1$). These findings are further in keeping with the literature on psychopathy identifying two distinct factors, primary and secondary psychopathy, distinguished by core pathological personality characteristics (such as glibness, grandiosity, manipulateness and lack of empathy) versus overt manifestations of antisocial behaviour (such as poor behavioural controls, a parasitic lifestyle, impulsivity and irresponsibility) (Hare, 1980, 1985).

The *internal vulnerability* factor of the Young EMS conceptualisation can be stated as reflecting core ideas of internal vulnerability to issues such as failure, abandonment, social isolation and emotional deprivation. As such, it is reasonable to expect individuals exhibiting these schemas to manifest overt antisocial behaviour as they struggle to come to terms with their overly negative internal self-beliefs, and their resulting pathological interpersonal interactions. These expectations coincide with the description of the secondary psychopath, and are consistent with the results of this study.

The *narcissistic aggressive* factor of the Young EMS conceptualisation, as identified in this study, reflects a more entrenched internal philosophy of entitlement and punitiveness towards others when personal goals and expectations are not met. These could conceivably manifest in the more securely established personality characteristics commonly associated with primary psychopathy.

Overt narcissism was mildly and negatively correlated ($r=-.1$) with the internal vulnerability, and moderately correlated ($r=.4$) with the narcissistic aggressive factor.

Once again this is in keeping with the overt / covert narcissism distinction (Wink, 1991). Lending further support to this distinction within the narcissism construct is the observed stronger relationship between covert narcissism and the internal vulnerability factor ($r=.5$), than with narcissistic aggressive factor, where the correlation is significant but weaker ($r=.4$).

3.3.4 Summary

The question of whether psychopathy and narcissism are distinct constructs has been addressed utilising a cognitive interpersonal conceptualisation of these constructs. This has resulted in preliminary support for the notion of psychopathy being a sub-set of narcissism. Having demonstrated the usefulness of understanding these two disorders in these terms, the question of whether the observed differences and overlaps between these disorders are also evident in pure cognitive terms was examined. Utilising Beck, et al.'s (1990) cognitive theory of personality disorders, and the cognitive distortions defined therein, it may be possible to further elucidate the nature of psychopathy and narcissism and the relationship between them.

CHAPTER 4

Psychopathy and Narcissism: A Characterisation in Terms of Cognitive Distortions

As noted in Chapter 1, the symptoms of personality disorder generally manifest in two or more of the following four areas of human functioning; interpersonal functioning (how an individual conducts themselves in the company of others), cognition (how an individual perceives and interprets environmental stimuli), affectivity (the range, intensity, lability, and appropriateness of emotional responses exhibited), and impulse control (the degree to which one is able to delay immediate / reflexive responses (APA, 1994). The study reported in the previous chapter examined the constructs of psychopathy and narcissism in a cognitive-interpersonal sphere of human functioning. The current chapter reports on a study conducted in order to test hypotheses about psychopathy and narcissism derived from Beck and colleagues' cognitive conceptualisation of personality disorder. More specifically, the current study investigates which cognitive distortions are associated with trait psychopathy and trait narcissism.

Beck et al.'s (1990) cognitive theory of personality disorders is both speculative and incomplete in a number of regards. As outlined in Chapter 2, they offer an evolutionary account of human thinking, affect and behaviour, where they suggest that much of what manifests in human experience today, is the result of programmed patterns that were once adaptive in a more primitive, less industrialised and technological environment. Beck et al. (1990) suggest that a discontinuity now exists

between these programmed patterns and the social milieu of today's society. It is this discontinuity that leads to these programmed patterns being maladaptive and regarded as personality disorders.

As shown in Chapter 2, central to the cognitive theory of personality disorders is the concept of the schema (Beck et al. 1990). It is the content of these cognitive schemas that determine the cognitive, affective and behavioural processes within individuals, and it is the schemas that constitute the building blocks of personality.

Beck et al. (1990) assert that one can recognise specific relationships between an individual's overt behaviour on the one hand, and internal beliefs and attitudes on the other. Thus, an antisocial individual with the belief that they are being forever victimised by 'the system', will demonstrate the overt behavioural strategy to 'strike or attack first'. Similarly, the narcissistic individual who firmly believes they are 'special', will engage in outward displays of self-aggrandisement.

These internal cognitive states (beliefs, and cognitive distortions) are said to be exaggerated in personality disordered individuals (Beck et al. 1990). One way in which the qualitative exaggeration of these cognitive states is said to be achieved is through the systematic biasing of incoming stimuli, and hence the content of beliefs, attitudes and schemas. The set of systematic biases which guide the perception of incoming information are collectively termed cognitive distortions.

As outlined in Chapter 2, Beck et al. (1990) suggest that a number of cognitive distortions characterise antisocial individuals. These serve to guide their behavioural

patterns and include: 'justification', 'thinking is believing', 'personal infallibility', 'feelings make facts' (emotional reasoning), 'the impotence of others' (minimisation), and 'low-impact consequences'. The antisocial individual's perception of reality is systematically altered or biased by these cognitive distortions, thereby tainting their interpretation of events, and by extension, their behaviour.

Millon and Davis (2000) has extended Beck et al.'s account and suggested a number of cognitive distortions typically found in narcissistic individuals. These include; 'dichotomous thinking', 'magnification', 'minimisation', and 'justification'. Similarly, Young and Flanagan (1998) have proposed the following cognitive distortions as being characteristic of narcissism: 'dichotomous thinking', 'jumping to conclusions', and 'labelling'.

The study reported in this chapter tests the following hypotheses about the nature of the cognitive distortions associated with psychopathic and narcissistic traits. As there is no currently available measure of cognitive distortions, a measure was developed as part of the study.

Hypethesis I: That secondary psychopathic traits are associated with the following cognitive distortions; 'justification', 'thinking is believing', 'personal infallibility', 'feelings make facts', 'the impotence of others', and 'low impact consequences' (Beck et al. 1990).

Hypothesis II: That overt narcissistic traits are associated with the following cognitive distortions: 'dichotomous thinking', 'magnification', 'minimisation', 'justification',

‘jumping to conclusions’, and ‘labelling’ (Millon & Davis, 2000; Young & Flanagan, 1998).

It is unclear on the basis of the current literature how covert narcissism would be associated with cognitive distortions, or each of the psychopathy constructs, as no clear predictions are made in this regard.

4.1 METHOD

4.1.1 Participants and Procedure

A total of 132 individuals participated in this study. The bulk of the participants were second year psychology students at the Australian National University (ANU) who completed questionnaires during a scheduled laboratory class, as part of their course requirement in a personality psychology course. The remaining participants were recruited from the general public of the Australian Capital Territory (ACT). These latter participants were volunteers who completed the questionnaire in their own time, and returned it to the author. Thirty-two (24.2 %) of the participants were male, and 100 (75.8 %) were female. The mean age of the participants was 26.04 years, (SD=10.57 years, skewness=2.19, kurtosis=5.12) and the range was 18 to 77 years.

4.1.2 Measures

The questionnaire consisted of four measures: The Psychopathy and Narcissism Cognitive Distortions Questionnaire (PNCDQ; see APPENDIX VI); Levenson's Self Report Psychopathy Scale (LSRP, APPENDIX III; Levenson et al. 1995; Lynam et al. 1999), the Narcissistic Personality Inventory (NPI, APPENDIX IV; Raskin and Hall, 1979), and the Hypersensitive Narcissism Scale (HSNS, APPENDIX V; Hendin and Cheek, 1997).

4.1.3 Measure of Cognitive Distortions

Psychopathy and Narcissism Cognitive Distortions Questionnaire (PNCDQ)

Cognitive distortions were measured using the PNCDQ. As there currently exists no empirically-derived measure of cognitive distortions hypothesised to be operating in psychopathy and narcissism, sub-scales measuring each of the ten cognitive distortions postulated as operative in these disorders were developed by the author.

To yield items characteristic of each of the cognitive distortions, a number of items (ie 8 for most of the scales, but not all) were developed for each by the author, in consultation with the thesis supervisor. It was reasoned that a later internal consistency analysis of each cognitive distortion sub-scale would yield the final (lesser) number of items that would eventually compose each sub-scale. The content of these items was based on descriptions of the types of cognitive distortions typical of psychopaths and narcissists provided by a number of researchers and clinicians in

the field (Young, 1999; Beck et al. 1990; Millon & Davis, 2000; see APPENDIX VII for a list of items included in the PNCDQ, and those items retained in the final analysis).

The PNCDQ as administered in this study consisted of a 76-item scale, the content of which was based on the psychopathy and narcissism literature, and developed by the author using the procedure elaborated above. This 76-item scale consisted of 10 sub-scales, each measuring one cognitive distortion hypothesised to be operating in psychopaths and/or narcissists. Response options for each item on the PNCDQ consists of a 5-point scale ranging from 1 “Agree” to 6 “Disagree”. Thus, in this format, lower scores on each cognitive distortion sub-scale indicate a greater degree of that distortion operating / existing in the individual. In order to bring scores on this scale in line with the scores on the other scales used in the questionnaire (ie where higher scores indicate a greater degree of endorsement, or presence, of a trait), all item scores on the PNCDQ were reversed prior to analysis. In this fashion, higher scores on each cognitive distortion sub-scale then reflected a greater degree of that distortion operating in an individual.

4.1.4 Remaining Measures

Along with the PNCDQ, the LSRP was also administered in this study, as in the first study, to measure primary and secondary psychopathy. Similarly, overt and covert narcissism were measured in this study using the same instruments that were

administered in the first study; ie the NPI and HSNS for overt and covert narcissism respectively.

4.1.5 Data Analysis

The primary purpose of the data analysis was to examine the relationships between cognitive distortions and psychopathy and narcissism. In elucidating these relationships, it was sought to characterise psychopathy and narcissism in terms of the cognitive distortions which underlie them. A greater clarification of these inter-relationships was sought through the further division of each of the primary constructs under investigation (psychopathy and narcissism) into primary (P1) and secondary (P2) psychopathy, and overt and covert narcissism. To examine these relationships, a correlational analysis was conducted between these variables.

A principle components analysis was also conducted on the cognitive distortions to ascertain the factor structure of the PNCDQ. This was then used to investigate further the relationships between narcissism and psychopathy and the cognitive distortions which define them.

4.2 RESULTS

The results of the statistical analyses are reported in three sections. In the first section, a psychometric analysis of the four measures used in the study (PNCDQ - cognitive distortions scale; LSRP – psychopathy, P1 and P2 scales; NPI – overt narcissism scale; HSNS – covert narcissism scale) is presented. The subsequent sections present the analysis relating to the main questions of the study. The second section presents a correlational analysis demonstrating the relationships between cognitive distortions, psychopathy, P1, P2, overt and covert narcissism. The third section seeks to further explicate these constructs through a principle components analysis of the cognitive distortions sub-scales, and subsequent correlational analysis between the factors derived from the factor analysis, and the constructs under investigation: psychopathy, P1, P2, overt and covert narcissism.

4.2.1 Psychometric Analysis

Internal Consistency of the PNCDQ

In order to maximise the reliability of the sub-scales of the PNCDQ, reliability analyses using coefficient alpha were performed on each of the sub-scales. All items administered in the questionnaire were initially included in the analysis. Unreliable items were then identified, and subsequently removed, on the basis of their *alpha if item deleted* index. (That is, if coefficient alpha for the sub-scale in question was seen to increase with the deletion of that particular item, the item was removed from any

subsequent analysis). The reliability analysis was then reapplied, and any further unreliable items were identified and removed using the item-deletion method described above. Appendix VII displays the final items remaining for each of the ten cognitive distortion sub-scales. Table 4.1 presents final coefficient alpha for each of the sub-scales, as well as the final number of items in each of the scales after the above process.

Table 4.1: *PNCDQ sub-scale reliability - coefficient alpha for each cognitive distortion sub-scale (n=132)*

Cognitive distortion	Alpha	Number of items
Jumping to conclusions	.71	5
Labelling	.81	5
Low impact consequences	.78	5
Minimisation	.73	7
Magnification	.70	6
Personal infallibility	.76	6
Justification	.65	7
Dichotomous thinking	.65	5
Emotional reasoning	.76	8
Thinking is believing	.77	7

The reliability coefficients for the cognitive distortion sub-scales reported in Table 4.1 are quite acceptable given that the sub-scales are designed for research, rather than clinical, purposes (Nunnally, 1970). Furthermore, Aiken (1996) suggests that scales with reliability coefficients as low as .65 “may make a contribution” when comparing groups of people on variables of interest. Eight of the 10 cognitive distortion sub-scales have alpha coefficients of .70 or greater, indicating acceptable internal consistency for empirical purposes.

Psychopathy and narcissism – Internal consistency measures (coefficient alpha) were calculated for each of the remaining three scales of the questionnaire. Table 4.2

presents the obtained alpha coefficients for the full LSRP scale, each of its sub-scales (P1 & P2), the NPI and HSNS scales.

Table 4.2: *Scale reliability – coefficient alpha for LSRP (full scale, P1 and P2), NPI and HSNS (n=132)*

Scale	Alpha	Number of items
LSRP (full scale)	.78	25
LSRP (P1)	.79	16
LSRP (P2)	.66	9
NPI	.83	40
HSNS	.64	10

As mentioned above, the reliability indices reported in Table 4.2 are acceptable given that the scales are being used for research rather than clinical purposes (Nunnally, 1970). Only the P2 sub-scale of the LSRP, and the HSNS have relatively low alpha coefficients of .66 and .64 respectively. Again, the alpha's obtained for P1 and P2 in this study compare favourably with those obtained by Levenson et al. (1995). Furthermore, the reliability coefficients obtained here are in keeping with those obtained for the same scales in the first study reported in this thesis (see Table 3.2).

4.2.2 Correlational Analysis

The correlation matrix for the cognitive distortions and all constructs is presented in Table 4.3. Psychopathy was significantly correlated with both overt and covert narcissism. Primary psychopathy (P1) was significantly correlated with both covert and overt narcissism. Secondary psychopathy (P2) was significantly correlated with covert narcissism and not overt narcissism.

Overt narcissism was significantly correlated to all of the measured cognitive distortions, while covert narcissism was significantly related to a sub-set of four of these; (in order of strength of correlation) ‘dichotomous thinking’, ‘justification’, ‘labelling’ and ‘minimisation’.

Table 4.3: *Pearson’s correlation coefficients among cognitive distortion sub-scales and the psychopathy and narcissism constructs (n=132)*

	P1	P2	Psych	Covnarc	Ovnarc
Dichot thinking	0.34**	0.27**	0.39**	0.40**	0.22*
Justification	0.52**	0.320**	0.55**	0.30**	0.46**
Pers infallibility	0.32**	0.11	0.34**	0.12	0.32**
Magnification	0.09	0.03	0.09	-0.02	0.48**
Minimisation	0.42**	0.22*	0.42**	0.18*	0.37**
Low imp conseq	0.52**	0.20*	0.50**	0.00	0.28**
Labelling	0.46**	0.26**	0.50**	0.23*	0.32**
Jump to conc	-0.00	0.00	-0.00	-0.02	0.25**
Thinking is bel	0.48**	0.28**	0.50**	0.14	0.30**
Em reasoning	0.10	0.15	0.15	0.14	0.35**
P1		.24**	.89**	.20*	.35**
P2			.67**	.37**	.12
Psychopathy				.33**	.32**
Covnarc					.10

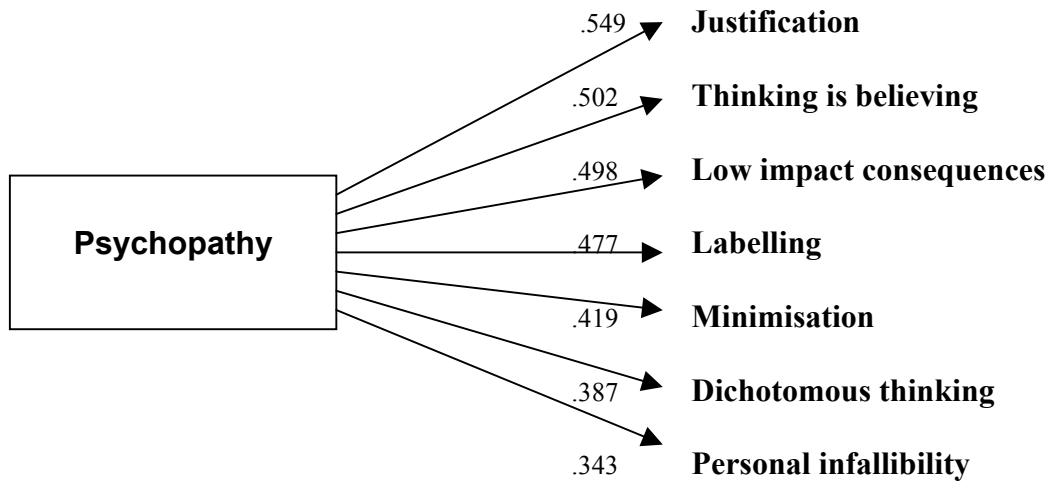
** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

Note. P1 = primary psychopathy; P2 = secondary psychopathy; Psych = psychopathy; Covnarc = covert narcissism; Ovnarc = overt narcissism; Dichot thinking = dichotomous thinking; Pers infallibility = personal infallibility; Magnification = magnification; Minimisation = minimisation; Low imp conseq = Low impact consequences; Labelling = labelling; Jump to conc = jumping to conclusions; Thinking is bel = thinking is believing; Em reasoning = emotional reasoning.

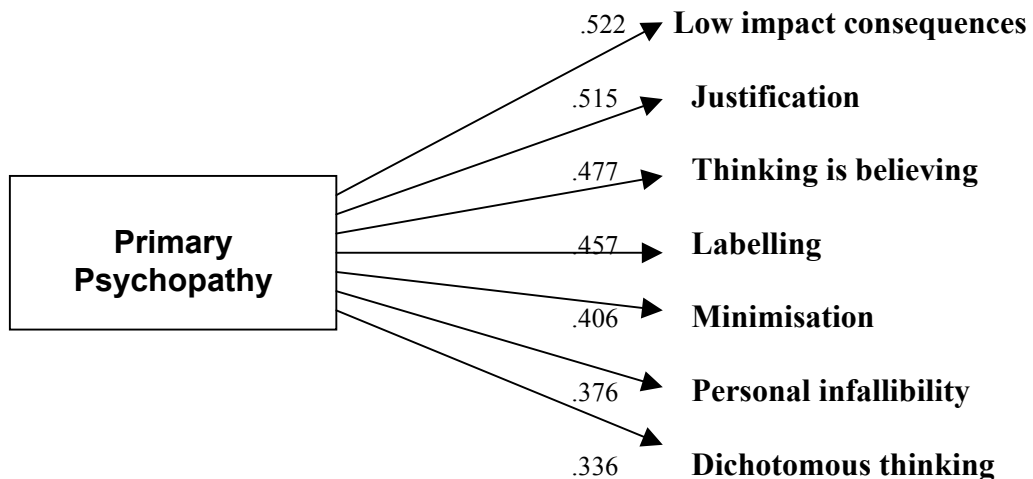
Psychopathy was significantly correlated with seven of the 10 cognitive distortions (see Figure 4.1 below), in order of strength of correlation; ‘justification’, ‘thinking is believing’, ‘low impact consequences’, ‘labelling’, ‘minimisation’, and ‘dichotomous thinking’, and ‘personal infallibility’.

Figure 4.1: Significant correlations among cognitive distortion sub-scales and psychopathy (LSRP)



When examined by the component sub-scales, it was found that primary psychopathy (P1) was also significantly correlated with seven of the 10 cognitive distortions (see Figure 4.2 below), in order of strength of correlation; ‘low impact consequences’, ‘justification’, ‘thinking is believing’, ‘labelling’, ‘minimisation’, ‘personal infallibility’, and ‘dichotomous thinking’.

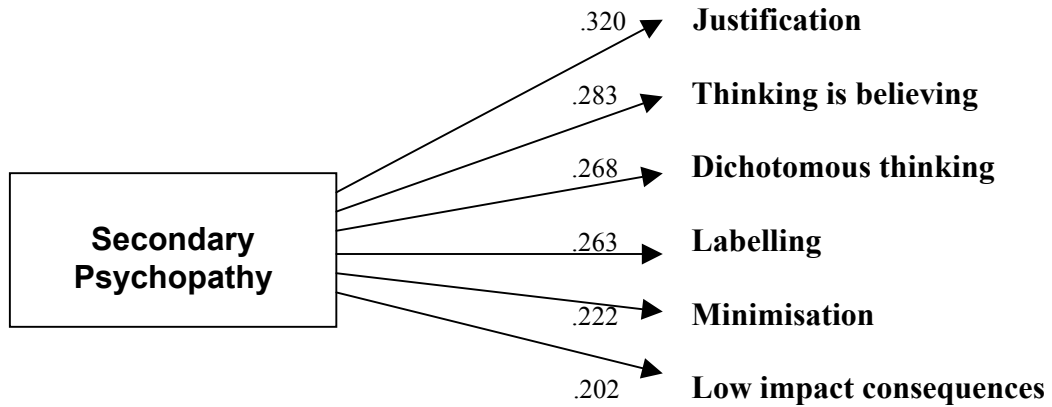
Figure 4.2: Significant correlations among cognitive distortion sub-scales and primary psychopathy (LSRP sub-scale, P1)



Secondary psychopathy (P2) was significantly correlated with six of the 10 cognitive distortions (see Figure 4.3 below), in order of strength of correlation; ‘justification’,

‘thinking is believing’, ‘dichotomous thinking’, ‘labelling’, ‘minimisation’ and ‘low impact consequences’.

Figure 4.3: Significant correlations among cognitive distortion sub-scales and secondary psychopathy (LSRP sub-scale, P2)



The overall strength of the correlations between P2 and the cognitive distortions were weaker than the same relationships between the cognitive distortions and P1. Secondary psychopathy was not significantly correlated to personal infallibility as in the case of P1.

Table 4.4 presents the correlations among the 10 cognitive distortion sub-scales. Table 4.4 reveals a number of high inter-correlations among the cognitive distortion sub-scales. There are 8 pairs of correlations over .6 indicating a high degree of overlap of measurement / inter-relatedness. The ‘thinking is believing’ cognitive distortion sub-scale was itself significantly correlated with eight of the remaining nine cognitive distortions, four of those correlations being over .62. The ‘minimisation’ cognitive distortion sub-scale was also significantly correlated with eight of the remaining nine cognitive distortion sub-scales, three of those correlations being over .6. The ‘jumping to conclusions’ sub-scale was the one with which neither of the ‘thinking is believing’, or ‘minimisation’ sub-scales were significantly correlated. Indeed, the ‘jumping to conclusions’ sub-scale was significantly correlated with only

three other sub-scales; ‘emotional reasoning’, ‘magnification’, and ‘personal infallibility’.

Table 4.4: *Pearson’s correlation coefficients among PNCDQ cognitive distortion sub-scales (n=132)*

	2	3	4	5	6	7	8	9	10
1. Dichot thinking	0.53**	0.37**	0.21*	0.53**	0.47**	0.47**	-0.01	0.62**	0.21*
2. Justification	-	0.57**	0.34**	0.59**	0.54**	0.55**	0.13	0.71**	0.44**
3. Pers infallibility		-	0.31**	0.52**	0.44**	0.46**	0.32**	0.58**	0.42**
4. Magnification			-	0.22*	0.17	0.06	0.53**	0.23**	0.49**
5. Minimisation				-	0.60**	0.64**	0.04	0.69**	0.31**
6. Low imp conseq					-	0.52**	-0.03	0.60**	0.19*
7. Labelling						-	-0.04	0.70**	0.28**
8. Jump to conc							-	0.06	0.60**
9. Thinking is bel								-	0.49**
10. Em reasoning									-

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

Note. Dichot thinking = dichotomous thinking; Justification = justification; Pers infallibility = personal infallibility; Magnification = magnification; Minimisation = minimisation; Low imp conseq = Low impact consequences; Labelling = labelling; Jump to conc = jumping to conclusions; Thinking is bel = thinking is believing; Em reasoning = emotional reasoning.

Due to this pattern of correlations among the cognitive distortions sub-scales, it was considered appropriate to conduct a data reduction analysis in order to further interpret any underlying cognitive structures which may be operating in narcissism and psychopathy.

4.2.3 Factor Analysis

As mentioned previously, there was a high degree of inter-relatedness among the PNCDQ sub-scales. The Kaiser-Meyer-Olkin (KMO) test of sampling adequacy (KMO=.86) was well above the value of .6 required for a good factor analysis (Tabachnick & Fidell, 1996). Bartlett’s test of sphericity was also significant (682.40, $p < .001$) also implying factorability of the data.

A principle components analysis with oblimin rotation was performed using SPSS for Windows, version 10 on the 10 PNCDQ cognitive distortion sub-scales. Examination of the eigenvalues produced (Table 4.5), and the scree plot of eigenvalues plotted against factors, indicated that there were two factors with eigenvalues greater than one.

Table 4.5: *Final statistics for Rotated Factor Matrix (n=132)*

Factor	Eigenvalue	Percent of variance	Cumulative percent
1	4.37	43.67	43.67
2	1.53	15.30	58.97

From Table 4.5, the two factors account for approximately 59 percent (58.98%) of the variance in cognitive distortion scores. The first factor accounted for the majority of the variance, approximately 44 percent, with the second factor accounting for approximately 15 percent.

Table 4.6 *Rotated factor loading (pattern) matrix of factor 1 (F1) and factor 2 (F2) (n=132)*

	Factor	
	Factor 1	Factor 2
Thinking is bel	.884	
Minimisation	.803	
Labelling	.785	-.106
Justification	.734	.171
Low imp conseq	.724	
Dichot thinking	.671	
Pers infallibility	.549	.301
Jump to conc	-.224	.925
Em reasoning	.222	.686
Magnification		.609

Note. Dichot thinking = dichotomous thinking; Justification = justification; Pers infallibility = personal infallibility; Magnification = magnification; Minimisation = minimisation; Low imp conseq = Low impact consequences; Labelling = labelling; Jump to conc = jumping to conclusions; Thinking is bel = thinking is believing; Em reasoning = emotional reasoning.

The rotated component factor loadings from the pattern matrix in Table 4.6 indicate that the two factors are well defined. Loading on factor 1, labeled *dichotomous*

minimising cognitive style, were the following cognitive distortions; ‘thinking is believing’, ‘minimisation’, ‘labelling’, ‘justification’, ‘low impact consequences’, ‘dichotomous thinking’, ‘personal infallibility’, ‘jumping to conclusions’, ‘emotional reasoning’, and ‘magnification’. The ‘jumping to conclusions’, ‘emotional reasoning’ and ‘magnification’ cognitive distortions all loaded on to factor 2, labeled *impulsive emotional cognitive style*. ‘Personal infallibility’ appears to be a complex variable loading on both factors 1 and 2. The factor correlation matrix in Table 4.7 further demonstrates that the two extracted factors appear to be distinct. The factor scores were then saved as variables using the regression method. These variables were used to compute a factor score correlation matrix including the psychopathy and narcissism constructs, and this is displayed in Table 4.7.

Table 4.7: *Factor score correlation matrix (n=132)*

	Factor 1	Factor 2
Psychopathy	.571 **	.132
P1	.552 **	.114
P2	.306 **	.092
Overt narcissism	.399 **	.391 **
Covert narcissism	.201 *	.053
F2	.315 **	

Note. P1 = primary psychopathy; P2 = secondary psychopathy; F2 = factor 2.

Table 4.7 demonstrates that psychopathy and primary psychopathy (P1) are highly correlated with factor 1. Secondary psychopathy (P2), overt and covert narcissism are also significantly correlated with factor 1. The correlation between the two factors (F1 and F2) is low ($r=.315$) and highly significant, indicating that the factors are relatively independent but not completely orthogonal. Only overt narcissism was significantly correlated with factor 2.

4.3 DISCUSSION

The aim of the present study was to address the diagnostic uncertainty between psychopathy and narcissism. In so doing, the study set out to test a number of hypotheses derived from the cognitive theory of personality disorders, and to further investigate the relationship between psychopathy and narcissism. On the basis of the current analysis, hypothesis I was partially supported, with secondary psychopathy being related to four out of the six cognitive distortions put forward by Beck et al. (1990) to typify antisocial individuals: ‘justification’, ‘minimisation’, ‘low impact consequences’, and ‘thinking is believing’. Hypothesis II was supported by the results of the current study, with all the cognitive distortions hypothesised as being associated with overt narcissism by Millon and Davis (2000) and Young and Flanagan (1998) displaying positive relationships with the measure of overt narcissism, the NPI.

On the basis of the current analysis, several conclusions can be drawn regarding the issue of the association between psychopathy and narcissism. Firstly, the data support the previously observed distinctions between primary and secondary psychopathy on the one hand, and overt and covert narcissism on the other. Secondly, an analysis of the cognitive distortion sub-scales loading on each observed superordinate factor, as well as the pattern of correlations between the psychopathy and narcissism constructs and these derived factors, again lend support to the view that psychopathy is a subset of narcissism.

4.3.1 Psychometric Issues

4.3.1.1 Internal consistency

The results of the current study indicate that the measures utilised to operationalise the constructs of interest possess appropriate psychometric properties to allow for useful further analysis. The 10 cognitive distortion sub-scales of the PNCDQ all demonstrated acceptable internal consistency with coefficient alpha's ranging from .65 to .81. The LSRP and its sub-scales for primary and secondary psychopathy also demonstrated acceptable internal consistency measures with alpha's of .78, .79 and .66 respectively. This is in keeping with earlier reports of internal consistency for the LSRP (Levenson, et al. 1995; Lynam, et al. 1999; Ferrigan, et al. 2000), and is also largely consistent with the internal consistency measures reported for these sub-scales in Chapter 3 of this thesis. Similarly, the NPI and HSNS also demonstrated acceptable internal consistency with coefficients alpha of .83 and .64 respectively. The alpha for the HSNS is lower than that obtained by Hendin and Cheek (1997) but is still acceptable given the low number of items (10) composing the scale, and its use for empirical purposes (Nunally, 1970). The alpha coefficient of .83 obtained for the NPI is acceptable and compares favourably with previous investigations (Emmons, 1987). Furthermore, the alpha coefficients obtained for the NPI and HSNS in the current study again compare favourably with those reported for these scales in Chapter 3 of this thesis.

4.3.2 The Relationship Between Psychopathy and Narcissism

The first hypothesis of this study was not entirely supported. Beck et al. (1990) have suggested that six cognitive distortions typify individuals who display antisocial traits: ‘justification’, ‘thinking is believing’, ‘personal infallibility’, ‘feelings make facts’, ‘the impotence of others’, and ‘low impact consequences’. This study showed that secondary psychopathic traits are associated with only four of the cognitive distortions suggested by Beck and colleagues as characteristic of antisocial individuals; ‘justification’, ‘minimisation’, ‘low impact consequences’, and ‘thinking is believing’. Of the two hypothesised cognitive distortions that were not found to be associated with secondary psychopathic traits in this study, ‘personal infallibility’ was observed to have an association with primary psychopathic traits, as well as with overt narcissistic traits. This would suggest that ‘personal infallibility’ is more characteristic of the primary psychopath and overt narcissist than of the secondary psychopath. The ‘emotional reasoning’ cognitive distortion was found to not be associated with primary or secondary psychopathic traits, rather, its association is with overt narcissistic traits. This would suggest that ‘emotional reasoning’ is a cognitive distortion employed mostly by narcissistic rather than primary psychopathic individuals, or individuals with an antisocial personality disorder (secondary psychopathy).

The second hypothesis that overt narcissistic traits would be associated with ‘dichotomous thinking’, ‘magnification’, ‘minimisation’, ‘justification’, ‘jumping to conclusions’, and ‘labelling’ as suggested by Millon and Davis (2000) and Young and Flanagan (1998) was supported. Overt narcissistic traits as measured by the NPI were

significantly correlated with all the cognitive distortions, with correlations ranging from mild ($r=.2$, 'dichotomous thinking') to moderate ($r=.5$, 'magnification'). Primary and secondary psychopathic traits were observed to be related to seven and six cognitive distortions respectively. These observations are in agreement with the suggestion that narcissism, cognitively, represents a superordinate construct of which psychopathy is a variant. This issue is discussed in greater detail later.

As was observed in the first study reported in Chapter 3, primary psychopathy was correlated with both covert and overt narcissism. Also in keeping with observations made in Chapter 3, secondary psychopathy was correlated only with covert narcissism. Once again, these observations are in keeping with the assertion that overt narcissism is a strong component of primary psychopathy, as the correlation between overt narcissism and primary psychopathy ($r=.4$) was greater than the correlation between covert narcissism and primary psychopathy ($r=.2$).

As also reported in Chapter 3, the mild to moderate relationship between covert narcissism and secondary psychopathy ($r=.4$) is in keeping with prior observations that covert narcissism is associated with a sense of vulnerability / sensitivity to life's traumas, including feelings of anxiety, a lack of fulfilment and pessimism (Wink, 1991). Secondary psychopathy is stated as representing the dissocial / criminal aspect of psychopathy (Harpur et al. 1989; Harpur et al. 1994). As such, secondary psychopaths tend to lack the core personality traits of the primary psychopath, are more likely to experience remorse for their antisocial acts, and are vulnerable to dysphoric states, such as anxiety and depression (Harpur et al. 1989; Harpur et al.

1994). This is in keeping with the presumed vulnerability and sensitivity to negative emotional states and life's trauma's experienced by covert narcissistic individuals.

Further evidence for the association between secondary psychopathy and covert narcissism, was obtained from the observed correlations between these constructs and the cognitive distortion sub-scales. Secondary psychopathy was correlated with six of the 10 cognitive distortions ('dichotomous thinking', 'justification', 'minimisation', 'low impact consequences', 'labelling', and 'thinking is believing'), while covert narcissism was significantly related to a sub-set of four of these. ('dichotomous thinking', 'justification', 'minimisation', and 'labelling'). The strength of the relationships are roughly equivalent for the related cognitive distortions between secondary psychopathy and covert narcissism, with secondary psychopathy also being related to 'low impact consequences', and 'thinking is believing' while covert narcissism was not.

This is understandable in terms of the presumed impulsivity characteristic of the secondary psychopath. Secondary psychopathy is largely characterised by the presence of impulsive antisocial acts, and a proneness to boredom and irresponsibility (Hare, 1991; Harpur et al., 1989; Harpur et al, 1994), and only later, to the experience of remorse and / or guilt for these acts. The covert narcissist, on the other hand, displays all the vulnerability and emotionality of the secondary psychopath but is devoid of the proneness to boredom and hence the susceptibility to the impulsive antisociality characteristic of the more criminally susceptible secondary psychopath. Cognitive distortions such as 'low impact consequences' and 'thinking is believing' can be understood as demonstrable manifestations of the more impulsive nature of the secondary psychopath compared to the covert narcissist.

In the current study, primary psychopathy was significantly correlated with a subset of the cognitive distortions to which overt narcissism was related. Overt narcissism was related to all of the cognitive distortions measured by the PNCDQ, while primary psychopathy was significantly correlated to seven of these; ‘dichotomous thinking’, ‘justification’, ‘personal infallibility’, ‘minimisation’, ‘low impact consequences’, ‘labelling’, and ‘thinking is believing’. This finding is in keeping with the position that psychopathy is a sub-category of narcissism (Kernberg, 1970; Meloy, 1988). The two cognitive distortions observed to be most strongly correlated with primary psychopathy were ‘justification’ ($r=.5$) and ‘low impact consequences’ ($r=.5$). Overt narcissism also displayed a moderate relationship with the ‘justification’ cognitive distortion ($r=.5$), but was only mildly related with the ‘low impact consequences’ cognitive distortion ($r=.28$). This observation is not in keeping with Beck’s description of the *secondary* psychopath as being characterised by a ‘low impact consequences’ cognitive distortion (Beck et al. 1990). Although ‘low impact consequences’ was also correlated with secondary psychopathy, this relationship was not as strong as that with primary psychopathy, suggesting that this cognitive distortion is more characteristic of the primary than the secondary psychopath. On the other hand, this is not a characteristic that has been identified in descriptions of overt narcissists. While overt narcissists demonstrate a sense of entitlement and a belief that they are special (APA, 1994), as well as being overtly grandiose and exhibitionistic (Wink, 1991), they have not been described as specifically minimising the impact of the consequences of their actions.

The observed pattern of correlations between overt and covert narcissism, and the PNCDQ cognitive distortion sub-scales, is also of interest in the current study. As mentioned previously, overt narcissism is significantly related to all of the cognitive distortions measured. However, covert narcissism was significantly related to only four cognitive distortions; ‘dichotomous thinking’, ‘justification’, ‘minimisation’, and ‘labelling’. Moreover, the observed correlations between covert narcissism and these cognitive distortions are quite low (range $r=.18$ to $.35$). This result serves to reinforce the distinction between overt and covert narcissism made by Wink (1991), and appears to imply that covert narcissists employ fewer cognitive distortions than do overt narcissists. This finding may also be interpreted as indicating that overt narcissists exhibit a greater degree of cognitive (information processing) pathology than do covert narcissists.

4.3.3 Factor Analysis of PNCDQ Cognitive Distortion Sub-scales

Results from the factor analysis of the PNCDQ cognitive distortion sub-scales indicated that two distinct factors were identified as superordinate constructs. Both factors were well defined with only the ‘personal infallibility’ sub-scale identified as a complex variable, loading on both factors 1 and 2. This left two distinct factors, with factor 1 consisting of seven cognitive distortions (including the ‘personal infallibility’ sub-scale, with a factor loading of $.55$), and factor 2 consisting of three. Factor 1, labelled *dichotomous minimising cognitive style* consisted of the following cognitive distortion sub-scales in order of strength of factor loading: ‘thinking is believing’, ‘minimisation’, ‘labelling’, ‘justification’, ‘low impact consequences’, ‘dichotomous

thinking’, and ‘personal infallibility’. Loading on factor 2, labelled as *impulsive emotional cognitive style*, were the ‘jumping to conclusions’, ‘emotional reasoning’, and ‘magnification’ cognitive distortions.

In interpreting the two derived factors, it is worthwhile noting that only one of the hypothesised antisocial cognitive distortions (Beck et al. 1990), ‘emotional reasoning’, loaded onto the second factor, *impulsive emotional cognitive style*. In contrast, two of the hypothesised narcissistic distortions, ‘jumping to conclusions’ (Young & Flanagan, 1998), and ‘magnification’ (Millon & Davis, 2000) loaded onto the *impulsive emotional cognitive style* factor, with the remaining hypothesised cognitive distortions for narcissism loading onto the first factor, *dichotomous minimising cognitive style*. This would appear to imply, if the hypothesised cognitive distortions are accurate, that the *dichotomous minimising cognitive style* factor may represent an ‘antisocial / narcissistic’ cognitive factor, while the *impulsive emotional cognitive style* factor may represent that aspect of cognitive functioning specific to narcissistic individuals. If this were the case, then this would provide further support for the perspective that psychopathy is a sub-set of narcissism.

The pattern of correlations between the psychopathy and narcissism constructs, and the *dichotomous minimising* and *impulsive emotional* cognitive style factors are compatible with the premise that psychopathy represents a sub-set of narcissism. Both primary and secondary psychopathy, as well as overt and covert narcissism were significantly correlated with the *dichotomous minimising cognitive style* factor (factor 1). Primary psychopathy was most strongly related to this factor ($r=.6$) lending further support to the above assertion that this initial factor may represent an antisocial

cognitive style factor. The next strongest correlation with this first factor was with overt narcissism ($r=.4$), which was also moderately correlated with the *impulsive emotional cognitive style* factor ($r=.4$). One interpretation of this finding is that overt narcissism is seen to have cognitive features above and beyond those that it shares with psychopathy. Again this is consistent with the view espoused by Kernberg (1970) and Meloy (1988) that psychopathy represents a sub-category of narcissism.

In summary, the results of the current study found evidence to suggest that the two main hypotheses of the study were supported. Beck et al.'s (1990) suggestion that antisocial individuals (secondary psychopaths) are characterised by six specific cognitive distortions was partially supported by the observation that secondary psychopathic traits are associated with four of these six cognitive distortions hypothesised by Beck et al. (1990). The cognitive distortions suggested by Millon and Davis (2000) and Young and Flanagan (1998) to be associated with overt narcissistic traits were observed to be so related. Cumulatively, the results of this study lend further support to the primary / secondary psychopathy distinction, the overt / covert narcissism distinction, as well as providing preliminary evidence for the suggestion that narcissism, cognitively, is a higher-order construct, of which psychopathy represents a sub-category.

CHAPTER 5

General Discussion

The literature review presented in Chapters 1 and 2 of this thesis highlighted a number of relevant issues within the field of personality disorders. Firstly, the prevalence and refractory nature of antisocial and narcissistic personality disorders were identified, along with the conceptual overlap between these as conceptualised by current psychiatric nomenclature (APA, 1994). Secondly, the psychopathy literature presented highlighted the existence of two distinct factors within this construct, primary and secondary psychopathy. It was also noted that the current conceptualisation of antisocial personality disorder (APD), with its emphasis on antisocial and criminal acts, represents only a single aspect of the psychopathy construct, secondary psychopathy. Thirdly, the contemporary narcissism literature presented also revealed the existence of two distinct forms of narcissism, overt and covert narcissism. Once again, current psychiatric nomenclature only identifies the overt form of narcissism and largely ignores the characteristics of covert narcissism in the definition of narcissistic personality disorder (APA, 1994). This suggests that any investigation seeking to understand the relationship between psychopathy and narcissism, needs to examine both primary and secondary psychopathy, and both overt and covert narcissism in order to gain a clear clinical picture, and capture the full richness of each of these constructs and how they are related. Of major consequence to the current argument is also the significant conceptual overlap between psychopathy and narcissism. The primary aim of this thesis was to distinguish between psychopathy and narcissism with a view to ascertaining whether

these are distinct constructs, or whether psychopathy represents a sub-set of the higher order construct of narcissism.

In examining this aim, a number of hypotheses were devised, derived from the empirical literature on psychopathy and narcissism, for examination in the two studies. The study reported in Chapter 3 had three stated hypotheses: (1) that the schema questionnaire has a five-dimensional hierarchical structure (2) that overt narcissism is associated with those EMS stated as central ('entitlement', 'emotional deprivation', and 'defectiveness'), and secondary ('approval-seeking', 'unrelenting standards', 'subjugation', and 'mistrust-abuse') by Young and Flanagan (1998), and (3) that psychopathy and narcissism are discriminable by utilising an EMS conceptualisation. The study reported in Chapter 4 had two stated hypotheses: (1) that secondary psychopathic traits are associated with the following cognitive distortions; 'justification', 'thinking is believing', 'personal infallibility', 'feelings make facts', 'the impotence of others', and 'low impact consequences' (Beck et al. 1990), and (2) that overt narcissistic traits are associated with the following cognitive distortions; 'dichotomous thinking', 'magnification', 'minimisation', 'justification', 'jumping to conclusions', and 'labelling' (Millon & Davis, 2000; Young & Flanagan, 1998).

In order to test these hypotheses, it was sought to characterise the association between psychopathy and narcissism in terms of Young's (1999) theory of early maladaptive schemas (EMS). Further elucidation of the relationship between psychopathy and narcissism was then sought in terms of identifying the cognitive distortions which define them.

Both studies reported in this thesis revealed support for the primary / secondary psychopathy distinction. In the study characterising these constructs in terms of EMS, secondary psychopathy was related to all measured EMS, while primary psychopathy was only related to a sub-set of seven of these. Consistent with the views of Harpur, Hart and Hare (1994) and Hart and Hare (1998) this indicates that secondary psychopaths exhibit a greater degree of intra- and interpersonal pathology than primary psychopaths, who exhibited only small relationships with a handful of EMS, with larger correlations being observed with the ‘mistrust / abuse’, ‘entitlement’ and ‘punitiveness’ EMS. The second study revealed that secondary psychopaths manifest fewer cognitive distortions than primary psychopaths (six rather than seven), and manifest these to a lesser degree, as demonstrated by the respective correlations between secondary and primary psychopathy, and the relevant cognitive distortions. These findings are consistent with the primary / secondary psychopathy distinction as theorised by Hare (1990) and Harpur et al. (1989), in that they demonstrate that primary and secondary psychopathy are discriminable in cognitive terms.

Both studies also provided support for the overt / covert narcissism distinction (Wink, 1991). The first study demonstrated that covert narcissistic traits were significantly positively related to 15 of the 17 EMS measured, while overt narcissistic traits demonstrated a positive relationship with only four of these EMS and negative significant correlations with five EMS. This suggests that covert narcissistic traits are more likely to manifest in an interpersonally defective individual than in one with overt narcissistic traits. The second study found that overt narcissistic traits were characterised by rather strong relationships with all the cognitive distortions, while covert narcissistic traits only exhibited significant relationships with four of these.

This finding suggests that overt narcissists employ a far greater degree of cognitive bias in their daily cognitive processes than do covert narcissists.

The results of the two studies also indicated that a number of overlaps between the psychopathy and narcissism constructs exist. Firstly, primary psychopathy appears to be primarily related to overt narcissistic traits, although also correlated with covert narcissistic traits, while secondary psychopathy shares a number of features with covert narcissistic traits. This finding was found to be constant across both studies. Firstly, the finding that primary psychopathy and overt narcissism share a number of features is in keeping with the views of a number of authors (Harpur et al., 1989; Harpur et al., 1994; APA, 1994). The first study revealed that psychopathy and overt narcissism share the ‘entitlement’, ‘punitiveness’, and ‘attention-seeking’ EMS, and this is in keeping with prior characterisations of both disorders (Hare, 1985; Wink, 1990; APA, 1994). The second study demonstrated strong cognitive links between primary psychopathy and overt narcissism, both sharing significant correlations with seven of the 10 cognitive distortions – in particular ‘justification’, ‘minimisation’, ‘labelling’, and ‘thinking is believing’.

Secondly, secondary psychopathy was found to be significantly related to covert narcissistic traits in both studies. Furthermore, secondary psychopathy demonstrated no relationship with overt narcissistic traits. This finding has not been previously reported in the literature on psychopathy or narcissism. An examination of the relationship between secondary psychopathy and covert narcissistic traits with both the EMS and the cognitive distortions further supports this association between the two constructs. Secondary psychopathy was significantly related (positively) with 15

of the 17 EMS, while covert narcissistic traits were also related to 15 EMS. The strength of these relationships with EMS between secondary psychopathy and covert narcissistic traits were comparable, indicating a similar degree of interpersonal pathology inherent in each construct. This is in keeping with both the criminal and antisocial characteristics, and the emotional vulnerability of the secondary psychopath (Hare, 1985; Hare, 1996) and the similar emotional vulnerability of the covert narcissist (Wink, 1991). Further evidence of the similarity between secondary psychopathy and covert narcissism was provided by the pattern of correlations obtained between these constructs and the cognitive distortions examined in the second study. Both constructs were related to the same cognitive distortions, with secondary psychopathy also exhibiting relationships with the ‘low impact consequences’ and ‘thinking is believing’ cognitive distortions on top of those exhibited by covert narcissism. This makes sense given that secondary psychopaths are characterised largely by their impulsive nature, and their disregard for societal norms (hence the relationship with the ‘low impact consequences’ cognitive distortion), whereas covert narcissists display no such failure to acknowledge the consequences of their actions. Secondary psychopaths also exhibited the ‘thinking is believing’ cognitive distortion (as did primary psychopaths, although the correlation was stronger for the primary psychopaths) whereas covert narcissists did not. Once again, this cognitive distortion appears to be more strongly correlated with more pronounced, or fundamentally ingrained pathology, as demonstrated by this cognitive distortion’s stronger correlations with the primary psychopathy and over narcissism constructs, relative to the secondary psychopathy construct. As covert narcissism has been characterised as representing a general vulnerability to life’s traumas, and a predisposition towards less severe neurotic pathology (Wink, 1991), one would not

expect covert narcissism to be related to this cognitive distortion as covert narcissism is not considered to represent significant or overt manifestations of psychopathology.

A closer examination of the results of both studies for each of the psychopathy and narcissism constructs reveals some interesting associations between these constructs. The observed association between primary psychopathy and overt narcissism can be seen to be characterised, generally, by a low number of EMS, and a high number of cognitive distortions. Conversely, the observed association between secondary psychopathy and covert narcissism can be seen to be characterised by a high number of EMS, and a low number of cognitive distortions. This appears to suggest that primary psychopathic and overt narcissistic traits are characterised by relatively low *interpersonal*, but *high cognitive* pathology. On the other hand, secondary psychopathic and covert narcissistic traits appear to be characterised by a relatively *higher degree of interpersonal*, but *lower cognitive* pathology. This finding has not been observed previously, and conceivably has implications for the treatment of psychopathic and narcissistic individuals. Treatment could plausibly be specifically directed to target either interpersonal or cognitive pathology depending upon the identified clinical presentation.

In delineating the specific characteristic EMS and cognitive distortions for each of the psychopathy and narcissism constructs, it was one of the stated aims of this research to understand the nature of the association between psychopathy and narcissism. The results of these two studies provide empirical evidence in support of the notion that psychopathy is a sub-category of the higher order construct of overt narcissism. The first study demonstrated that overt narcissism exhibited a set of EMS, with which it

was negatively related, above and beyond those exhibited by primary and secondary psychopathy. This indicates that narcissism has features in addition to those it shares with primary psychopathy, but not that primary psychopathy has many features independent of narcissism. Similarly, the second study revealed that overt narcissism was related to the full set of cognitive distortions measured, while primary and secondary psychopathy were related to only a sub-set of these, further indicating that narcissism has features above and beyond those it shares with psychopathy.

While the results of the correlational analysis between psychopathy and narcissism and the derived factors from the EMS sub-scales demonstrate no clear demarcation on this issue, the same analysis on the cognitive distortion sub-scales of the second study provides a clearer picture of the distinction. That analysis clearly suggests that while all psychopathy and narcissism constructs are significantly related to the *dichotomous minimising cognitive style* factor of the cognitive distortion sub-scales, only overt narcissism is significantly related to the second factor, *impulsive emotional cognitive style*. Once again, this provides further support for the assertion that narcissism has characteristics above and beyond those which it shares with psychopathy.

One reason for the finding that the superordinate factors derived from the EMS sub-scales did not appropriately demarcate between psychopathy and narcissism (as was the case with the cognitive distortions factors) may be due to the level of specificity referred to in the EMS sub-scales, as opposed to that of the cognitive distortions sub-scales. That is, the EMS represent measures of general (pathological) beliefs about interpersonal styles of behaviour and interaction, and as such, are more likely to be present in all manifestations of psychological pathology. In fact, Young (1999) states

that EMS are in fact present in all personality disordered individuals, and it is the degree to which these are activated in an individual's everyday encounters that determines the degree of pathology and hence distress. The cognitive distortions sub-scales, on the other hand, represent very specific information processing biases, which have been demonstrated as being disorder-specific in their manifestation (Beck et al 1979). As the cognitive distortion sub-scales were developed by the author, with the choice of items being based on the specific disorders of interest, it is conceivable that this is where the demarcation lies, in the disorder-specificity of the cognitive distortion sub-scales. The EMS demonstrate no such disorder specificity, but rather are more general measures of the cognitive processes underpinning interpersonal pathology, and are presumed to be present in all personality disorders.

One of the limitations of the studies reported in this dissertation lies in the greater generalisability of their findings. Psychopathy and narcissism were conceptualised, and measured, as normally distributed traits. Furthermore, these traits were measured within a normal population. The extent, therefore, to which these findings generalise to a clinical population is unknown. However, this methodology is supported by previous findings of research seeking to elucidate these constructs utilising normal populations (Emmons, 1987; Lilienfeld & Andrews, 1996; Lynam, et al. 1999; Ross & Rausch, 2001).

The current studies have highlighted several areas for possible future research in this field. Firstly, the current studies represent the first attempts to systematically clarify in an empirical fashion the conceptual overlap between psychopathy and narcissism. As such, the finding that psychopathy appears to represent a sub-set of narcissism should

be considered a preliminary hypothesis, requiring replication utilising similar methodologies to those employed here. Secondly, the finding in the first study that the EMS scales can be conceptualised in terms of two factors represents a departure from previous studies exploring the factor structure of the YSQ (Young, 1999). Previous research on the hierarchical structure of the schema questionnaire has found that the EMS sub-scales represent five schema domains, not two as found in the current research (Schmidt et al. 1995). Hence, the subsequent analysis reported in Chapter 3 involving these two superordinate factors and the psychopathy and narcissism constructs should be interpreted with caution, and any future research employing the EMS sub-scales should seek to clarify the factor structure of the YSQ.

Finally, any future investigations exploring the cognitive distortions present in psychopathy and narcissism would need to further verify the reliability and validity of the Psychopathic and Narcissistic Cognitive Distortions Questionnaire (PNCDQ) developed for the purposes of this research. Although internal consistency, and hence reliability, of these scales was found to be appropriate for this research, future investigations may wish to examine the relationships between known psychopathic and narcissistic traits and the current cognitive distortion sub-scales within the PNCDQ with a view to establishing their construct validity.

In summary, the results of the studies reported in this dissertation suggest that the current conceptualisation of psychopathy in terms of primary and secondary psychopathic features is valid when viewed from the perspective of both Young's (1999) cognitive-interpersonal theory, and Beck et al.'s (1990) theory of cognitive distortions. The results also support the observed distinction between overt and covert

narcissism. Secondly, this research provides preliminary evidence on the nature of the relationships between the various psychopathy and narcissism constructs, as well as highlighting important areas of similarity among these constructs, such as the observed association between primary psychopathy and overt narcissism, and that between secondary psychopathy and covert narcissism. Indeed, the finding that secondary psychopathy and covert narcissism are related represents a new line of inquiry on the association between psychopathy and narcissism. More research on the association between these two constructs is required to ascertain whether, for instance, secondary psychopathy represents a sub-category of covert narcissism. Finally, this research provides preliminary empirical confirmation of the notion that psychopathy represents a sub-component of narcissism. The implications of this finding are potentially far-reaching. For instance, future revisions of the diagnostic criteria for the diagnosis of these personality disorders may need to take account of these findings. They suggest not only that psychopathy and narcissism are related disorders, but also that the criteria for antisocial personality disorder should be revised to include primary psychopathic traits, and that the criteria for narcissistic personality disorder should be revised to include coverage of the traits associated with covert narcissism.

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**APPENDIX I: DEFINITIONS OF SCHEMA DOMAINS AND EARLY
MALADAPTIVE SCHEMAS**
Source: Young (1999)

DISCONNECTION & REJECTION

(Expectation that one's needs for security, safety, stability, nurturance, empathy, sharing of feelings, acceptance, and respect will not be met in a predictable manner. Typical family origin is detached, cold, rejecting, withholding, lonely, explosive, unpredictable, or abusive.)

1. ABANDONMENT / INSTABILITY

The perceived *instability* or *unreliability* of those available for support and connection.

Involves the sense that significant others will not be able to continue providing emotional support, connection, strength, or practical protection because they are emotionally unstable and unpredictable (e.g., angry outbursts), unreliable, or erratically present; because they will die imminently; or because they will abandon the patient in favour of someone better.

2. MISTRUST / ABUSE

The expectation that others will hurt, abuse, humiliate, cheat, lie, manipulate, or take advantage. Usually involves the perception that the harm is intentional or the result of unjustified and extreme negligence. May include the sense that one always ends up being cheated relative to others or "getting the short end of the stick."

3. EMOTIONAL DEPRIVATION

Expectation that one's desire for a normal degree of emotional support will not be adequately met by others. The three major forms of deprivation are:

A. ***Deprivation of Nurturance***: Absence of attention, affection, warmth, or companionship.

B. ***Deprivation of Empathy***: Absence of understanding, listening, self-disclosure, or mutual sharing of feelings from others.

C. ***Deprivation of Protection***: Absence of strength, direction, or guidance from others.

4. DEFECTIVENESS / SHAME

The feeling that one is defective, bad, unwanted, inferior, or invalid in important respects; or that one would be unlovable to significant others if exposed. May involve hypersensitivity to criticism, rejection, and blame; self-consciousness, comparisons, and insecurity around others; or a sense of shame regarding one's perceived flaws. These flaws may be **private**(e.g., selfishness, angry impulses, unacceptable sexual desires) or **public**(e.g., undesirable

physical appearance, social awkwardness).

5. SOCIAL ISOLATION / ALIENATION

The feeling that one is isolated from the rest of the world, different from other people, and/or not part of any group or community

IMPAIRED AUTONOMY & PERFORMANCE

(Expectations about oneself and the environment that interfere with one's perceived ability to separate, survive, function independently, or perform successfully. Typical family origin is enmeshed, undermining of child's confidence, over-protective, or failing to reinforce child for performing competently outside the family.)

6. DEPENDENCE / INCOMPETENCE

Belief that one is unable to handle one's *everyday responsibilities* in a competent manner, without considerable help from others (e.g., take care of oneself, solve daily problems, exercise good judgment, tackle new tasks, make good decisions). Often presents as helplessness.

7. VULNERABILITY TO HARM OR ILLNESS (Random Events)

Exaggerated fear that "random" catastrophe could strike at any time and that one will be unable to prevent it. Fears focus on one or more of the following: (A) *Medical*: e.g., heart attack, AIDS; (B) *Emotional*: e.g., go crazy; (C) *Natural / Phobic*: elevators, crime, airplanes, earthquakes.

8. ENMESHMENT / UNDEVELOPED SELF

Excessive emotional involvement and closeness with one or more significant others (often parents), at the expense of full individuation or normal social development. Often involves the belief that at least one of the enmeshed individuals cannot survive or be happy without the constant support of the other. May also include feelings of being smothered by, or fused with, others OR insufficient individual identity. Often experienced as a feeling of emptiness and floundering, having no direction, or in extreme cases questioning one's existence.

9. FAILURE

The belief that one has failed, will inevitably fail, or is fundamentally inadequate relative to one's peers, in areas of *achievement* (school, career, sports, etc.). Often involves beliefs that one is stupid, inept, untalented, ignorant, lower in status, less successful than others, etc.

IMPAIRED LIMITS

(Deficiency in internal limits, responsibility to others, or long-term goal-orientation. Leads to difficulty respecting the rights of others, cooperating with others, making commitments, or setting and meeting realistic personal goals. Typical family origin is characterised by permissiveness, overindulgence, lack of direction, or a sense of superiority -- rather than appropriate confrontation, discipline, and limits in relation to taking responsibility, cooperating in a reciprocal manner, and setting goals. In some cases, child may not have been pushed to tolerate normal levels of discomfort, or may not have been given adequate supervision, direction, or guidance.)

10. ENTITLEMENT / GRANDIOSITY

The belief that one is superior to other people; entitled to special rights and privileges; or not bound by the rules of reciprocity that guide normal social interaction. Often involves insistence that one should be able to do or have whatever one wants, regardless of what is realistic, what others consider reasonable, or the cost to others; OR an exaggerated focus on superiority (e.g., being among the most successful, famous, wealthy) -- in order to achieve *power* or *control* (not primarily for attention or approval). Sometimes includes excessive competitiveness toward, or domination of, others: asserting one's power, forcing one's point of view, or controlling the behaviour of others in line with one's own desires---without empathy or concern for others' needs or feelings.

11. INSUFFICIENT SELF-CONTROL / SELF-DISCIPLINE

Pervasive difficulty or refusal to exercise sufficient self-control and frustration tolerance to achieve one's personal goals, or to restrain the excessive expression of one's emotions and impulses. In its milder form, patient presents with an exaggerated emphasis on *discomfort-avoidance*: avoiding pain, conflict, confrontation, responsibility, or overexertion---at the expense of personal fulfilment, commitment, or integrity.

OTHER-DIRECTEDNESS

(An excessive focus on the desires, feelings, and responses of others, at the expense of one's own needs -- in order to gain love and approval, maintain one's sense of connection, or avoid retaliation. Usually involves suppression and lack of awareness regarding one's own anger and natural inclinations. Typical family origin is based on conditional acceptance: children must suppress important aspects of themselves in order to gain love, attention, and approval. In many such families, the parents' emotional needs and desires -- or social acceptance and status -- are valued more than the unique needs and feelings of each child.)

12. SUBJUGATION

Excessive surrendering of control to others because one feels *coerced* - - usually to avoid anger, retaliation, or abandonment. The two major forms of subjugation are:

A. ***Subjugation of Needs***: Suppression of one's preferences, decisions, and desires.

B. ***Subjugation of Emotions***: Suppression of emotional expression, especially anger.

Usually involves the perception that one's own desires, opinions, and feelings are not valid or important to others. Frequently presents as excessive compliance, combined with hypersensitivity to feeling trapped. Generally leads to a build up of anger, manifested in maladaptive symptoms (e.g., passive-aggressive behaviour, uncontrolled outbursts of temper, psychosomatic symptoms, withdrawal of affection, "acting out", substance abuse).

13. SELF-SACRIFICE

Excessive focus on *voluntarily* meeting the needs of others in daily situations, at the expense of one's own gratification. The most common reasons are: to prevent causing pain to others; to avoid guilt from feeling selfish; or to maintain the connection with others perceived as needy . Often results from an acute sensitivity to the pain of others. Sometimes leads to a sense that one's own needs are not being adequately met and to resentment of those who are taken care of. (Overlaps with concept of co-dependency.)

14. APPROVAL-SEEKING / RECOGNITION-SEEKING

Excessive emphasis on gaining approval, recognition, or attention from other people, or fitting in, at the expense of developing a secure and true sense of self. One's sense of esteem is dependent primarily on the reactions of others rather than on one's own natural inclinations. Sometimes includes an overemphasis on status, appearance, social acceptance, money, or achievement -- as means of gaining *approval, admiration, or attention* (not primarily for power or control). Frequently results in major life decisions that are inauthentic or unsatisfying; or in hypersensitivity to rejection.

OVERVIGILANCE & INHIBITION

(Excessive emphasis on controlling one's spontaneous feelings, impulses, and choices in order to avoid making mistakes OR on meeting rigid, internalised rules and expectations about performance and ethical behaviour -- often at the expense of happiness, self-expression, relaxation, close relationships, or health. Typical family origin is grim (and sometimes punitive): performance, duty, perfectionism, following rules, and avoiding mistakes predominate over pleasure, joy, and relaxation. There is usually an undercurrent of pessimism and worry---that things could fall apart if one fails to be vigilant and careful at all times.)

15. **NEGATIVITY / VULNERABILITY TO ERROR** (Controllable Events)

A pervasive, lifelong focus on the negative aspects of life (pain, death, loss, disappointment, conflict, guilt, resentment, unsolved problems, potential mistakes, betrayal, things that could go wrong, etc.) while minimising or neglecting the positive or optimistic aspects OR an exaggerated expectation-- in a wide range of work, financial, or interpersonal situations that are typically viewed as "controllable"-- that things will go seriously wrong, or that aspects of one's life that seem to be going well will fall apart at any time. Usually involves an inordinate fear of making mistakes that might lead to: financial collapse, loss, humiliation, being trapped in a bad situation, or loss of control. Because potential negative outcomes are exaggerated, these patients are frequently characterised by chronic worry, vigilance, pessimism, complaining, or indecision.

16. **OVERCONTROL / EMOTIONAL INHIBITION**

The excessive inhibition of spontaneous action, feeling, or communication -- usually to create a sense of security and predictability; or to avoid making mistakes, disapproval by others, catastrophe and chaos, or losing control of one's impulses. The most common areas of excessive control involve: (a) inhibition of *anger* & aggression; (b) compulsive *order* & planning; (c) inhibition of *positive impulses* (e.g., joy, affection, sexual excitement, play); (d) excessive adherence to routine or ritual; (e) difficulty expressing *vulnerability* or *communicating* freely about one's feelings, needs, etc.; or (f) excessive emphasis on *rationality* while disregarding emotional needs. Often the overcontrol is extended to others in the patient's environment.

17. **UNRELENTING STANDARDS / HYPERCRITICALNESS**

The underlying belief that one must strive to meet very high *internalised standards* of behaviour and performance, usually to avoid criticism. Typically results in feelings of pressure or difficulty slowing down; and in hypercriticalness toward oneself and others. Must involve significant impairment in: pleasure, relaxation, health, self-esteem, sense of accomplishment, or satisfying relationships.

Unrelenting standards typically present as: (a) *perfectionism*, inordinate attention to detail, or an underestimate of how good one's own performance is relative to the norm; (b) *rigid rules* and "shoulds" in many areas of life, including unrealistically high moral, ethical, cultural, or religious precepts; or (c) preoccupation with *time and efficiency*, so that more can be accomplished.

18. **PUNITIVENESS**

The belief that people should be harshly punished for making mistakes. Involves the tendency to be angry, intolerant, punitive, and impatient with those people (including oneself) who do not meet one's expectations or standards. Usually includes difficulty forgiving mistakes in oneself or others, because of a reluctance to consider extenuating circumstances, allow for human imperfection, or empathise with feelings.

APPENDIX II: YOUNG SCHEMA QUESTIONNAIRE – SHORT FORM

Source: Young (1999)

Section 1 - Y S Q -Short

INSTRUCTIONS: Listed below are statements that a person might use to describe himself or herself. Please read each statement and decide how well it describes you. When you are not sure, base your answer on what you emotionally **feel**, not on what you **think** to be true. Choose the **highest rating from 1 to 6** that describes you and write the number in the space before the statement.

RATING SCALE:

- 1 = Completely untrue of me
- 2 = Mostly untrue of me
- 3 = Slightly more true than untrue
- 4 = Moderately true of me
- 5 = Mostly true of me
- 6 = Describes me perfectly

1. _____ Most of the time, I haven't had someone to nurture me, share him/herself with me, or care deeply about everything that happens to me.
2. _____ In general, people have not been there to give me warmth, holding, and affection.
3. _____ For much of my life, I haven't felt that I am special to someone.
4. _____ For the most part, I have not had someone who really listens to me, understands me, or is tuned into my true needs and feelings.
5. _____ I have rarely had a strong person to give me sound advice or direction when I'm not sure what to do.
6. _____ I find myself clinging to people I'm close to because I'm afraid they'll leave me.
7. _____ I need other people so much that I worry about losing them.
8. _____ I worry that people I feel close to will leave me or abandon me.
9. _____ When I feel someone I care for pulling away from me, I get desperate.
10. _____ Sometimes I am so worried about people leaving me that I drive them away.
11. _____ I feel that people will take advantage of me.
12. _____ I feel that I cannot let my guard down in the presence of other people, or else they will intentionally hurt me.
13. _____ It is only a matter of time before someone betrays me.

14. _____ I am quite suspicious of other people's motives.
15. _____ I'm usually on the lookout for people's ulterior motives.
16. _____ I don't fit in.
17. _____ I'm fundamentally different from other people.
18. _____ I don't belong; I'm a loner.
19. _____ I feel alienated from other people.
20. _____ I always feel on the outside of groups.
21. _____ No man/woman I desire could love me once he/she saw my defects.
22. _____ No one I desire would want to stay close to me if he/she knew the real me.
23. _____ I'm unworthy of the love, attention, and respect of others.
24. _____ I feel that I'm not lovable.
25. _____ I am too unacceptable in very basic ways to reveal myself to other people.
26. _____ Almost nothing I do at work (or school) is as good as other people can do.
27. _____ I'm incompetent when it comes to achievement.
28. _____ Most other people are more capable than I am in areas of work and achievement.
29. _____ I'm not as talented as most people are at their work.
30. _____ I'm not as intelligent as most people when it comes to work (or school).
31. _____ I do not feel capable of getting by on my own in everyday life.
32. _____ I think of myself as a dependent person, when it comes to everyday functioning.
33. _____ I lack common sense.
34. _____ My judgment cannot be relied upon in everyday situations.
35. _____ I don't feel confident about my ability to solve everyday problems that come up.
36. _____ I can't seem to escape the feeling that something bad is about to happen.
37. _____ I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.
38. _____ I worry about being attacked.
39. _____ I worry that I'll lose all my money and become destitute.
40. _____ I worry that I'm developing a serious illness, even though nothing serious has been diagnosed by a physician.
41. _____ I have not been able to separate myself from my parent(s), the way other people my age seem to.

42. _____ My parent(s) and I tend to be overinvolved in each other's lives and problems.
43. _____ It is very difficult for my parent(s) and me to keep intimate details from each other, without feeling betrayed or guilty.
44. _____ I often feel as if my parent(s) are living through me--I don't have a life of my own.
45. _____ I often feel that I do not have a separate identity from my parents or partner.
46. _____ I think if I do what I want, I'm only asking for trouble.
47. _____ I feel that I have no choice but to give in to other peoples' wishes, or else they will retaliate or reject me in some way.
48. _____ In relationships, I let the other person have the upper hand.
49. _____ I've always let others make choices for me, so I really don't know what I want for myself.
50. _____ I have a lot of trouble demanding that my rights be respected and that my feelings be taken into account.
51. _____ I'm the one who usually ends up taking care of the people I'm close to.
52. _____ I am a good person because I think of others more than of myself.
53. _____ I'm so busy doing for the people that I care about that I have little time for myself.
54. _____ I've always been the one who listens to everyone else's problems.
55. _____ Other people see me as doing too much for others and not enough for myself.
56. _____ I am too self-conscious to show positive feelings to others (e.g., affection, showing I care).
57. _____ I find it embarrassing to express my feelings to others.
58. _____ I find it hard to be warm and spontaneous.
59. _____ I control myself so much that people think I am unemotional.
60. _____ People see me as uptight emotionally.
61. _____ I must be the best at most of what I do; I can't accept second best.
62. _____ I try to do my best; I can't settle for "good enough."
63. _____ I must meet all my responsibilities.
64. _____ I feel there is constant pressure for me to achieve and get things done.
65. _____ I can't let myself off the hook easily or make excuses for my mistakes.

66. _____ I have a lot of trouble accepting "no" for an answer when I want something from other people.
67. _____ I'm special and shouldn't have to accept many of the restrictions placed on other people.
68. _____ I hate to be constrained or kept from doing what I want.
69. _____ I feel that I shouldn't have to follow the normal rules and conventions other people do.
70. _____ I feel that what I have to offer is of greater value than the contributions of others.
71. _____ I can't seem to discipline myself to complete routine or boring tasks.
72. _____ If I can't reach a goal, I become easily frustrated and give up.
73. _____ I have a very difficult time sacrificing immediate gratification to achieve a long-range goal.
74. _____ I can't force myself to do things I don't enjoy, even when I know it's for my own good.
75. _____ I have rarely been able to stick to my resolutions.
76. _____ If other people make mistakes they should be punished.
77. _____ It makes me angry when others don't meet my expectations.
78. _____ I am generally intolerant of people who can't achieve certain (my) standards.
79. _____ I become impatient when others are not able to 'cope'.
80. _____ I really give myself a hard time when I make mistakes.
81. _____ It is important for others to think highly of me.
82. _____ I must achieve or make a name for myself, otherwise I am a failure.
83. _____ I don't like it if people aren't attracted to me as a person.
84. _____ People will only admire me if I am successful.
85. _____ If other people don't like / approve of me, it gets me down.

APPENDIX III: LEVENSON'S SELF-REPORT PSYCHOPATHY SCALE

Source: Levenson, Kiel & Fitzpatrick, (1995)

Section 2 - LSRP

INSTRUCTIONS: Listed below are 25 statements that a person might use to describe themselves. Please *read each statement carefully* and *decide how well it describes you*. When you are not sure, base your answer on what you emotionally **feel**, rather than what you **think** to be true. Choose the **highest rating from 1 to 4** that best describes you and write the number in the space before the statement.

RATING SCALE:

Strongly disagree	= 1
Disagree	= 2
Agree	= 3
Strongly agree	= 4

1. _____ Success is based on survival of the fittest; I am not concerned about the losers.
2. _____ My main purpose in life is getting as many goodies as I can.
3. _____ Making a lot of money is my most important goal.
4. _____ For me, what's right is whatever I can get away with.
5. _____ I enjoy manipulating other people's feelings.
6. _____ I often admire a really clever scam.
7. _____ I would be upset if my success came at someone else's expense.
8. _____ People who are stupid enough to get ripped off usually deserve it.
9. _____ I tell other people what they want to hear so that they will do what I want them to do.
10. _____ I feel bad if my words or actions cause someone else to feel emotional pain.
11. _____ Looking out for myself is my top priority
12. _____ Cheating is not justified because it is unfair to others.
13. _____ Even if I were trying to sell something, I wouldn't lie about it.
14. _____ In today's world, I feel justified in doing anything I can get away with to succeed.
15. _____ I let others worry about higher values, my main concern is with the bottom line.
16. _____ I make a point of trying not to hurt others in pursuit of my goals.

17. _____ I quickly lose interest in the tasks I start.
18. _____ When I get frustrated, I often “let off steam” by blowing my top.
19. _____ Before I do anything, I carefully consider the possible consequences
20. _____ I am often bored.
21. _____ Most of my problems are due to the fact that other people just don't understand me.
22. _____ I find myself in the same kinds of trouble, time after time.
23. _____ I don't plan anything very far in advance.
24. _____ I find that I am able to pursue one goal for a long time.
25. _____ I have been in a lot of shouting matches with other people.

**APPENDIX IV: NARCISSISTIC PERSONALITY INVENTORY
(OVERT NARCISSISM MEASURE)
Source: Raskin and Hall (1979)
Section 4 - NPI**

Please indicate whether or not each of the following statements apply to you by **circling** the **True or False** response for each statement. **Only circle one answer (ie either True OR False) for each statement.**

- | | |
|--|--------------|
| 1. I would prefer to be a leader. | True / False |
| 2. I see myself as a good leader. | True / False |
| 3. I will be a success. | True / False |
| 4. People always seem to recognise my authority. | True / False |
| 5. I have a natural talent for influencing people. | True / False |
| 6. I am assertive. | True / False |
| 7. I like to have authority over other people. | True / False |
| 8. I am a born leader. | True / False |
| 9. I rarely depend on anyone else to get things done. | True / False |
| 10. I like to take responsibility for making decisions. | True / False |
| 11. I am more capable than other people. | True / False |
| 12. I can live my life in any way I want to. | True / False |
| 13. I always know what I am doing. | True / False |
| 14. I am going to be a great person. | True / False |
| 15. I am an extraordinary person. | True / False |
| 16. I know that I am good because everybody keeps telling me so. | True / False |
| 17. I like to be complimented. | True / False |
| 18. I think I am a special person. | True / False |
| 19. I wish somebody would someday write my biography. | True / False |
| 20. I am apt to show off if I get the chance. | True / False |

21. Modesty doesn't become me. True / False
22. I get upset when people don't notice how I look when I go out in public. True / False
23. I like to be the centre of attention. True / False
24. I would do almost anything on a dare. True / False
25. I really like to be the centre of attention. True / False
26. I like to start new fads and fashions. True / False
27. I can read people like a book. True / False
28. I can make anybody believe anything I want them to. True / False
29. I find it easy to manipulate people. True / False
30. I can usually talk my way out of anything. True / False
31. Everybody likes to hear my stories. True / False
32. I like to look at my body. True / False
33. I like to look at myself in the mirror. True / False
34. I like to display my body. True / False
35. I will never be satisfied until I get all that I deserve. True / False
36. I expect a great deal from other people. True / False
37. I want to amount to something in the eyes of the world. True / False
38. I have a strong will to power. True / False
39. I insist upon getting the respect that is due me. True / False
40. If I ruled the world it would be a much better place. True / False

**APPENDIX V: HYPERSENSITIVITY NARCISSISM SCALE
(COVERT NARCISSISM MEASURE)
Source: Hendin and Cheek, (1997)**

Section 3 - HSNS

Please indicate whether or not each of the following statements apply to you by **circling** the **True or False** response for each statement. **Only circle one answer (ie either True OR False) for each statement.**

1. I can become entirely absorbed in thinking about my personal affairs, my health, my cares or my relations to others. True / False
2. My feelings are easily hurt by ridicule or by the slighting remarks of others. True / False
3. When I enter a room I often become self-conscious and feel that the eyes of others are upon me. True / False
4. I dislike sharing the credit of an achievement with others. True / False
5. I dislike being with a group unless I know that I am appreciated by at least one of those present. True / False
6. I feel that I am temperamentally different from most people. True / False
7. I often interpret the remarks of others in a personal way. True / False
8. I easily become wrapped up in my own interests and forget the existence of others. True / False
9. I feel that I have enough on my hands without worrying about other people's troubles. True / False
10. I am secretly "put out" when other people come to me with their troubles, asking me for my time and sympathy. True / False

**APPENDIX VI: THE PSYCHOPATHIC AND NARCISSISTIC COGNITIVE
DISTORTIONS QUESTIONNAIRE**

Read the following statements and indicate the degree to which you agree with each one. Use the following scale to allocate a rating from 1 to 5 to each statement where:

- 1 = Agree**
- 2 = Agree somewhat**
- 3 = Neither agree / disagree**
- 4 = Somewhat disagree**
- 5 = Disagree**

1. It's the little special things I do that make me stand out from the rest _____
2. Other people just don't have a clue _____
3. I am either great and omnipotent, or powerless, there can be no middle ground ... _____
4. I'm above the rules _____
5. Others should respect me, or they are wrong _____
6. I always wear something special each day which makes me stand out from the crowd _____
7. The views of others are irrelevant to my decisions _____
8. Undesirable consequences don't matter to me _____
9. I always notice how I am different from others in ways that make me feel special _____
10. I know when things will go well for me _____
11. I always know what's going on, because I sense it _____
12. Unless I'm at the centre of things, then I feel worthless _____
13. If someone is not grateful for my input, they must be stupid _____
14. People are generally morons _____
15. Other people don't possess my insight into things _____
16. If others disagree with me, I know I'm right _____

17. I usually never fail _____
18. I can justify the consequences of my actions on the grounds that I always know what to do _____
19. I can sense how things will go in different situations _____
20. I am superior to others and they should acknowledge this _____
21. If I'm upset by something someone else does, then they should re-evaluate what they're doing. _____
22. When I talk in group discussions, the things I say really make the discussion worthwhile _____
23. Without my input, things just wouldn't get done _____
24. I can "get things done" better than others _____
25. My thoughts are usually accurate, simply because they occur to me _____
26. The little things I do mean a lot to others _____
27. Nothing bad ever happens to me _____
28. When I feel bad in a situation, I know there's something wrong _____
29. How I feel about what I do reflects what's really going on _____
30. I can read people like a book _____
31. I know that others don't 'get it' the way I do _____
32. No matter what happens, I will cope _____
33. Anyone who doesn't listen to me is a loser _____
34. If I get annoyed, I know someone must be to blame _____
35. Others should do as I ask, or they are not worth knowing _____
36. Since I am special, I deserve special, privileges _____
37. Often, even though my input is not great, I know I have an influence on things. _____
38. If I don't like something, I shouldn't have to do it. _____

39. When I look in the mirror I can see the little things that make me special _____
40. Whatever I think must be true _____
41. My successes are due to me, others' (successes) are due to luck _____
42. If what I do affects other people, it doesn't really bother me _____
43. Nothing will ever go wrong for me _____
44. If others think differently to me they must be wrong _____
45. I know when people understand my point of view _____
46. How I feel about what I do is how other smart people feel about it _____
47. People that don't see my point of view are idiots _____
48. I think, therefore I know _____
49. There are rarely negative consequences to my actions _____
50. My future is absolutely bright _____
51. I can always tell when others are with me, (it shows) _____
52. Others can't bring about change the way I can _____
53. If others don't understand me, they're stupid _____
54. I know I am right, because I feel right about what I do _____
55. You're either with me, or you're against me _____
56. If people don't see things the way I do, I get angry, because I always know what's going on _____
57. When I feel good about a situation, I know I'm on the right track _____
58. I am always / generally right _____
59. If others are upset by what I do or say, they're just being too sensitive _____
60. No matter what happens, it wouldn't worry me _____

61. Whatever happens as a result of my behaviour won't have a negative impact on me _____
62. No one will ever be able to be as good as me _____
63. Others simply can't measure up to my standards _____
64. I always make good choices _____
65. No matter what they do, no one can achieve what I have _____
66. I am the best at what I do _____
67. If something isn't done properly, it's not worth doing at all _____
68. I rarely make wrong decisions _____
69. If someone doesn't like me I can tell _____
70. If I can't be the best, I'd rather not try at all _____
71. If what I do leads to problems for others, it doesn't bother me _____
72. If I do something, others should realise it is correct _____
73. I never question my thoughts about things, because I usually know what's going on _____
74. I am always in control _____
75. I don't care what the consequences of my actions are _____
76. Much as others may try, they will never be as good as me _____

**APPENDIX VII: TABLE OF COGNITIVE DISTORTION ITEMS INCLUDED
IN PNCDQ, AND THOSE RETAINED IN ANALYSIS**

Cognitive Distortion Items	TPQ item number	Items retained
Narcissistic Distortions		
Dichotomous thinking		
1. Unless I'm at the centre of things, then I feel worthless.	12	*
2. You're either with me, or you're against me	55	*
3. If something isn't done properly, it's not worth doing at all	67	
4. If I can't be the best, I'd rather not try at all	70	
5. Others should respect me, or they are wrong	5	
6. Others should do as I ask, or they are not worth knowing	35	*
7. I am either great and omnipotent, or powerless, there can be no middle ground ...	3	*
8. If someone is not grateful for my input, they must be stupid	13	*
Jumping to conclusions		
1. I can always tell when others are with me, (it shows)	51	*
2. If someone doesn't like me I can tell	69	*
3. I can read people like a book	30	
4. I know when people understand my point of view	45	*
5. I know when things will go well for me	10	*
6. My future is absolutely bright	50	*
7. Nothing will ever go wrong for me	43	
8. No one will ever be able to be as good as me	62	
Magnification		
1. It's the little special things I do that make me stand out from the rest	1	*
2. Often, even though my input is not great, I know I have an influence on things.	37	*
3. The little things I do mean a lot to others	26	*
4. When I look in the mirror I can see the little things that make me special	39	*
5. I always wear something special each day which makes me stand out from the crowd	6	
6. When I talk in group discussions, the things I say really make the discussion worthwhile	22	*
7. I always notice how I am different from others in ways that make me feel special	9	*
8. Without my input, things just wouldn't get done	23	
Labelling		
1. People that don't see my point of view are idiots	47	*
2. If others don't understand me, they're stupid	53	*
3. Anyone who doesn't listen to me is a loser	33	*
4. Other people just don't have a clue	2	*
5. People are generally morons	14	*
6. I know that others don't 'get it' the way I do	31	

Cognitive Distortion Items	TPQ item number	Items retained
Narcissistic Distortions (continued)		
Justification		
1. Since I am special, I deserve special, privileges	36	*
2. I am superior to others and they should acknowledge this	20	*
3. I'm above the rules	4	*
4. If I do something, others should realise it is correct	72	
5. I can justify the consequences of my actions on the grounds that I always know what to do	18	*
6. If others are upset by what I do or say, they're just being too sensitive	59	*
7. If I'm upset by something someone else does, then they should re-evaluate what they're doing.	21	*
8. If I don't like something, I shouldn't have to do it.	38	*
Antisocial Distortions		
Thinking is believing		
1. My thoughts are usually accurate, simply because they occur to me	25	*
2. Whatever I think must be true	40	*
3. I think, therefore I know	48	*
4. If others think differently to me they must be wrong	44	*
5. If others disagree with me, I know I'm right	16	*
6. I never question my thoughts about things, because I usually know what's going on	73	*
7. If people don't see things the way I do, I get angry, because I always know what's going on	56	*
Personal infallibility		
1. I always make good choices	64	*
2. I rarely make wrong decisions	68	*
3. I usually never fail	17	*
4. I am the best at what I do	66	*
5. No matter what happens, I will cope	32	
6. Nothing bad ever happens to me	27	
7. I am always in control	74	*
8. I am always / generally right	58	*

Cognitive Distortion Items	TPQ item number	Items retained
Antisocial Distortions (continued)		
Feelings make facts (emotional reasoning)		
1. I know I am right, because I feel right about what I do	54	*
2. I always know what's going on, because I sense it	11	*
3. How I feel about what I do reflects what's really going on	29	*
4. How I feel about what I do is how other smart people feel about it	46	*
5. I can sense how things will go in different situations	19	*
6. When I feel bad in a situation, I know there's something wrong	28	*
7. When I feel good about a situation, I know I'm on the right track	57	*
8. If I get annoyed, I know someone must be to blame	34	*
The impotence of others (minimisation)		
1. Much as others may try, they will never be as good as me	76	*
2. Others simply can't measure up to my standards	63	*
3. No matter what they do, no one can achieve what I have	65	*
4. My successes are due to me, others' (successes) are due to luck	41	*
5. The views of others are irrelevant to my decisions	7	
6. Other people don't possess my insight into things	15	*
7. Others can't bring about change the way I can	52	*
8. I can "get things done" better than others	24	*
Low impact consequences		
1. Undesirable consequences don't matter to me	8	
2. There are rarely negative consequences to my actions	49	
3. I don't care what the consequences of my actions are	75	*
4. Whatever happens as a result of my behaviour won't have a negative impact on me	61	*
5. No matter what happens, it wouldn't worry me	60	*
6. If what I do affects other people, it doesn't really bother me	42	*
7. If what I do leads to problems for others, it doesn't bother me	71	*

APPENDIX VIII: PARTICIPANT INFORMATION SHEET - STUDY 2

AUSTRALIAN NATIONAL UNIVERSITY

Thinking Styles Research – Participant Information Sheet

My name is Cristian Torres and I am conducting a study that assesses thinking styles in people with different personality types.

To ensure that your answers remain anonymous and cannot be traced back to you, please do not write your name on the questionnaire. The questionnaire takes approximately 30 minutes to complete. You are able to withdraw from the study at any point in time.

If you agree to participate in the research, you will be asked to sign a consent form. To ensure anonymity, this consent form will be placed in an envelope, separate from your questionnaire. In addition, the questionnaires and consent forms will be kept separately within a secure office in the School of Psychology.

The results of this research will be presented in summary form only, that is, individual scores will not be used, and you will not be identified in any way. Data in aggregate form only will be used for the purpose of my doctoral thesis and any subsequent publications.

Thank you for your interest and participation in this research.

If you have any further concerns regarding your participation in this study, please feel free to contact any of the following people:

Mr Cristian Torres (School of Psychology)
Email: cristian.torres@anu.edu.au
Phone: (02) 6125 0509

Dr Jeff Ward (School of Psychology)
Email: jeff.ward@anu.edu.au
Phone: (02) 6125 4208

Ms Sylvia Deutsch (Human Ethics Officer)
Email: human.ethics.officer@anu.edu.au
Phone: (02) 6125 2900

APPENDIX IX: PARTICIPANT CONSENT FORM – STUDY 2

AUSTRALIAN NATIONAL UNIVERSITY

School of Psychology

Dear Participant,

As part of student research projects in psychology being conducted by the School of Psychology at the Australian National University we are planning to conduct a study assessing thinking styles in people with different personality types. This protocol has received approval from the University Ethics Committee (Protocol Number – 2001/115).

Could you please complete the consent form below to acknowledge that you agree to participate in the study.

Participant Consent Form:

I, the undersigned, have read the participant information sheet and willingly consent to participate in a study investigating thinking styles in people with different personality types. I understand that the questionnaire will take approximately 30 minutes to complete. I agree to allow my data to be used in an aggregate form for the purpose of Cristian Torres' doctoral thesis and any subsequent publications. I understand that I can withdraw from the study at any point, and that I will receive an explanation of the details and purpose of the research at the end of the study.

Initial: _____ **Date:** _____

If you have any further concerns regarding your participation in this study, please feel free to contact any of the following people:

Mr Cristian Torres (School of Psychology)
Email: cristian.torres@anu.edu.au
Phone: (02) 6125 0509

Dr Jeff Ward (School of Psychology)
Email: jeff.ward@anu.edu.au
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Ms Sylvia Deutsch (Human Ethics Officer)
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