Self-esteem in depression and anxiety
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1. Introduction
“Few variables studied by psychologists need less of an introduction than self-esteem”

Self-Esteem, Depression, and Anxiety

A General Introduction to Self-esteem

Self-esteem - as Zeigler-Hill and Jordan point out, is ubiquitous in both research and lay conversation rendering an introduction seem unnecessary. The importance of self-esteem is evident to the authors of many self-help books and online articles on the topic. Many well-known fiction authors have also been chipping in with their insights, some of whom are quoted throughout this introduction. There is a general consensus in research that self-esteem refers to the extent that one evaluates oneself as positive or negative, either broadly speaking (global self-esteem) or in a specific context (e.g., work, relationships; domain-specific self-esteem). However, it seems more complex than this, as how (often) it is measured appears to tap into different aspects of self-esteem. Furthermore, the emergence of various theoretical dual-processing models (see Smith & DeCoster, 2000 for a review) that have subsequently been applied to self-esteem, has spurred theories that seek to dissect this once simple, and widely-accepted construct. However, the basic understanding that self-esteem refers to the extent of positivity with regard to the self remains consistent. Pivotal across facets is the highly subjective nature of self-esteem, and levels are not necessarily reflective of a person’s true value or ability (Zeigler-Hill, 2013). As such, a grade-A student may have lower self-esteem than the student who failed the exam.

Self-esteem is thought to provide two basic functions “(1) it is involved in the transfer of information between the individual and the social environment; and (2) it offers a protective function that buffers individuals from negative experiences” (pp. 13, Zeigler-Hill, 2013). Self-esteem can therefore be thought of as a filter through which external information passes through and influences how we interpret our surroundings and react (e.g., mood, behaviour). While high self-esteem may offer protection against
negative experiences, it is feasible that low self-esteem may exacerbate slightly negative or even relatively neutral situations. Indeed, self-esteem was found to moderate response to rejection (Ford & Collins, 2010), and those with low self-esteem interpreted ambiguous phrases more negatively (Tafarodi, 1998). Further, individuals with high self-esteem are argued to partake more actively in their surroundings in order to pursue further self-enhancement, while individuals with low self-esteem partake considerably less in order to protect what little self-esteem they have (Baumeister, Tice, & Hutton, 1989). As such, low self-esteem can be a self-fulfilling prophecy, and its persistence poses an influence on many aspects of daily life. Low self-esteem also appears to be persistent, with levels of self-esteem being consistent from childhood, to adolescence, to adulthood, and older age (e.g., Orth, Maes, & Schmitt, 2015).

*Self-esteem in Depression & Anxiety*

Given that low self-esteem moderates behaviour and interpretation of information in the environment, it is unsurprising that low self-esteem is a prominent aspect in many models of psychopathology. The present thesis focusses on depression and anxiety as they are two of the most prevalent health disorders. For depression, the DSM recognises feelings of worthlessness as one of the possible criteria in identifying an episode of major depressive disorder (MDD; APA, 2013). Indeed, low self-esteem may even lead to depression given that periods of stress often precedes depression onset (Hammen, 2005), and high self-esteem is considered to provide individuals with protection against negative experiences. Further, cognitive models of depression highlight that negative biases in information processing give rise to negative self-attributions (Beck, 2002), both specific (e.g., self-depression associations) and general (e.g., low self-esteem). Therefore, the relationship between depression and low self-esteem appears to be reciprocal, making low self-esteem and depression persistent. Depression is noted for its high lifetime prevalence rates (e.g., 16.6% for MDD; Kessler et al., 2005), incidence rates, (e.g., 1 in 20 within a year; WHO, 2012), sometimes difficult to treat nature (e.g., 34% treatment nonresponse, Van, Dekker, Peen, van Aalst, & Schoevers, 2008; although spontaneous remission rates have been reported as high as 52% within three months,
Posternak et al., 2006), and, when remittance and recovery are achieved, relapse and recurrence rates of 42% (within 20 years; Hardeveld, Spijker, Graaf, Nolen, & Beekman, 2013), and even 85% have been reported (within 15 years; Mueller et al., 1999). A meta-analysis of longitudinal studies suggests that low self-esteem is not only an antecedent of depression, but can also be a consequence of depression (Sowislo & Orth, 2013). This has led to some suggesting that residual low levels of self-esteem following an episode of depression may partly explain the high relapse rates (i.e., the scar model for low self-esteem; Zeigler-Hill, 2011).

The lifetime prevalence rates for any anxiety disorder were reported to be even higher than the rates for any depressive disorder (28.8% vs. 20.8%; Kessler et al., 2005). Anxiety disorders (AD), too, have been reported to have a persistent aetiology (e.g., 35% remission rate in ten years for social anxiety disorder), with high rates of recurrence following recovery (e.g., 34% in ten years for social anxiety disorder; Keller, 2006). Some have argued that low self-esteem should be more relevant for depression than for anxiety, as the former is related to both a decrease in positive affect and an increase in negative affect, while anxiety is mostly characterised by an increase in negative affect alone. Given that both positive and negative affect is assumed to influence self-esteem, self-esteem should be lower in depression (see Sowislo & Orth, 2013, for a review). Despite this, theories linking self-esteem and anxiety abound. For example, high levels of self-esteem have been argued to act as an anxiety buffer (e.g., terror management theory; Solomon, Greenberg, & Pyszczynski, 1991). Indeed, increasing levels of self-esteem reduced anxiety amongst participants anticipating a shock (Greenberg et al., 1992), and self-esteem was found to be positively associated with resting vagal tone (associated with the downregulation of physiological threat; Martens et al., 2010). While low self-esteem is not a defining criterion in the DSM for any anxiety disorder (APA, 2013), distortions in how people view themselves, presumably fuelled by low self-esteem, is thought to play a causal role in maintaining social anxiety disorder (Hirsch, Clark, Mathews, & Williams, 2003). Furthermore, many models of anxiety disorders highlight the role of increased self-focused attention (e.g., Ingram, 1990). Low self-esteem, therefore, seems to play a role in anxiety as well as
depression. However, research would suggest that self-esteem is more complex than how it was once considered, and research would suggest that not all facets of self-esteem are related to depression and anxiety.

Before continuing onto a description of several different facets of self-esteem, it is important to acknowledge that low self-esteem has been argued to be a transdiagnostic factor common to both depression and anxiety, and that other factors may determine which disorder manifests (de Jong, Sportel, de Hullu, & Nauta, 2012). If low self-esteem does indeed represent a transdiagnostic factor, it may explain the high rates of comorbidity often observed between and within depression and anxiety disorders (e.g., 57% had more than one anxiety and/or mood disorder, Brown, Campbell, Lehman, Grisham, & Mancill, 2001). Indeed, a cognitive behavioural therapy targeting self-esteem by focusing on, for example, enhancing self-acceptance was found to also have beneficial effects on both depressive and anxious symptomatology (Waite, McManus, & Shafran, 2012).

It seems necessary to differentiate comorbid forms of depression and anxiety from relatively pure (singular) forms of the disorders, as comorbid depression and anxiety is related to more treatment resistance, characterised by a worse prognosis (Penninx et al., 2011), and an increased likeliness to report suicidal ideation (Goodwin et al., 2001). Furthermore, the presence of both cognitive vulnerabilities for depression and anxiety led to severer symptomatology than the additive effects of each vulnerability alone (Kleiman & Riskind, 2012), suggesting that comorbidity is more than the sum of its parts. As such, comorbid depression and anxiety may represent a disorder pathway with different causal and maintaining factors than depression or anxiety alone, and therefore self-esteem may manifest and have influence in different ways. If self-esteem is a transdiagnostic factor common across depression and anxiety, thus increasing the likeliness of comorbidity, self-esteem may be a feasible target for interventions and preventions for both disorders, and prevent the development of comorbidity.
Chapter One

“A man cannot be comfortable without his own approval”
(Mark Twain)

The Different Sides of Self-Esteem

Self-Reported Self-Esteem

Attempts to capture self-esteem have mostly been done using self-report questionnaires. One of the most utilised questionnaires in self-esteem research, and used throughout this thesis (chapters 2 – 6), is the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1989). Questions are asked, non-specific to a particular context, to what extent participants like themselves and feel that they are capable, sometimes in comparison to others. One issue with self-report measures, like the RSES, are biases which may influence responses given in a systematic way and irrespective of the construct that is being targeted (e.g., demand, selection and response bias; Baumeister et al., 1989). As such, questionnaires are not “pure” measures of self-esteem, and self-report measures can be considered as measuring the self that is endorsed (Zeigler-Hill & Jordan, 2010), or a “self-presentation orientation” (Baumeister et al., 1989). Low self-reported self-esteem has consistently been found in both depression and anxiety (e.g., Izgiç, Akyüz, Doğan, & Kuğu, 2004). Further, a meta-analysis of longitudinal studies suggested that self-reported self-esteem predicted symptoms of depression and anxiety, and, to a lesser extent, vice versa (Sowislo & Orth, 2013). As such, the presence of low self-reported self-esteem in depression and anxiety is fairly indisputable. Self-report measures of self-esteem assume that all evaluations concerning the self are available for introspection. However, within the last two decades, an interest within research has emerged to capture self-esteem evaluations at an earlier stage preceding the influence of biases and other processes, and potentially eluding any introspection.

Implicit Self-Esteem

Dual-processing models of information evaluation highlight a distinction between two memory systems: one which is “slow learning” and effortless to retrieve, and the other can form unique representations but
In introduction, requires more effort (Smith & DeCoster, 2000). The former is implicit in that it requires no effortful processes or motivation to trigger, and is mostly a case of pattern completion (Beevers, 2005). Through repeated experience (Beevers, 2005), and the simultaneous activation of concepts (Greenwald et al., 2002), associations between constructs form in the implicit system, meaning that certain constructs and attributions (e.g., “ice” and “cold”) are more strongly associated than other certain combinations (e.g., “ice” and “oily”) within memory. When associations are particularly strong, activated constructs (e.g., “ice”) may lead to the activation of other associated attributes and constructs (e.g., “cold”; Fazio & Olson, 2003; Greenwald et al., 2002). The explicit system, on the other hand, does require motivation and cognitive resources (e.g., executive control; Beevers, 2005), and uses “symbolically represented and intentionally accessed knowledge to guide processing” (Smith & DeCoster, 2000, p. 111). Knowledge propositions are assessed sequentially, and information triggered from the implicit system may also be considered, until a conclusion is reached that the individual believes is most likely. Dual systems of processing have been argued to have differential influences on behaviour and mood (Strack & Deutsch, 2004), and therefore, information stored about the self at the implicit level may have a different influence on mood and behaviour (e.g., more spontaneous movements) than explicit self-related processing (e.g., more controlled movements).

Dual-processing models have also been applied to self-esteem. The self is assumed to be associated with a number of concepts and attributions, and the extent of positivity of associated concepts and attributions that are triggered when the self is activated refers to implicit self-esteem. For the author, for example, concepts of “footballer”, “researcher”, “funny”, “friendly”, and “stubborn” are more strongly associated with the “self” than “extrovert”, “tidy” or “karate”. When sufficiently strong, or the self is activated for long enough, the associated concepts may be triggered too, which may in turn trigger other concepts associated with it (e.g., “football” might trigger “strong”, and “researcher” might trigger “patient”). Implicit self-esteem (ISE) is assumed to be devoid of any influences associated with self-report bias, and may therefore differ from self-esteem measured by self-report questionnaires (i.e., explicit self-esteem). Explicit self-esteem (ESE) refers to
self-related evaluations that are the result of considering knowledge propositions for the extent of their subjective truth value. Trait ESE refers to the overall tendency to derive at positive or negative self-evaluations. For example, upon seeing yourself in the mirror, mostly negative associated concepts may be activated (i.e., ISE). You might be motivated to overrule this (e.g., to correct for negative moods that have arisen as a consequence) and consider reappraising the situation by recalling relevant memories (e.g., remembering that you have looked a lot worse in similar situations) or create new rules (e.g., you are staying at home today, and there is no need to put a lot of effort into your appearance; i.e., ESE). Therefore, ISE and ESE do not have to be congruent (i.e., equally high or low), and indeed correlations between the two are often small (Bosson, Swann, & Pennebaker, 2000). ISE and ESE have also been shown to manifest in differential behaviours, with ESE being related to more purposeful and controlled behaviours (e.g., hand gestures) and ISE related to more spontaneous behaviours (e.g., nervous mouth movements; Rudolph, Schröder-Abé, Riketta, & Schütz, 2010).

As implicit self-esteem refers to the self-evaluation before additional processes and biases moderate the outcome, the measurement of ISE is not straightforward. Various attempts have been made at capturing ISE, and the most popular of these show low convergent validity (Bosson et al., 2000). The implicit association test (IAT; Greenwald, McGhee, & Schwartz, 1998) is arguably one of the most utilised measures of implicit attitudes and evaluations. IAT scores are derived from reaction times of a word-sorting task, based on the premise that concepts that are more strongly associated would result in shorter reaction times when sharing the same sorting key, than when words less strongly associated share the same key. The IAT has been found to predict implicit racial bias, gender/sexual orientation, consumer preferences, alcohol and drug use (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). With regards to self-esteem, the IAT has been found to predict a buffering effect to a failure condition in terms of self-reported future task aspiration and task importance (Greenwald & Farnham, 2000), spontaneous self-confident behaviours (e.g., nervous mouth movements; Rudolph et al., 2010) and changes in mood following negative feedback (Meagher & Aidman, 2004; but see Buhrmester, Blanton, & Swann,
The self-esteem IAT has consistently been found to be the most reliable implicit measure of self-esteem (Bosson et al., 2000; Krause, Back, Egloff, & Schmukle, 2011), and was therefore used throughout this thesis (chapters 2, 3, & 6).

Research concerning the presence of low self-esteem at the implicit level in depression and anxiety are a lot less consistent than research concerning ESE. Some studies have observed lower ISE in (symptoms of) a depressive disorder (e.g., Franck, De Raedt, & De Houwer, 2007; Phillips, Hine, & Thorsteinsson, 2010; Risch et al., 2010) or anxiety disorder (de Jong, 2002; de Jong et al., 2012; Glashouwer, Vroling, de Jong, Lange, & de Keijser, 2013; Tanner, Stopa, & De Houwer, 2006). Further Franck, De Raedt, Dereu, and Van den Abbeele (2007) found that low ISE was only present in MDD without suicidal ideation, not in MDD with suicidal ideation. However, many have failed to observe lower ISE in depression (e.g., Franck, De Raedt, & De Houwer, 2007; Lemmens et al., 2014; De Raedt, Schacht, Franck, & De Houwer, 2006). Conflicting findings may be the result of small sample sizes (e.g., n = 15, De Raedt et al., 2006), given that sampling from a clinical population is often difficult. This limits the power to detect smaller, but possible still relevant, effects. Poorly defined groups may also explain some of the findings, as the presence of a comorbid MDD and AD is often not controlled for (e.g., Risch et al., 2010). Further, differences in how ISE was measured may also help explain the inconsistent findings.

Implicit Self-esteem Scar

Given the high rates of relapse and recurrence in both depression and anxiety, much research has been conducted on identifying potential "scars" that remain following symptomatology that was not there before the onset of symptoms and which increases the chance for relapse (Burcusa & Iacono, 2007; Lewinsohn, Steinmetz, Larson, & Franklin, 1981). Particularly low ISE may be a likely scar following depression, given its robust nature and the lack of possible controllability to alter dysfunctional associations. Based on the assumption that implicit associations arise following repetitive, consistent explicit associations that require less cognitive resources and become more automatic with time (Beevers, 2005), low ISE would
presumably only increase after prolonged periods of increased ESE. As such, while ESE may have improved following a period of depression or anxiety, low ISE may continue. If cognitive resources are limited (e.g., during periods of stress), it may not be possible to effectively override dysfunctional implicit appraisals concerning the self, thus leaving an individual vulnerable to develop other symptoms of depression and anxiety. Somewhat consistent with this, one study found that implicit public-speaking associations following exposure therapy predicted relapse in those with a phobia of public speaking (Vasey, Harbaugh, Buffington, Jones, & Fazio, 2012). However, both Risch et al., (2010; n = 33 remitted depressed) and Franck et al., (2008; n = 35 former depressed) did not observe lower ISE in remitted depressed individuals in comparison to never depressed comparison group, and further evidence for anxiety disorders could not be found. Potentially the small sample sizes limited the power to detect a smaller effect, but it may also be crucial to differentiate between those who have remitted (i.e., a recent reduction in symptoms) and those who have recovered (i.e., those with a longer period of reduced symptoms). If ESE continues to be improved, it is likely to slowly improve ISE. In both studies (Franck, De Raedt, et al., 2008; Risch et al., 2010), it is unclear how long the former depressed patients had been symptom free.

Self-Esteem Discrepancy

Discrepant self-esteem refers to the extent that implicit and explicit self-esteem differ. Briñol, Petty and Wheeler (2006) have suggested that the extent that they differ is related to increased implicit self-doubt (but not explicit self-doubt), which subsequently leads to negative and dysfunctional consequences, and may motivate behaviour to dissolve the discrepancy (Zeigler-Hill, 2011). Further, it was found that those with a large discrepancy between ISE and ESE where more persuaded by strong self-related messages that were provided supposedly about the person (Briñol et al., 2006). Therefore, it was argued that those with large self-esteem discrepancies may be more susceptible to external information as they were presumed to invest more cognitive resources into information that may resolve the discrepancy. The combination of high ESE and low ISE (“discrepant high self-esteem” or “fragile self-esteem”) has been linked to narcissistic behaviour (Jordan,
Spencer, Zanna, Hoshino-Browne, & Correll, 2003). “Damaged self-esteem” (or “discrepant low”) refers to the combination of high ISE and low ESE, and increased discrepancy in this specific combination has been linked to more depressive symptoms in adults (Creemers, Scholte, Engels, Prinstein, & Wiers, 2012) and social anxiety disorder in adolescents (Schreiber, Bohn, Aderka, Stangier, & Steil, 2012). Studies looking at self-esteem discrepancy in adult clinical populations are relatively few, and it may be that specific combinations of ESE and ISE are prevalent in anxiety and depression, particularly if discrepant self-esteem gives rise to self-doubt.

**Self-Esteem Instability**

The introduction till now has discussed self-esteem as a trait. However, evidence for both trait-levels and state-levels of self-esteem exist. While self-esteem appears to be relatively consistent across life (Orth et al., 2015), the fluctuations in self-esteem in response to, for example, daily stress or positive occurrences (Greenier et al., 1999), clearly supports a state-like dimension to self-esteem. Specifically, state self-esteem has been described as “the baseline self-view from which such fluctuations emerge” (Kernis, Grannemann, & Mathis, 1991, p. 1013). These state-like “fluctuations” brings us to the last self-esteem concept addressed in this thesis: self-esteem stability (SE-S). Based on the theory that depression and anxiety are characterised by highly reactive negative self-schemas which are overly sensitive to stress, sad mood, and other negative circumstances (e.g., diathesis-stress models, Zuckerman, 1999), it has been argued that the average level of ESE is not necessarily related to psychopathology, but rather the extent and frequency of fluctuations. Indeed, self-esteem was found to react to sad mood (Clasen, Fisher, & Beevers, 2015). Several studies have highlighted that depressive symptomatology is characterised by self-esteem instability (as quantified by the standard deviation across multiple measures of ESE) rather than a single measure of ESE (e.g., Roberts & Monroe, 1992). Others have found that depressive symptoms were related to the combination of low ESE and low SE-S (e.g., de Man, Gutiérrez, & Sterk, 2001), while others failed to find that SE-S outperformed a single measure of ESE (Roberts, Kassel, & Gotlib, 1995). Research focusing on clinical samples of anxiety and depression are considerably less. Low SE-S was related to social
anxiety disorder, but once accounting for ESE, the relationship disappeared (Farmer & Kashdan, 2014). Low SE-S was also observed in currently and formerly depressed samples, in comparison to a never-depressed sample (Franck & De Raedt, 2007). Further, ESE and SE-S are often reported to correlate, with low levels of ESE related to low SE-S (for a meta-analysis of studies see Okada, 2010). This is in keeping with the findings that those with high ESE are less affected by negative feedback (Ford & Collins, 2010). As such, although related, the combination of low ESE and low SE-S, particularly, may play a role in psychopathology. Based on the limited previous clinical studies, low SE-S might be a feature of depression, specifically, and not anxiety. Further, SE-S refers to fluctuations in ESE, but it remains unknown as to whether ISE is also susceptible to systematic fluctuations. Studies have looked at the influence of sad mood on ISE in remitted depression, compared to a never depressed comparison group with conflicting results (Franck, De Raedt, et al., 2008; Gemar, Segal, Sagrati, & Kennedy, 2001), but whether sad mood influences ISE independent of clinical status remains unknown. If ISE is indeed influenced by mood, it may highlight the possibility of an unstable ISE as a product of highly reactive mood.

**Self-Depressed Associations**

While ISE refers to the general degree of positivity and negativity of self-related associations, the self may also be related to other, more specific attributes. Disorder-specific implicit self-associated concepts have been observed both in anxiety and depression (Glashouwer & de Jong, 2010). Specifically, implicit self-depressed associations were found to be stronger in those with a depressive disorder than a never depressed or anxiety disorder comparison group, and individuals with an anxiety disorder. Likewise, implicit self-anxious associations were found to be stronger in those with an anxiety disorder than in individuals with a depressive disorder. Those who had comorbid anxiety and depressive disorders were found to have both strong implicit self-depressed associations and self-anxious associations, and these associations were found to be stronger than those with an anxiety or depressive disorder only. Further, stronger implicit self-depressed and self-anxious associations were related to decreased chance of remission in depression and anxiety, respectively (Glashouwer, de Jong, & Penninx, 2012).
Unlike with ISE (Franck, De Raedt, et al., 2008; Risch et al., 2010), there is some evidence that implicit self-associations remain strong in remission. Glashouwer, de Jong, and Penninx (2011) found that implicit self-anxious associations predicted relapse in those who were currently remitted from anxiety. In depression, Glashouwer and de Jong (2010) observed that while remitted depressed individuals had weaker self-depressed associations than those who were currently depressed, associations were stronger than in the never depressed group. Further, another study found that the number of previous MDD episodes, and the duration of depressive symptoms in the previous two years, were both related to stronger implicit self-depressed associations in remitted and recovered depressed individuals (Elgersma, Glashouwer, Bockting, Penninx, & de Jong, 2013). If implicit self-depressed associations represent a scar following a depressive episode, it should increase vulnerability for relapse and recurrence (Burcusa & Iacono, 2007). Till now, no research has been conducted to see if this is indeed the case.

“The man who does not value himself, cannot value anything or anyone”

(Ayn Rand)

**The Present Thesis**

**Overall Aims**

Inarguably, much research has been conducted on self-esteem. This may be because low self-esteem is something that most have experienced at some point. Even within the context of depression and anxiety, much self-esteem research has been done. However, the understanding that self-esteem is more complex than once thought, and that self-report measures may only capture one side of the construct, call for research to further investigate the presence of these different self-esteem facets in depression and anxiety. Evident from the overview of several self-esteem facets, how (often) you measure self-esteem appears to be related to different outcomes. For example, while self-esteem at one given moment may be particularly
high, it may be highly reactive to changes in moods and external situations (i.e., high explicit self-esteem, low self-esteem stability). This may highlight that a person is not consistently vulnerable to symptoms of depression or anxiety, but when that person is going through a disruptive period (e.g., during a break-up), the risk for depression or anxiety becomes real. As such, it seems poignant to look at the different facets of self-esteem in the aetiology of depression and anxiety, as each facet may be uniquely relevant. Presumably each unique association would require a different, specific intervention. Explicit self-esteem, implicit self-esteem, self-esteem discrepancy, self-esteem instability, and self-depressed associations have all been looked at in previous depression and anxiety research. Despite this, several important questions remain, and the present thesis aims to address a number of them. Below, a chapter by chapter overview is provided, highlighting the main research question, brief justification/background, and how the question is addressed in the chapter. Addressing these questions will further existing knowledge of the role of self-esteem in depression and anxiety.

Chapter Overview

**Does self-esteem in healthy adolescents relate to symptoms of depression and anxiety years later?** Adolescence marks a period of decreasing self-esteem as identity confusion increases, the positivity bias present in childhood decreases, and stress starts to increase. First onset of anxiety disorders is often before adulthood and those with depressive disorders during adolescence and childhood often develop a highly recurrent pathology. The decrease in self-esteem may explain why symptoms of depression and anxiety manifest during this period. In chapter two, we look at whether ISE and ESE (and the discrepancy herein) in relatively healthy adolescents are related to symptoms of social anxiety and depression two years later. This chapter also looks at whether there is evidence of a self-esteem scarring model by testing whether symptoms of depression and social anxiety were related to subsequent levels of ISE and ESE.
Is self-esteem lower in clinical adult groups with depression and/or anxiety than in a comparison group with no history of a depression or anxiety disorder? This question has been addressed in previous research using small clinical groups, and often, broadly defined inclusion criteria, which may explain the inconsistent findings. To address these methodological shortcomings, chapter three uses data collected in the Netherlands Study of Depression and Anxiety (NESDA), a large ongoing longitudinal study aiming to capture and understand predictors of depression and anxiety etiology. Specifically, ISE and ESE will be compared between a comparison group with no history of a depression or anxiety disorder and clinical groups of anxiety, depression, and comorbid anxiety and depression differentiated by etiological phase (current, remitted, and recovered). By differentiating between these phases, it is also possible to give some indication as to whether low ESE or ISE persist into recovery. A novel approach to analysing self-esteem discrepancy is also employed in this chapter to tackle several shortcomings of previous approaches.

Is self-esteem stability lower in clinical adult groups of depression and anxiety than in a comparison group with no history of a depression or anxiety disorder? Previous research has indicated that, in analogue samples, heightened fluctuations in self-esteem increases vulnerability for symptoms of depression and anxiety. The few studies that have adopted clinical samples have used small sample sizes, and appear to derive at different conclusions. In chapter four, it is examined whether the clinical groups established in the previous chapter are characterised by low self-esteem stability (i.e., regular fluctuations in self-esteem). The inclusion of recovered depression and anxiety will reveal whether low levels of self-esteem stability persist into recovery.

Does the level of self-depressed associations predict likeliness of recurrence in remitted and recovered depressed individuals? Previous studies have highlighted that self-depressed associations are still relatively strong following an episode of depression. A scar in depression, by definition, should increase vulnerability for relapse and recurrence. Chapter five continues on previous research by predicting relapse and recurrence using level of self-depressed associations in recovered and remitted depressed
Chapter One

individuals. Specifically, a longitudinal analysis is conducted to see whether levels of implicit and explicit self-depressed associations predicts (time to) relapse up to six years later.

**Does implicit self-esteem decrease in response to increased sad mood?** The penultimate chapter aims to explore whether sad mood influences ISE. While there is some support for the construct of self-esteem stability (i.e., fluctuations in ESE), little research has looked at the possibility of ISE to fluctuate. Given that context can influence the strength of associations, it is assumed that during periods of sad mood, negative content may be more readily available, and as such, ISE would be lower. In this experimental study, ISE in university students is compared between those who received a sad-mood induction, and those who did not.

*Final Chapter*

This thesis ends with a general discussion. The findings for each research question are reiterated, thereby stipulating the findings of the thesis. Each facet of self-esteem is discussed in light of these findings and previous findings, with suggestions as to which facets may be most fruitful to pursue in the quest for effective anxiety and depression (relapse) prevention and intervention.