

**THE BENEFITS OF KNOWING AND CARING ABOUT ONESELF:
THE ROLE OF SELF-INSIGHT AND SELF-COMPASSION IN IDENTITY AND
WELL-BEING**

by

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Abstract

Self-insight has been identified as an important predictor of psychological well-being, and it is commonly believed that self-insight is achieved through self-reflection. However, findings regarding the relationship between self-reflection and self-insight remain largely inconsistent warranting further examination of the determinants of the outcomes of self-reflection. This thesis examined the relationship between self-reflection, self-insight, and psychological well-being as a function of individual differences in identity styles, while also considering the roles of rumination and self-compassion. Two hundred and twenty-six emerging adult women ($N = 165$) and men ($N = 61$) completed self-report measures of identity styles, self-reflection, self-insight, psychological well-being, rumination, and self-compassion via the University of Northern British Columbia (UNBC) Psychology Research Participation System in the time from September 2020 until April 2021. Self-insight and self-compassion partially mediated the positive relationship between informational identity processing and psychological well-being. For users of the diffuse-avoidant and normative identity styles, rumination negatively predicted psychological well-being. This relationship was fully mediated by self-insight and self-compassion. The results are discussed in terms of the roles of self-reflection, self-insight, and self-compassion in fostering psychological well-being. Findings highlight the importance of self-compassion as a precedent in order to adaptively self-reflect, gain self-insight and increase psychological well-being. Any attempts at increasing self-insight that are not done in a self-compassionate way pose a risk to an individual's psychological well-being; this risk is especially high when diffuse-avoidant or normative identity processing is used. The primary implication is that a consideration of self-compassion is warranted in therapy and other practices relying on self-reflection.

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INTRODUCTION

The idea that self-knowledge is good for us dates back to the inscriptions on ancient Greece's Temple of Apollo in Delphi where one of the admonitions on the temple read "know thyself" (Dunning, 2005). Proving the ancient Greeks right, it has been shown that knowing oneself positively affects psychological well-being, satisfaction with one's life, and subjective happiness (Harrington & Loffredo, 2011; Lyke, 2009). However, it is not simply self-knowledge but rather self-insight that has proven worthy of pursuit. Someone with self-insight has a clear *understanding of* (rather than just knowing about) their thoughts, feelings, and behaviors related to their self-conception (Grant et al., 2002).

Insightful individuals experience more self-acceptance, positive relations with others, and purpose in life compared to those who are lower in self-insight (Harrington & Loffredo, 2011). Self-insight is indispensable for effective coping and resilience (Beardslee, 1989), and it provides cognitive flexibility and self-regulation, which foster behavioral change and growth (Grant et al., 2002).

The importance of gaining self-insight is recognized in therapeutic contexts as a prerequisite for effective therapy (Wampold et al., 2007). In psychoanalytic theories, for instance, to achieve self-insight is considered the main mechanism in reducing intrapsychic conflict (Freud, 1965, as cited in Lyke, 2009). Similarly, in cognitive and behavioral therapy, the sense of understanding that stems from self-insight is deemed important in analysis of maladaptive thought and behavioral patterns and the initiation of change (Clemens, 2003).

It is a common belief that self-insight is achieved through reflecting on oneself. However, recent research indicates that self-reflection does not readily lead to self-insight. The conditions under which self-reflection occurs play a pivotal role in whether self-

reflection will lead to insight (Grant et al., 2002; Silvia & Phillips, 2011). For example, if a person ruminates at the same time as self-reflecting, the adaptive benefits of self-reflection for self-insight can be dampened (Takano & Tanno, 2009).

Self-reflection and self-insight are both concerned with one's self-identity and the processing of information regarding one's self-identity. An individual's self-identity is their self-constructed theory of self or identity structure that constitutes the interpretive context of one's being (Berzonsky, 1992). According to Berzonsky (1989), three identity processing styles can be distinguished based on stylistic differences in the processing of self-relevant information. Depending on one's preferred identity processing style, an individual's levels of self-reflection and self-insight vary (Berzonsky & Luyckx, 2008; Beaumont & Pryor, 2013). Additionally, they vary in their attitude towards themselves or their degree of self-compassion when engaging in reflective processes (Neff et al., 2007). Finally, each identity processing style is differentially related to rumination, a form of repetitive thinking with a focus on the negative (Berzonsky & Luyckx, 2008; Harrington & Loffredo, 2011).

Given the importance that is placed on self-insight, it is important to more closely understand what mediates the attainment thereof. The purpose of this thesis is to examine the relationship between self-reflection and self-insight and how they predict psychological well-being as a function of individual differences in identity styles, while also considering the roles of rumination and self-compassion. The essential premise to be examined is that self-insight and self-compassion are the psychological capacities which foster a beneficial link between identity processing and well-being. Understanding the role of self-compassion and identity-related differences in gaining self-insight can inform therapy and self-reflection practices more generally. The following literature review will expand on the psychology of

self-reflection, rumination, self-insight, self-compassion, and identity processing, and the predictive links between these various aspects of self-processing and with psychological well-being.

LITERATURE REVIEW

The following section will review the relevant literature that links self-reflection, rumination, self-insight, self-compassion, and psychological well-being. In addition, to provide a basis for examining the role of identity in this context, the following review also includes a discussion of the literature on identity insofar as it is relevant to these concepts.

Knowing Oneself

What it means to know oneself is not as self-explanatory as it would seem. Self-awareness, self-knowledge, and self-insight each depict a certain facet of the broader idea of knowing oneself. To understand the multi-level nature of what it means to know oneself and what is necessary to attain knowledge of self, it is important to know the differences.

Self-awareness is the capacity to be aware of one's existence, also called reflexive self-consciousness (Alicke et al., 2020). To humankind's knowledge, we are the only species that can take a meta-perspective in reflecting on ourselves. It is our capacity for self-awareness that sets us apart from other species (Wilson, 2009). Being aware of oneself can have positive as well as aversive consequences (Alicke et al., 2020). In fact, "self-awareness has a bad reputation in social-clinical psychology because of its ties to negative affect, depression, suicide, and dysfunction" (p. 475, Silvia & O'Brien, 2004). It is linked to neuroticism, self-criticism, and self-destructive behaviors and can lead to obsessive preoccupations with internal experience. On the flip side, taking the perspectives of others, exercising self-control, creative accomplishment, and experiencing pride and self-esteem would not be possible without self-awareness. Thereby, self-awareness contributes to constructive human functioning and is essential in navigating social interaction. It is in the attempt to reconcile this dialectic that people may suffer (Silvia & O'Brien, 2004).

Self-knowledge relates to self-relevant information and the accuracy of our

introspection about our internal states. However, it is less about careful introspection and understanding than it is about observation and knowing or correctly perceiving. It includes knowledge of our attitudes, beliefs, emotions, traits, and motives. Inaccurately knowing ourselves has been found to negatively affect emotional well-being and to lead to high levels of physiological reactivity, anxiety, self-doubt, defensiveness, and narcissism (Wilson, 2009).

Self-insight goes beyond self-knowledge and is more closely concerned with our self-system or self-identity. It is not simply about accurately perceiving (self-knowledge), but it is about making sense of and integrating self-relevant information (Klimoski & Hu, 2012). Someone is said to have self-insight when they have a subjective sense of *understanding* of the self, their thoughts, feelings, and behaviors of which the self is comprised (Grant et al., 2002). Self-insight is a genuinely adaptive factor. Such sense of knowing oneself has been shown to positively affect several markers of well-being (Lyke, 2009), and many forms of therapy rely on the attainment of self-insight because it comes with a cognitive and emotional awareness that allows for change and improvement of well-being (Clemens, 2003). It appears rightfully so as it has been found that self-insight is negatively related with a latent variable underlying depressive and anxiety symptoms (Nakajima et al., 2017), and self-rumination is lowered in the presence of self-insight (Harrington & Loffredo, 2011). Further, self-insight has been found to be related to various indicators of psychological adjustment, for example, resilience, cognitive flexibility, and self-control (Cowden & Meyer-Weitz, 2016; Grant et al., 2002).

One could get the impression that self-insight is somehow the “highest” form of knowing oneself, and in terms of benefits it appears to be just that, but self-awareness and

self-knowledge are nonetheless crucial as they are imperative to attaining self-insight. To gain self-knowledge, it is first necessary to be self-aware. We cannot know about ourselves of what we are not aware (Alicke et al., 2020). What we know about ourselves may then be used to gain self-insight. We achieve self-insight when we make new discoveries or gain understanding of our self-system based on of what we are aware (self-awareness) and know about ourselves (self-knowledge; Klimoski & Hu, 2012).

How to Get to Know Oneself: Self-Reflection

As laid out above, getting to know oneself is a beneficial pursuit. The question, then, is how one achieves knowledge of the self and specifically self-insight. Many psychological schools of thought expect self-insight to result from reflecting on the self.

A person is said to self-reflect when they engage in the metacognitive process of inspecting and evaluating their thoughts, feelings, and behaviors (Grant et al., 2002). The act of self-reflection has been found to bring about positive outcomes such as growth (Harrington & Loffredo, 2011), and to be essential in self-regulation, hardiness, (Nakajima et al., 2017), and resilience (Cowden & Meyer-Weitz, 2016). However, it has also been found to play a role in more adverse outcomes such as anxiety and stress (Grant et al., 2002). Initially, these mixed findings lead researchers to believe that reflecting on the self entails both adaptive and maladaptive processes (Harrington & Loffredo, 2011; Trapnell & Campbell, 1999). However, later research suggested that engaging in self-reflection may in fact be adaptive, but only in the absence of compromising behavior such as rumination (Joormann et al., 2006; Takano & Tanno, 2009). Extending on that logic, the latest conceptualizations posit that the plain act of self-reflection is logically independent of the motive to reflect and the direction and outcomes of the reflection (Stein & Grant, 2014). In

agreement with that notion, it has been shown that engagement in self-reflection is not significantly associated either positively or negatively with happiness or life satisfaction, suggesting that the act of self-reflection alone neither facilitates nor detracts from well-being (Lyke, 2009). More so, it is salient thoughts and attitudes during the self-reflection process that ultimately determine the outcome (Stein & Grant, 2014).

Similarly, the mere fact that someone reflects on themselves does not guarantee self-insight (Grant et al., 2002; Roberts & Stark, 2008). What is missing is a consideration of the conditions under which self-reflection is taking place. If the conditions are unfavorable, it may be that one spends considerable time self-reflecting without gaining insight (Grant et al., 2002). For instance, dysfunctional attitudes have been found to suppress the positive relationship between self-reflection and self-insight. When such deterrents to self-insight are absent or controlled for, self-reflection is positively related to self-insight (Stein & Grant, 2014). Similarly, particularly long periods of reflection were found to undermine self-insight rather than promote it (Grant, 2001; Hixon & Swann, 1963).

In short, self-reflection is not a pure or exclusively adaptive factor (Nakajima et al., 2017), and it needs to be done right or under the right circumstances to allow for gains in self-insight; but when it is, it is an important mechanism in gaining self-insight. For instance, self-reflection is a means to increase self-awareness (Pai, 2015), an antecedent to self-insight. Evaluating appraisals of others and comparing them with self-ratings, which is a form of reflecting on the self, can provide self-insight (Hixon & Swann, 1963). Furthermore, self-reflection has been found to be important in the development of reflective wisdom which entails complex self-knowledge (Ardelt, 2003). Generally speaking, self-reflection can be viewed as the process of psychological inquiry and self-insight as its potential - but not

guaranteed - outcome (Grant, 2001).

The Role of Rumination in Self-Reflection and Self-Insight

So far, this thesis has framed self-reflection as an important self-process involved in developing insights about oneself. However, it is important to acknowledge that other research has considered how self-reflection is often clouded by rumination, or repetitive thinking about one's negative states (Nolen-Hoeksema, 1991). In fact, early research revealing a positive relationship between self-reflection and rumination (e.g., Traynor & Trapnell, 1999) shed a negative light on self-reflective processes. However, other research has shown that those findings may be due to measurement confounds (Grant et al., 2002), or the fact that the nature and outcomes associated with reflection and rumination are influenced by the presence of maladaptive self-processing (to be discussed later) or a depressive mood.

The concept of rumination originated in the depression literature where it constituted a focus on one's depressive status and its symptoms, causes, meanings, and consequences. It is a highly symptom-focused and contemplative behavior (Nolen-Hoeksema, 1991) that has later been shown not to be specific to contexts of depression, but rather to be a cognitive vulnerability to depression (Smith & Alloy, 2009). To date, there is no unified definition of rumination and a number of measures have been proposed that are each based on a slightly different definition. Across measures and definitions, "dwelling on the negative" emerges as the defining component that distinguishes rumination from other concepts. The most prolific theory to date is Nolen-Hoeksema's (1991) Response Styles Theory (Smith & Alloy, 2009). According to the Response Styles Theory, someone is ruminating when they repetitively think about the causes, consequences, and symptoms of their negative affect (Nolen-Hoeksema, 1991). While some theories view rumination more as a transitive, state-like

phenomenon, the Response Styles Theory conceptualizes rumination as a stable, individual trait. The extent to which someone engages in rumination at any given time may vary with the presence or absence of a trigger; but, in general, an individual is likely to respond to triggering events with their characteristic level of rumination (Smith & Alloy, 2009).

An important refinement of the Response Styles Theory was presented by Treynor et al. (2003) who provided support for a two-factor model of rumination. After purging the Ruminative Responses Scale of items that contributed to the scale's often criticized overlap with depression, they were left with a 10-item scale that captures two distinct aspects of rumination: reflection and brooding. Reflection is the more neutral and general component of turning inward and encompasses purposeful contemplation and reflection in an attempt to reduce depressive moods. Brooding, on the other hand, is characterized by specifically moody pondering and anxiously and gloomily thinking about matters and is believed to capture the maladaptive component of rumination (Treynor et al., 2003).

The Response Styles Theory states, and research supports, that rumination enhances negative thinking, threatens problem solving and instrumental behavior (Nolen-Hoeksema et al., 2008), and causes behavioral and emotional problems, particularly anxiety (Smith & Alloy, 2009). Life events are perceived as more stressful by people who ruminate (Lok & Bishop, 1999), and they are more susceptible to a number of psychopathological conditions (Smith & Alloy, 2009), including prolonged depressive moods (Nolen-Hoeksema, 1991) and heightened negative affectivity (Joireman et al., 2002). Rumination also takes a toll on social interactions and weakens social support (Nolen-Hoeksema et al., 2008).

Harrington and Loffredo (2011) found a strong negative relationship between rumination and self-insight. Thus, it is likely that rumination obstructs self-insight through

the limitations created by emotional avoidance and a focus on negative personal attributes (Smith & Alloy, 2009). In addition, rumination negatively affects self-insight by increasing negative affect (Nolen-Hoeksema, 1991) which, in turn, hinders self-insight through increased distress (Silvia & Phillips, 2011). Finally, rumination cancels out the adaptive effects of self-reflection, such as perspective-taking (Joireman et al., 2002), thereby hindering the attainment of self-insight (Takano & Tanno, 2009).

Given that rumination could be characterized as self-reflection gone wrong, it stands to determine what leads an individual to either productively self-reflect or ruminate. Silvia et al. (2005) discuss motivational differences as a potential determinant. They suggest that rumination is motivated by neurotic tendencies while self-reflection is rooted in openness to experience (Silvia et al., 2005).

Caring About Oneself: Self-Compassion

In addition to focusing on the benefits of self-insight, this thesis also focuses on the related benefits of self-compassion. The concept of self-compassion originates from Buddhist psychology and constitutes a healthy attitude and relationship to oneself that is non-evaluative in nature (Neff, 2003b). Self-compassion bolsters mental health and is primarily exhibited when facing hardship or feelings of inadequacy (Neff et al., 2007). However, to be self-compassionate goes beyond situations of suffering. It further entails a general striving for health and well-being and is also exhibited through the gentle encouragement of change where needed to rectify maladaptive patterns of behavior (Neff, 2003a).

Three components make up self-compassion, and each component is conceptualized as the presence of a certain behavior and the absence of an opposing behavior. The first component is to practice self-kindness rather than to engage in self-judgement. Being kind to

oneself means being open to the experience of one's own suffering and failings, while being kind, understanding, and very importantly, non-judgemental in face of the experience. Not exercising harsh critique towards oneself, however, does not mean that failings go unnoticed or unrectified. The second component is to recognize common humanity rather than to lose oneself in isolation. If done successfully, one acknowledges suffering, failure, and inadequacies as part of the human condition and forgives one's failings rather than perceiving them as separating and isolating. In other words, one holds an acceptance of oneself as fully human which is limited and imperfect by nature. The final component is being mindful instead of over-identifying with one's struggles. In being mindful one avoids an over-identification with painful thoughts and feelings and instead holds them in balanced awareness. Such balanced awareness avoids both extremes of over-identification and dissociation with the experience and allows the clear observation of internal states (Neff, 2003a).

One can readily see how the three facets can mutually enhance one another and how the absence of one aspect may make attainment of another more difficult. Common humanity can boost self-kindness because the feeling of connectedness to others through the shared human experience makes it easier to accept one's own imperfection as part of being human, which may consequently lessen harsh self-judgement. At the same time, this may enhance mindfulness because the nature of the shared experience prevents over-identification. To be mindful in situations of adversity allows for awareness rather than tunnel-vision, which is often seen when one over identifies with their struggles. Tunnel-vision and over-identification would be likely to prevent us from recognizing shared humanity and practicing self-kindness. Lastly, self-kindness may foster common humanity because adopting an

understanding, non-judgemental attitude toward one's shortcomings may help to feel less ashamed of faults and prevent retreating from others. By allowing a non-judgmental observation of the internal dialogue, self-kindness may also foster mindfulness because it allows a person to keep a balanced awareness rather than over-identify (Barnard & Curry, 2011).

Practicing self-compassion has positive benefits for one's mental health. Through self-compassion, depression and anxiety can be lessened and life satisfaction increases (Neff, 2003b). Neurotic perfectionism and self-criticism are untypical of self-compassionate people. Instead, they are more accepting of themselves and even (or especially) so in circumstances where they fail to meet their personal standards which means less distress in such circumstances (Neff, 2003b). Finally, being self-compassionate enhances psychological well-being (Homan, 2016).

Self-insight, as discussed above, fosters psychological well-being, and is improved when self-compassion is exercised. By alleviating self-condemnation, self-compassion provides emotional safety that allows one to see the self more clearly (Neff, 2003a). High levels of self-compassion afford individuals resilient self-appraisals and a more accurate rating of their abilities (Barnard & Curry, 2011), as they feel less need to hide their shortcomings from themselves, which allows for greater knowledge and clarity about one's limitations (Neff, 2003a). Additionally, exercising self-compassion typically leads to a more positive affective state in which a more careful, thorough processing of unflattering self-relevant information can take place (Aspinwall, 1998). All in all, self-compassion facilitates clarity and accuracy of self-appraisals (Neff, 2003a).

In a sample of adolescents, it was found that self-reflection led to more symptoms of

social anxiety in the absence of self-compassion as compared to when high levels of self-compassion were exercised. The anxiety reducing effects of self-compassion were particularly strong at average and above average levels of self-reflection (Stefan & Cheie, 2020). Based on these findings, Stefan and Cheie (2020) concluded that “more self-reflection could represent a healthy strategy as long as the person does this while also embracing accepting views about imperfections and failures, thus reducing risk for social anxiety” (p. 8). Conversely, self-reflection could turn into a ruminative process when reflecting about emotions, thoughts, and behaviors in a harsh and overly self-critical or in other words non-self-compassionate way (Stefan & Cheie, 2020).

The more self-compassionate one is, the less room there is for ruminating and vice versa. Self-compassion has been found to have positive effects on unproductive, repetitive thinking and to eliminate rumination (Neff, 2003b; Neff & Vonk, 2009; Raes, 2010). It entails a positive self-attitude that offers protection against rumination (Neff & Vonk, 2009). Conversely, rumination was found to mediate the otherwise strong negative relationship between self-compassion and depressive symptoms (Johnson & O’Brien, 2013; Raes, 2010).

Individual Differences in Self-Reflection, Self-Insight, Self-Compassion, and Rumination: Identity Processing Styles

All of the self-related processes discussed thus far (self-reflection, self-insight, rumination, and self-compassion) are aspects of one’s larger self-identity. An individual’s self-identity is their self-constructed theory of self or identity structure that constitutes the interpretive context of one’s being, one’s life purpose, and one’s meaning-in-life (Berzonsky, 1992). Although there are many ways that researchers have conceptualized and measured self-identity, the approach taken in this thesis relies on Berzonsky’s (1989, 2011) theory of

identity because it delineates individual differences in identity processing styles which differ in terms of self-reflection. Berzonsky (1989, 2011) distinguishes three identity styles based on an individual's style of processing and adapting self-relevant information into one's identity structure: information-oriented or informational; norm-oriented or normative; and diffuse-avoidant. Individuals who use an informational style are active in seeking out, processing, and evaluating self-relevant information. Those using a normative style conform to prescriptions and expectations of significant others rather than actively approaching identity questions. Finally, individuals who use a diffuse-avoidant style tend to avoid identity-relevant issues altogether and show low levels of self-awareness. Individuals will have a preference for a particular style, but are capable of using all three styles by late adolescence (Berzonsky, 1989).

Contingent on their preferred identity processing style, individuals show distinct dispositional qualities. Use of the informational identity style is associated with self-reflection and self-awareness (Berzonsky & Luyckx, 2008). Individuals using this style exhibit high levels of introspection and perspective taking (Berzonsky & Sullivan, 1992), as well as openness to experience (Clancy Dollinger, 1995), and they tend to achieve high levels of self-insight and self-compassion (Beaumont & Pryor, 2013). While highly committed to their identity, they maintain the flexibility to adapt their self-construct if necessary (Berzonsky, 1990, 2009). In part due to those qualities, it has proved very adaptive to deploy an informational identity processing style, more so than using a normative or a diffuse-avoidant identity processing style (Berzonsky, 1992). For example, informational identity processing positively predicts environmental mastery, autonomy, purpose in life, personal growth, positive relations with others (Vleioras & Bosma, 2005), self-actualization, self-

transcendence (Beaumont, 2009), and wisdom (Beaumont, 2011; Webster, 2013)

Individuals with a preference for the normative identity style report high levels of identity commitment, as do those who use an informational identity style, yet they do not engage in identity exploration (Berzonsky, 1990, 2009, 2011). In fact, individuals who use a normative identity style lack openness to experiences (Clancy Dollinger, 1995) and are low in self-reflection (Luyckx et al., 2007). They are more likely to ruminate and show a low tolerance for ambiguity (Berzonsky & Luyckx, 2008). The use of normative identity processing is unrelated to self-compassion (Bruser & Beaumont, 2010) and self-insight is unlikely to be won from engaging in this style of identity processing (Beaumont & Pryor, 2013). Yet, for the most part, deploying a normative identity processing style neither promotes nor obstructs most markers of psychological well-being. The only exception is wisdom, which is hampered by norm-oriented identity processing (Beaumont, 2011, 2017).

Users of the diffuse-avoidant identity processing style do not engage in self-exploration (Berzonsky, 1990) or self-reflection (Luyckx et al., 2007), and have low self-awareness (Berzonsky & Sullivan, 1992). Negative aspects of the self are concealed (Berzonsky, 2009, 2011), and overall, self-insight is low when this identity processing style is applied (Luyckx et al., 2008). Individuals using this identity processing style typically lack commitment to their identity (Berzonsky, 2011), are prone to ruminate (Berzonsky & Luyckx, 2008), all while failing to be self-compassionate (Beaumont & Pryor, 2013). As a result, they experience high life distress and have a predisposition for mental health problems (Adams et al., 2001; Beaumont & Seaton, 2011). Similarly, psychological well-being is negatively affected by the use of this processing style (Vleioras & Bosma, 2005).

In summary, the capacities for self-reflection, self-insight, and self-compassion vary

as a function of identity processing style, with the informational style predicting the use of all three positive self-attributes/processes. In contrast, the use of a diffuse-avoidant style is positively associated with rumination and negatively associated with self-reflection, self-insight, and self-compassion. The normative style is associated with a more mixed pattern of findings; although it is negatively associated with self-reflection and insight, it is unrelated to self-compassion and positively related to rumination. The differences between the three identity processing styles relate to self-knowledge in two ways: 1) how much self-knowledge an individual seeks and 2) how they go about seeking self-knowledge. Individuals who apply informational identity processing seek the most knowledge about themselves and do so against a backdrop of self-compassion. Users of a normative identity processing style answer identity questions by referring to others rather than investigating their own identity. In other words, they substitute self-knowledge for prescriptions and expectations of significant others. Diffuse-avoidant individuals avoid answering identity questions altogether, neither do they inspect themselves nor do they adopt prescriptions by others. They are unable to approach identity relevant information in a self-compassionate way which may be the reason avoidance is their only way of coping.

However, the above findings have come from multiple studies; no previous study has examined all self-constructs within the same sample. Because self-insight and self-compassion have repeatedly been found to be so important for psychological well-being, this thesis will address that limitation.

Objectives and Hypotheses

The purpose of this research was to examine the relationship between self-reflection and self-insight and to determine how they relate to psychological well-being as a function of

individual differences in identity styles, while also considering the roles of rumination and self-compassion. The essential examined premise was that self-insight and self-compassion are the psychological capacities which foster a beneficial link between identity processing and well-being. Specifically, the use of an informational identity style was expected to be associated with an adaptive pattern of predictive relationships between self-reflection, self-insight, self-compassion, and psychological well-being. The use of a diffuse-avoidant identity style was expected to be associated with a maladaptive pattern of predictive relationships between rumination, self-insight, self-compassion, and psychological well-being.

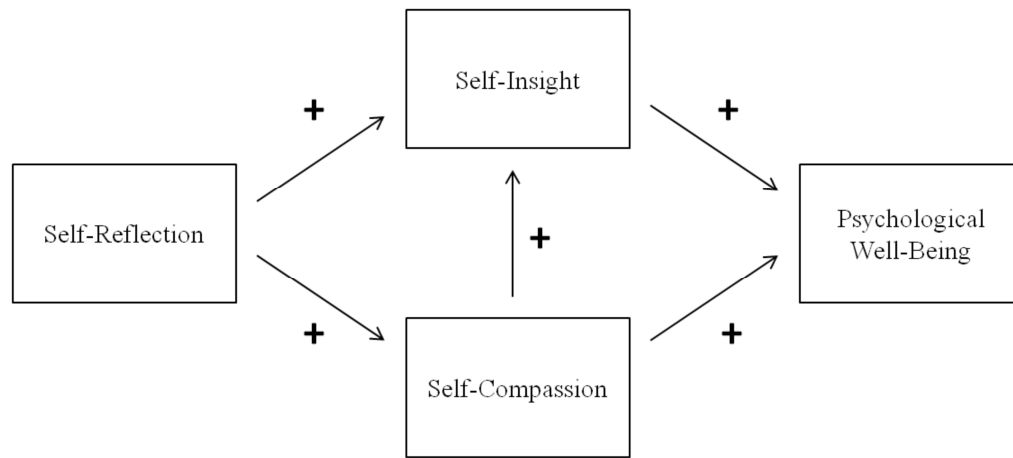
This research offers an extension of previous research by examining all self-constructs within the same sample and by including more sound measures of self-reflection and rumination. First, by using the Self-Reflection and Insight Scale by Grant et al. (2002), self-reflection is no longer confounded with rumination as is the case with Trapnell's and Campbell's (1999) Rumination-Reflection Questionnaire (Nolen-Hoeksema et al., 2008). Second, rumination will be measured using the New Rumination Scale by Treynor et al. (2003), which is a refinement of previous measures as it has been purged of any items that caused a confound with depression (Treynor et al., 2003). The specific hypotheses are as follows, along with visual representations in Figures 1 and 2:

Hypothesis 1: For individuals who score high on the informational style, self-reflection will positively predict psychological well-being, and that relationship will be mediated by high self-insight and self-compassion.

Hypothesis 2: For individuals who score high on the diffuse-avoidant style, rumination will negatively predict psychological well-being, and that relationship will

Figure 1

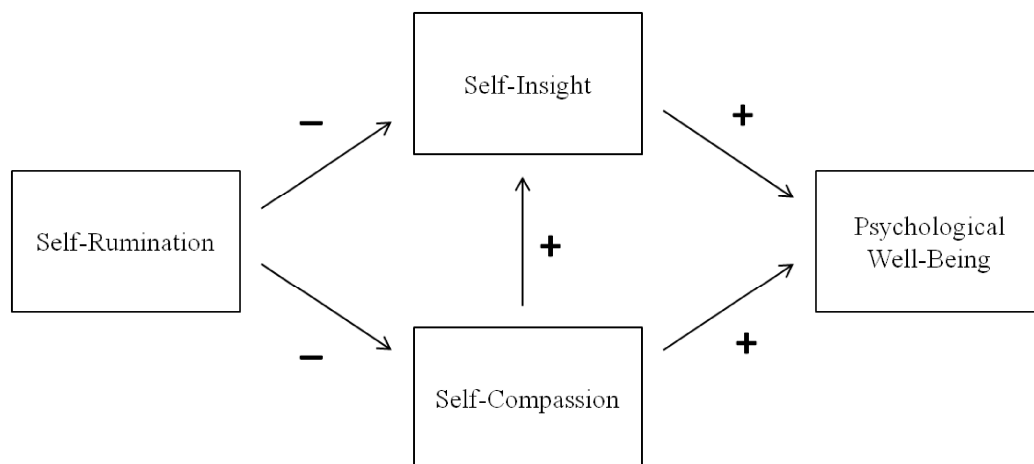
Hypothesized Adaptive Pattern for the Informational Identity Style Users



Note. Positive signs indicate a positive relationship.

Figure 2

Hypothesized Maladaptive Pattern for the Diffuse-Avoidant Identity Style Users



Note. Positive and negative signs indicate positive and negative relationships, respectively.

be mediated by low self-insight and self-compassion.

No specific hypotheses were posed for the normative style, given the mixed findings in previous studies, and thus, only exploratory analyses were conducted.

Analysis Approach

A median split will be applied to the identity style sub-scale scores in order to consider a specific sample of high scorers on the informational style (Hypothesis 1) and high scorers on the diffuse-avoidant style (Hypothesis 2). Using those sub-samples, the two hypotheses will be tested following the Baron and Kenny (1986) four-step method for testing mediation hypotheses using a series of regression analyses. Their method is used to study the mechanism (“the mediator”) through which a “causal variable” (the variable hypothesized as the primary predictor) affects “the outcome” (the variable being predicted).

The four steps to establish mediation include: (1) a simple regression to determine if the causal variable predicts the outcome variable; (2) a simple regression to determine if the causal variable predicts the mediator; (3) a multiple regression to determine if the mediator predicts the outcome, while controlling for the predictor; and, (4) a multiple regression to determine if the effect of the causal variable on the outcome is reduced in the presence of the mediator. Following the precedent set in other identity styles research (e.g., Seaton & Beaumont, 2011, 2013, 2014), the testing of step 4 will be accomplished by conducting a hierarchical (multiple) regression in which the causal variable is entered in the first step of the regression equation, and the mediators are entered in the second step of the regression equation. That method relies on the benefits of the hierarchical method of multiple regression for determining whether the addition of the mediators changes the variance accounted for in the prediction of the outcome. In the results of these hierarchical regression analyses, when

the strength of the prediction of the outcome by the causal variable is no longer significant, then complete mediation is assumed. However, if the strength of the prediction of the outcome by the causal variable is reduced, but still significant, then partial mediation is assumed. Finally, to test the amount of mediation, also called the indirect effect, a bootstrap estimation was added following the PROCESS procedure by Hayes (2017).

METHOD

Participants and Procedure

Data were collected via the University of Northern British Columbia (UNBC) Psychology Research Participation System in the time from September 2020 until April 2021. Students enrolled in undergraduate psychology courses during this period were eligible to participate. A total of 286 students completed the survey throughout the data collection period. After removing outliers in terms of age (those older than 25 years of age) and speed of survey completion (those faster than 17 minutes), a final sample of 226 participants remained. The participants ranged in age from 18 to 25 years ($M = 20.29$, $SD = 1.83$), and the majority of the sample were Caucasian (73.5%), followed by Other (10.2%), Asian-Canadian (6.2%), Aboriginal (5.3%), Indo-Canadian (3.5%) and African-Canadian (1.3%).

Data collection consisted of a series of questionnaires presented online (described below) and completion took approximately 30 minutes ($M = 31.60$, $SD = 13.01$). The participants were granted 1% bonus credit towards their course grade based on the UNBC Psychology Program criteria of 1% per hour or part thereof spent participating in research. Participants were free to withdraw from the study at any time without penalty.

Completion of the questionnaires was preceded by an introductory information and informed consent page (Appendix A) and a demographics questionnaire (Appendix B). The measures described below were presented in a randomized order across participants.

Measures

Identity Style Inventory – Revised (ISI5; Appendix C; Berzonsky et al., 2013). The ISI5 is based on Berzonsky's (1989) original Identity Style Inventory and consists of 36-items that measure the extent to which individuals use three different processing styles when

confronted with identity-relevant information: the informational identity style (nine items), the normative identity style (nine items), and the diffuse-avoidant identity style (nine items). Additionally, it provides an index of identity commitment (nine items). Respondents are asked to indicate how characteristic each item is of themselves using a 5-point Likert scale ranging from 1 (*not at all like me*) to 5 (*very much like me*). Negatively worded items are reverse scored before the appropriate items for each subscale are summed. In the present study, Cronbach's alphas were .76 for the informational style, .73 for the normative style, .80 for the diffuse-avoidant style, and .83 for identity commitment. These values are slightly below those found by Berzonsky et al. (2013) which were .86, .82, .87, and .85 for the informational identity style, the normative identity style, the diffuse-avoidant identity style, and identity commitment, respectively (Berzonsky et al., 2013).

The Self-Reflection and Insight Scale (SRIS; Appendix D; Grant et al., 2002). The SRIS is a 20-item self-report measure that assesses an individual's level of self-reflection and insight. The subscales consist of eight and 12 items, respectively and the participants are asked to indicate how strongly they agree or disagree to each item using a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Negatively worded items are reverse scored and responses to items composing each of the subscales are summed. Reliability and validity of the SRIS have been established and reported alpha values were .91 and .87 for self-reflection and insight, respectively (Grant et al., 2002). In the present study, alpha values were .89 for self-reflection and .85 for insight.

New Rumination Scale (Appendix E; Treynor et al., 2003). The New Rumination Scale is based on the Ruminative Responses Scale from the Response Styles Questionnaire (Nolen-Hoeksema, 1991), which was refined by eliminating items previously confounded

with depression. The new scale is a 10-item self-report measure that assesses two factors of rumination: reflection (five items) and brooding (five items). The latter was used as the measure of rumination in this study as it captures the maladaptive component of rumination and confounds with reflection are avoided. Participants are asked to indicate how frequently they think or act a certain way when they are sad. Answers are gathered using a 4-point Likert scale ranging from 1 (*almost never*) to 4 (*almost always*). Scores for each scale are computed by summing the respective items. Reported alpha values were relatively low with .72 and .77 for reflection and brooding, respectively. In the present study, alpha values were .73 for reflection and .74 for brooding. However, the sensitivity of alpha coefficients to item number should be kept in mind when judging these psychometrics.

The Self-Compassion Scale (SCS; Appendix F; Neff, 2003b). The SCS is a 26-item self-report measure that was designed to measure six dimensions of self-compassion: self-kindness (five items), self-judgement (five items), common humanity (four items), isolation (four items), mindfulness (four items), and over-identification (four items). Using a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*), participants are asked to indicate the frequency with which they engage in a given behavior. Three of the 6 subscales (self-judgement, isolation, and over-identification) represent non-self-compassionate behavior and require being reverse-scored. The scores of the appropriate items for each subscale are averaged to determine subscale scores. An overall self-compassion score is obtained by calculating the total mean across all subscales. The overall score was used as the measure of self-compassion in this study. The construct validity of the SCS has been demonstrated and its psychometric properties are satisfying (Neff, 2003b). The overall internal consistency found by the creators of the measure was .92 with the subscales ranging

from .78 (self-kindness) to .85 (over-identification). In the present study, values ranged from .76 (common humanity) to .86 (self-kindness).

The Psychological Well-Being Scale (PWB; Appendix G; Ryff, 1989). The PWB scale, developed by Ryff (1989), measures six aspects of well-being and happiness: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. A shortened version with 14 items per subscale was used (Ryff & Essex, 1992). Respondents rate how strongly they agree or disagree to each item using a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). After reverse-scoring negatively worded items, subscale scores are computed by summing the appropriate items. The subscales showed internal consistencies from .83 to .91 and correlated with their parent scales from .97 to .98 (Ryff & Essex, 1992).

Based on research by Abbott et al. (2006), the four subscales that are most highly intercorrelated were added together to form a higher-order psychological well-being dimension. The four scales are: environmental mastery, purpose in life, personal growth, and self-acceptance (Abbott et al., 2006). This higher-order dimension was used (by summing the scores for the four relevant sub-scales) as the measure of psychological well-being in the present study. Internal consistencies in the present study ranged from .82 (autonomy) to .91 (self-acceptance) for the subscales and the higher-order psychological well-being dimension showed an internal consistency of .95.

RESULTS

Data Screening and Overview of Analyses

Prior to conducting the analyses, the data were examined for missing values, outliers, normality, and for those participants who completed the survey very quickly. There were no missing data for any of the scales or responses to the demographic questions. The distribution of scores for all variables met the criteria for normality, and no outliers were revealed that called for an exclusion of participants. However, 17 cases were excluded on the grounds of an unrealistically short time of completion. A completion time of more than one standard deviation below the mean completion time was considered unrealistic.

First, preliminary analyses of possible gender differences were conducted by examining differences in mean scores on all variables, as well as differences in the strengths of correlations among all variables as a function of gender. Second, the contribution of the different identity styles to psychological well-being beyond the effect of identity commitment was evaluated. Third, the research hypotheses were examined in two steps: (1) correlational analyses were conducted to examine relationships among variables for the users of the relevant styles, and (2) mediation analyses were conducted following Baron's and Kenny's (1986) method to determine the roles of self-compassion and self-insight in the predictive relationship between self-reflection and self-rumination, respectively, and psychological well-being. Finally, exploratory analyses were conducted to examine predictive relationships for users of the normative identity style. An alpha level of .05 was used for all analyses unless otherwise stated.

Preliminary Analyses of Gender Differences

Descriptive statistics are presented in Table 1. A multivariate analysis of variance

Table 1*Gender Differences in Identity Styles, Self-Variables, and Psychological Well-Being*

	Total	Women	Men		
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>F</i>	<i>Partial η^2</i>
Informational style	34.99 (5.02)	35.45 (4.97)	33.72 (4.96)	5.41	.024
Normative style	21.26 (5.13)	21.07 (4.97)	21.77 (5.56)	0.82	.004
Diffuse-avoidant style	22.58 (6.51)	22.22 (6.55)	23.52 (6.38)	1.78	.008
Identity commitment	32.28 (6.56)	32.46 (6.61)	31.79 (6.45)	0.47	.002
Self-reflection	54.15 (9.72)	54.67 (9.58)	52.75 (10.04)	1.73	.008
Insight	31.64 (7.03)	31.22 (6.83)	32.77 (7.47)	2.17	.010
Brooding	12.58 (3.34)	12.87 (3.43)	11.80 (2.97)	4.60	.020
Self-compassion	2.78 (0.64)	2.70 (0.63)	3.01 (0.63)	10.73*	.046
Psychological well-being	236.88 (38.15)	238.35 (38.38)	232.89 (37.54)	0.91	.004
PWB Autonomy	55.14 (9.99)	54.34 (9.92)	57.31 (9.93)	4.00	.018
PWB Positive Relations	60.13 (12.07)	60.81 (11.57)	58.28 (13.26)	1.97	.009

Note. * $p < .0045$, $N = 165$ women, 61 men

(MANOVA) was conducted to examine gender differences. The multivariate effect of gender was significant, $F(11, 214) = 3.88$, $p < .001$, partial $\eta^2 = .166$. A Bonferroni correction was applied to the univariate effects. At a corrected significance level of .0045, the gender effect was significant for the self-compassion scale for which men scored significantly higher than women. For the rest of the variables, the gender effect was not significant. Gender differences were further examined by conducting separate correlational analyses for men and women and then comparing the strengths of correlations between variables (via z -tests) as a

function of gender. Of the 55 z -tests conducted, only two were significant. The strength of the correlation between the diffuse-avoidant identity style and self-reflection was significantly greater for women ($r = -.37, p < .001$, for women; $r = -.08, p = .523$, for men; $z = -2.02, p = .043$), whereas the strength of correlation between the normative identity style and self-compassion was significantly greater for men ($r = -.33, p = .009$, for men; $r = -.04, p = .623$, for women; $z = 2.01, p = .04$).

Subsequent analyses were conducted on the sample as a whole for the following reasons: (1) similar patterns of correlations were found for both men and women; (2) significant differences in the strength of correlations were limited to two out of 55 instances, neither of which was directly relevant to the hypotheses proposed in this thesis; and (3) the MANOVA yielded only one significant univariate effect of gender.

Intercorrelations Among Identity Variables

Consistent with other identity styles research, the sub-scales of the ISI5 were intercorrelated. Specifically, the informational style was negatively correlated with the normative style ($r = -.23, p < .001$) and the diffuse-avoidant style ($r = -.30, p < .001$), and the normative and diffuse-avoidant styles were positively correlated ($r = .23, p < .001$). In addition, all three styles were significantly correlated with identity commitment: $r = .26, p < .001$, for the informational style; $r = .16, p = .016$, for the normative style; and, $r = -.57, p < .001$, for the diffuse-avoidant style.

Given those intercorrelations, before proceeding with the analyses that test the hypotheses, a hierarchical regression was conducted to determine if each identity style uniquely predicted psychological well-being while controlling for the overlapping variance accounted for by identity commitment. Following the precedent established in other identity

styles research (e.g., Beaumont, 2011), in this analysis, identity commitment was entered in the first step of the hierarchical regression, and the identity styles were added in step 2, in order to be able to examine the unique contribution of each style to the prediction of psychological well-being. As shown in Table 2, the step 2 beta weights confirmed that each identity style made a unique contribution to the prediction of psychological well-being, while statistically controlling for the effects of identity commitment. These results justified moving forward with testing the hypotheses as they propose effects specific to individual identity styles.

Hypothesis 1: Informational Style Users

To establish a sample of high identity style scorers to test Hypothesis 1, a median split was applied to the whole sample with respect to the ISI-5 sub-scale for the informational identity style ($Mdn = 35.5$). Thus, the following analyses were conducted with a sub-sample of 113 participants who were considered as high informational identity style scorers (i.e.,

Table 2

Result of a Hierarchical Regression Predicting Psychological Well-Being by the Identity Styles Controlling for Identity Commitment

	Step 1 Beta	Step 1 Total R^2	Step 2 Beta	Step 2 Increase R^2
Identity commitment	.52***	.27***	.34***	.14***
Informational style			.17**	.14***
Normative style			-.12*	.14***
Diffuse-avoidant style			-.28***	.14***

Note. $N = 226$; * $p < .05$; ** $p < .01$; *** $p < .001$

those who scored above the median).

Correlational Relationships

Pearson correlations for Hypothesis 1 are displayed in Table 3. As expected, self-insight, self-compassion, and psychological well-being were positively intercorrelated for the high informational style scorers. However, contrary to the expectations, self-reflection was not significantly correlated with the other variables relevant to this hypothesis (i.e., self-insight, self-compassion, and psychological well-being).

Mediation Analyses

A standard regression was conducted to test Step 1 of the mediation analyses, and it confirmed that the predictive relationship between self-reflection and psychological well-being was not significant ($\beta = .11$, $R^2 = .01$, $p = .261$). Thus, the remaining steps of the Baron and Kenny (1986) method to test mediation could not be conducted.

Do Self-Reflection and the Informational Identity Style Predict Psychological Well-Being?

Since the mediation analyses were cut short by the non-significant relationship between self-reflection and psychological well-being using the median split sample, a

Table 3

Patterns of Correlations for Users of the Informational Identity Style

Variable	1	2	3	4
1. Self-reflection	---			
2. Self-insight	.18	---		
3. Self-compassion	.03	.36***	---	
4. Psychological well-being	.11	.41***	.64***	---

Note. $N = 113$; * $p < .05$. ** $p < .01$. *** $p < .001$

decision was made to test an alternate mediation model using the full sample. These alternate mediation analyses tested: (1) whether psychological well-being was positively predicted by the informational identity style and self-reflection; and (2) whether that positive predictive relationship was mediated by self-insight and self-compassion. Thus, these alternate analyses essentially tested the same predicted links posited for Hypothesis 1, but did so using the sample as a whole, which allowed for the inclusion of the informational identity style as a continuous variable. This approach was further justified by the significant correlation between self-reflection and the informational identity style in the full sample ($r = .51, p < .001$).

To establish step 1 of the Baron and Kenny (1986) method, a multiple regression was conducted to confirm that the causal variables, self-reflection, and the informational style, significantly predicted psychological well-being. The informational identity style significantly and positively predicted psychological well-being ($\beta = .34, R^2 = .14, p < .001$); however, self-reflection did not significantly predict psychological well-being ($\beta = .07, R^2 = .14, p = .362$). As a result, a trimmed model that included only the informational style as the sole predictor was tested (the rest of the alternate model remained the same: self-insight and self-compassion as the mediators and psychological well-being as the outcome).

A simple regression revealed that the informational style significantly and positively predicted psychological well-being, confirming Step 1 of the mediation analyses ($\beta = .37, R^2 = .14, p < .001$). Step 2 was also supported via two separate simple regressions, confirming that the informational identity style significantly and positively predicted the two mediators: $\beta = .25, R^2 = .06, p < .001$, for self-insight; $\beta = .16, R^2 = .02, p = .019$, for self-compassion. A multiple regression was conducted to confirm Step 3, namely whether each of the mediators

predicted psychological well-being in the presence of each other and when considering the influence of the informational identity style: $\beta = .25$, $R^2 = .51$, $p < .001$, for self-insight; $\beta = .49$, $R^2 = .51$, $p < .001$, for self-compassion.

Finally, Step 4 was also confirmed via a hierarchical regression which revealed that the positive prediction of psychological well-being by the informational identity style was partially mediated by self-insight and self-compassion. This partial mediation was evident by the fact that the beta weight for the informational style dropped on step 2 of the hierarchical regression ($\beta = .37$, $R^2 = .14$, $p < .001$, for step 1; $\beta = .23$, $R^2 = .51$, $p < .001$, for step 2). In order to test the indirect effect of the informational identity style on psychological well-being via the mediators (self-insight and self-compassion) a bootstrap estimation was conducted. The bias corrected bootstrap was .14, 95% CI [.05, .22], which suggest a significant indirect effect and confirms the partial mediation. Figure 3 provides a visual model illustrating the final mediation model for these analyses.

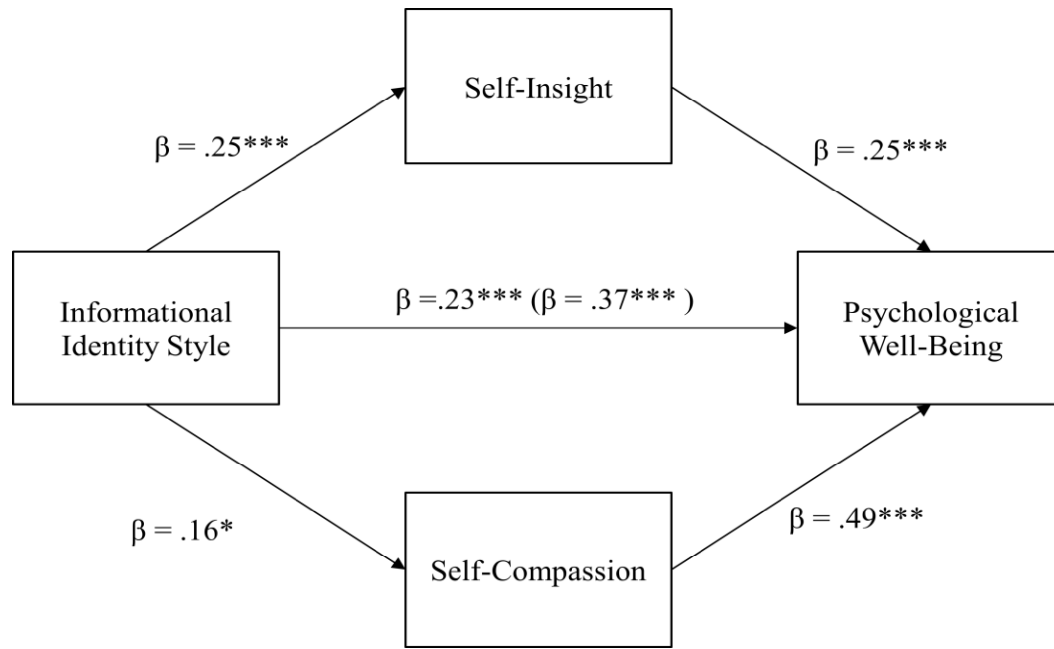
What Predicts-Self-Insight?

Because the mediation analyses conducted so far had not yet yielded the possibility of analyzing self-reflection in relation to self-insight, even though the two variables are theoretically and statistically related, a decision was made to directly explore the role of self-reflection in the prediction of self-insight. Thus, a second alternate model was tested (via the Baron and Kenny method) to determine whether self-insight was positively predicted by self-reflection and the informational identity, and whether those positive predictive relationships were mediated by self-compassion.

Step 1 of the Baron and Kenny procedure was tested via a multiple regression which revealed a surprising finding: The informational identity style significantly and positively

Figure 3

The Mediating Role of Self-Insight and Self-Compassion in the Prediction of Psychological Well-Being by the Informational Identity Style



Note. $N = 226$; * $p < .05$; ** $p < .01$; *** $p < .001$

predicted self-insight ($\beta = .22$, $R^2 = .07$, $p = .004$), but self-reflection did not significantly predict self-insight ($\beta = .06$, $R^2 = .07$, $p = .393$). Thus, even though the correlation between self-reflection and self-insight was significant ($r = .18$, $p = .008$), in the multiple regression, self-reflection did not significantly predict self-insight due to the overlapping variance accounted for by the informational style.

As a result, self-reflection was removed as a causal variable, and a simple regression was conducted with the informational identity style as the single causal variable. That analysis satisfied Step 1 of the mediation method: $\beta = .25$, $R^2 = .06$, $p < .001$. Step 2 was also supported via a simple regression, confirming that the informational identity style significantly and positively predicted self-compassion: $\beta = .16$, $R^2 = .02$, $p = .019$. A multiple

regression was conducted to confirm Step 3, namely whether the mediator (self-compassion) predicted self-insight when considering the influence of the informational identity style: $\beta = .36, R^2 = .19, p < .001$.

Finally, Step 4 was also confirmed via a hierarchical regression which revealed that the positive prediction of self-insight by the informational identity style was partially mediated by self-compassion. This partial mediation was evident by the fact that the beta weight for the informational style dropped (albeit a small drop) on step 2 of the hierarchical regression ($\beta = .25, R^2 = .06, p < .001$, for step 1; $\beta = .19, R^2 = .19, p = .002$, for step 2). The indirect effect was further tested using a bootstrap estimation which yielded an effect of .06, 95% CI [.00, .12] and suggests that in addition to its direct effect, the informational style has a small indirect effect through self-compassion. Figure 4 provides a visual model illustrating the final mediation model for these analyses.

Hypothesis 2: Diffuse-Avoidant Style Users

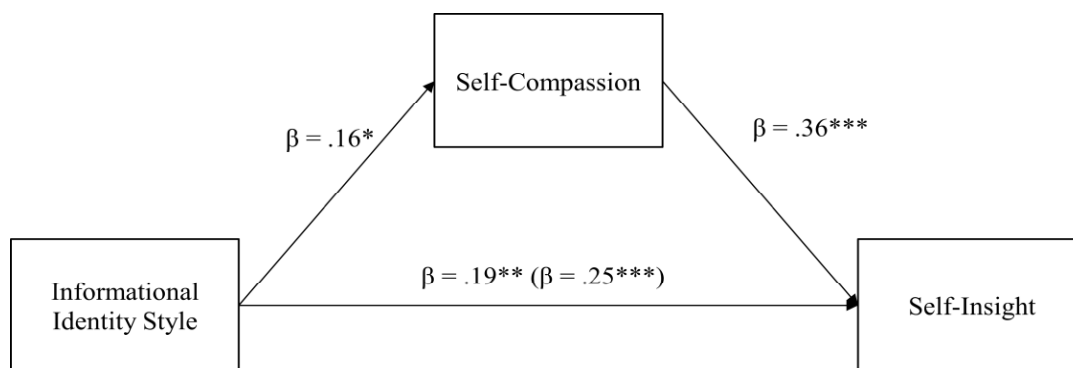
To establish a sample of high diffuse-avoidant style scorers to test Hypothesis 2, a median split was applied to the whole sample with respect to the diffuse-avoidant identity style sub-scale scores ($Mdn = 23.00$). Thus, the following analyses were conducted with a sub-sample of 101 participants who were considered as high diffuse-avoidant identity style scorers (i.e., those who scored above the median).

Correlational Relationships

Pearson correlations relevant to Hypothesis 2 are displayed in Table 4. As expected, for users of the diffuse-avoidant identity style rumination was negatively related to self-insight, self-compassion, and psychological well-being. At the same time, self-insight, self-compassion, and psychological well-being were positively intercorrelated.

Figure 4

The Mediating Role of Self-Compassion in the Prediction of Self-Insight by the Informational Identity Style



Note. $N = 226$; * $p < .05$; ** $p < .01$; *** $p < .001$

Mediation Analyses

The zero-order intercorrelations between rumination, self-insight, self-compassion, and psychological well-being were found to be as expected for users of the diffuse-avoidant

Table 4

Patterns of Correlations for Users of the Diffuse-Avoidant Identity Style

Variable	1	2	3	4
1. Self-rumination	---			
2. Self-insight	-.32**	---		
3. Self-compassion	-.59**	.35***	---	
4. Psychological well-being	-.37***	.41***	.58***	---

Note. $N = 101$; * $p < .05$. ** $p < .01$. *** $p < .001$

identity style. Hence, Baron and Kenny's (1986) four steps in establishing mediation were conducted to test: (1) whether psychological well-being was negatively predicted by rumination; and (2) whether that negative predictive relationship was mediated by self-insight and self-compassion.

A standard regression was conducted to test Step 1 of the mediation analyses, and it confirmed that self-rumination significantly and negatively predicted psychological well-being ($\beta = -.37$, $R^2 = .14$, $p < .001$). Step 2 was also supported via two separate simple regressions, confirming that self-rumination significantly and negatively predicted the two mediators: $\beta = -.32$, $R^2 = .10$, $p = .001$, for self-insight; $\beta = -.59$, $R^2 = .34$, $p < .001$, for self-compassion. A multiple regression was conducted to confirm Step 3, namely whether each of the mediators predicted psychological well-being in the presence of each other and when considering the influence of self-rumination: $\beta = .24$, $R^2 = .38$, $p = .008$, for self-insight; $\beta = .49$, $R^2 = .38$, $p < .001$, for self-compassion.

Finally, Step 4 was tested via a hierarchical regression in which self-rumination was entered on step one, and both mediators were entered together on step two. That analysis revealed that the negative prediction of psychological well-being by self-rumination was completely mediated by self-insight and self-compassion. That conclusion is supported by the fact that the beta weight for self-rumination was no longer significant in this analysis that included the mediators ($\beta = -.01$, $R^2 = .38$, $p = .957$) as compared to the regression that did not include the mediators ($\beta = -.37$, $R^2 = .14$, $p < .001$). The bias corrected bootstrap of the indirect effect was $-.36$, 95% [CI $-.51$, $-.24$], which supports the mediation effect. In summary, for high diffuse-avoidant style users, self-rumination negatively predicts

psychological well-being indirectly via low self-insight and self-compassion. Figure 5 shows the final mediation model.

Exploratory Analyses for Users of the Normative Identity Style

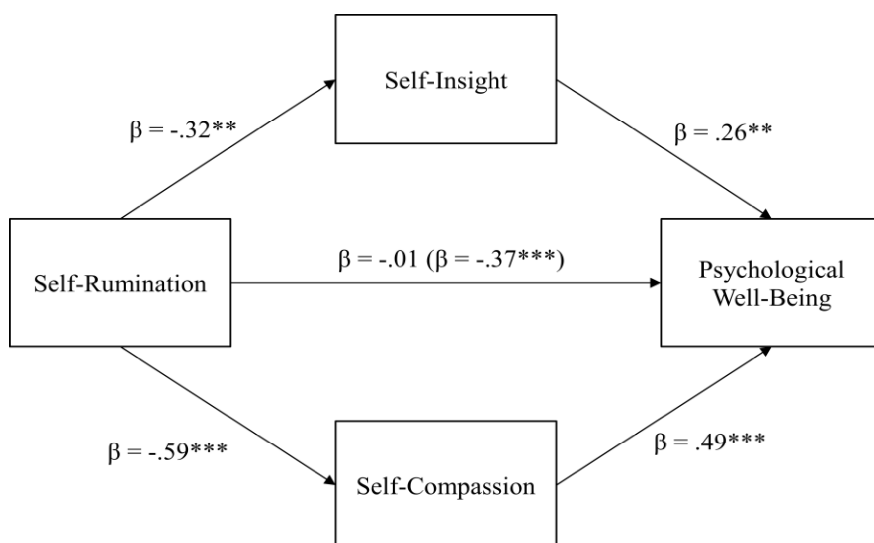
To establish a sample of high normative style scorers to explore predictive relationships for this group, a median split was applied to the whole sample with respect to the normative identity style sub-scale scores ($Mdn = 21.00$). Thus, the following analyses were conducted with a sub-sample of 107 participants who were considered as high normative identity style scorers (i.e., those who scores above the median).

Correlational Relationships

Due to mixed findings in previous studies, no specific hypotheses were formulated for

Figure 5

Model for High Diffuse-Avoidant Style Users: The Mediating Role of Self-Insight and Self-Compassion in the Prediction of Psychological Well-Being



Note. $N = 101$; * $p < .05$. ** $p < .01$. *** $p < .001$

users of the normative identity style. Table 5 shows the zero-order Pearson correlations between the “self” variables and psychological well-being for the high normative style users. In summary, rumination was negatively related to self-insight, self-compassion, and psychological well-being, which were all positively intercorrelated. Self-reflection was positively related to self-rumination while being unrelated to self-insight, self-compassion, and most importantly, psychological well-being.

Mediation Analyses

The zero-order intercorrelations between rumination, self-insight, self-compassion, and psychological well-being for normative style users were found to be identical in direction and similar in strength to those found for users of the diffuse-avoidant identity style. Hence, the same mediation model was tested for the sample of high normative style users. Specifically, it was tested: (1) whether psychological well-being was negatively predicted by rumination; and (2) whether that negative predictive relationship was mediated by self-

Table 5

Patterns of Correlations for Users of the Normative Identity Style

Variable	1	2	3	4	5
1. Self-reflection	---				
2. Self-rumination	.20*	---			
3. Self-insight	.06	-.44***	---		
4. Self-compassion	-.05	-.59***	.42***	---	
5. Psychological well-being	.19	-.36***	.54***	.61***	---

Note. $N=107$; * $p < .05$; ** $p < .01$; *** $p < .001$

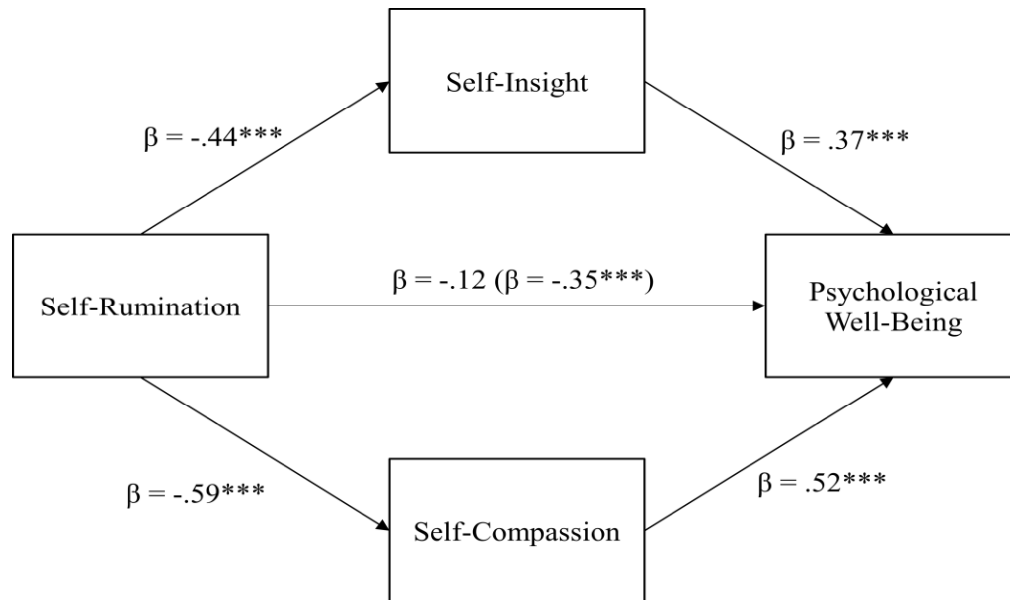
insight and self-compassion.

A simple regression was conducted to test Step 1 of the mediation analyses, and it confirmed that self-rumination significantly and negatively predicted psychological well-being ($\beta = -.36, R^2 = .13, p < .001$). Step 2 was also supported via two separate simple regressions, confirming that self-rumination significantly and negatively predicted the two mediators: $\beta = -.44, R^2 = .19, p < .001$, for self-insight; $\beta = -.59, R^2 = .35, p < .001$, for self-compassion. A multiple regression was conducted to confirm Step 3, namely whether each of the mediators predicted psychological well-being in the presence of each other and when considering the influence of self-rumination: $\beta = .37, R^2 = .48, p < .001$, for self-insight, $\beta = .52, R^2 = .48, p < .001$, for self-compassion.

Finally, Step 4 was tested via a hierarchical regression in which self-rumination was entered on step one, and both mediators were entered together on step two. That analysis revealed that the negative prediction of psychological well-being by self-rumination was completely mediated by self-insight and self-compassion. That conclusion is supported by the fact that the beta weight for self-rumination was no longer significant in this analysis that included the mediators ($\beta = -.12, R^2 = .48, p = .201$) as compared to the regression that did not include the mediators ($\beta = -.36, R^2 = .13, p < .001$). The bias corrected bootstrap of the indirect effect was $-.47$, 95% CI $[-.64, -.33]$, confirming the mediation. In summary, for high normative style users, self-rumination negatively predicted psychological well-being via low self-insight and self-compassion. Figure 6 shows the final mediation model.

Figure 6

Model for High Normative Style Users: The Mediating Role of Self-Insight and Self-Compassion in the Prediction of Psychological Well-Being by Self-Rumination



Note. $N=107$; * $p < .05$; ** $p < .01$; *** $p < .001$

DISCUSSION

The purpose of this thesis was to examine the relationship between self-reflection and self-insight and how they predict psychological well-being as a function of individual differences in identity styles, while also considering the roles of rumination and self-compassion. The essential premise to be examined was whether self-insight and self-compassion are the psychological capacities which foster a beneficial link between identity processing and well-being. This aim was accomplished by: (1) determining whether self-insight and self-compassion mediate the predictive relationship between self-reflection and psychological well-being for users of the informational identity style (Hypothesis 1); (2) determining whether self-insight and self-compassion mediate the predictive relationship between rumination and psychological well-being for users of the diffuse-avoidant identity style (Hypothesis 2); and, (3) exploring the associations between self-reflection, rumination, self-insight, and self-compassion in the prediction of psychological-wellbeing for users of the normative identity style.

For the informational identity style, the hypothesized pattern was modified based on the findings of this study. The hypothesized pattern of predictive relationships for users of the diffuse-avoidant identity style was supported. Users of the normative identity style showed the same pattern as users of the diffuse-avoidant identity style. A detailed discussion of the findings is presented below.

Self-Reflective Processes and Psychological Well-Being Among Users of the Informational Identity Style

For individuals who scored highly on the informational style, it was expected that self-reflection would positively predict psychological well-being, and that this relationship

would be mediated by high self-insight and self-compassion. However, in this study, self-reflection did not predict psychological well-being for high scorers on the informational identity style. Therefore, hypothesis 1 was not supported by the research findings.

Alternate analyses using the whole sample explored: (1) whether psychological well-being was positively predicted by the informational identity style and self-reflection; and (2) whether that positive predictive relationship was mediated by self-insight and self-compassion. It turned out, that, when considering the informational identity style, self-reflection did not provide a significant contribution to the prediction of psychological well-being, pointing to a great share of overlapping variance. As expected, self-insight and self-compassion acted as partial mediators in the predictive relationship between the informational identity style and psychological well-being. It seems, then, that what is driving the link between the informational identity style and psychological well-being is self-compassion and self-insight rather than self-reflection. In other words, contrary to the focus on the self-reflective aspects of the informational identity style in previous research (e.g., Berzonsky & Luyckx, 2008) in the prediction of psychological well-being, this identity style is not simply grounded in a person's tendency towards self-reflection.

In line with the current findings, previous research has shown that users of the informational identity style achieve high levels of self-insight and self-compassion (Beaumont & Pryor, 2013), and that the use of this style is predictive of psychological well-being (Vleioras & Bosma, 2005). High levels of self-reflection and self-awareness are also characteristic of informational individuals (Berzonsky & Luyckx, 2008), but it has been suggested that self-reflection in itself neither facilitates nor detracts from well-being (Lyke,

2009). The current findings support this notion while pointing to a greater importance of self-insight and self-compassion for psychological well-being.

In the case of psychological well-being, self-reflection did not make a unique contribution beyond what was accounted for by the informational identity style. It still seemed worthwhile to determine the role of self-reflection in self-insight, which in turn is paramount for psychological well-being. Self-reflection and self-insight are theoretically and statistically related variables. Yet, in the previous analyses, self-reflection could not be analyzed in relation to self-insight. Therefore, the role of self-reflection in the prediction of self-insight was analyzed separately. Once again, despite the significant zero-order correlation of self-reflection and self-insight, the contribution of self-reflection was not significant when the informational identity style was considered due to overlapping variance. The positive prediction of self-insight by the informational identity style was partially mediated by self-compassion. This suggests that the informational identity style has a direct positive effect on self-insight, as well as a small indirect effect through self-compassion. These findings beg the question whether it is not self-reflection per se, but rather the self-reflective qualities specific to the informational identity style that are the real drivers of self-insight. This conclusion is supported by: (1) the fact that self-reflection did predict self-insight until the informational identity style was included, which suggests that all the self-insight promoting qualities of self-reflection seem to be captured in the informational identity style; and (2) the fact that the informational identity style is an even better predictor of self-insight suggesting additional advantages beyond those of self-reflection. Grant et al. (2002) originally characterized self-reflection and insight as logically independent constructs, with the thought in mind that self-reflection may, but does not readily, lead to self-insight. Hixon

and Swann (1993) pointed out that the conditions under which self-reflection takes place matter with regard to attaining self-insight. Given that it was the informational identity style, a style characterized by high self-reflection, rather than self-reflection per se, that accounted for self-insight, it seems that deploying an informational identity style may be one such favorable circumstance that fosters self-insight. In other words, the informational identity style offers more than just self-reflection.

It remains to be determined what makes the informational identity style so conducive to self-insight. The use of this style is generally positively associated with experiential openness and introspectiveness (Berzonsky, 2003). Users of the informational identity style “actively seek out, evaluate, and use self-relevant information” (Berzonsky & Kuk, 2000, p. 83). One possible explanation for why they can benefit from their capacity for introspection is the style’s association with self-compassion, a notion that is supported by the present finding that self-compassion mediated the relationship between the informational identity style and self-insight. Through the alleviation of self-condemnation (Neff, 2003a) and creating a more positive affective state, self-compassion affords a mental state in which a more careful, thorough processing of (unflattering) self-relevant information can take place (Aspinwall, 1998), which ultimately facilitates clarity and accuracy of self-appraisals (Neff, 2003a). Stefan and Cheie (2020) consider self-reflection a healthy strategy as long as it is undertaken being self-compassionate, a condition that informational individuals meet.

Beaumont (2011) argues that the informational identity style may be better described as “growth-oriented identity style.” While it is true that individuals using this style are information-oriented in the construction and maintenance or revision of their identity (Berzonsky, 1990), they are further oriented “toward the growth of integrated (wise) self-

knowledge” (Beaumont, 2011, p. 177). This orientation may be linked to self-insight. Growth-oriented individuals are characterized by a particular way of processing new information about themselves that leads to greater self-knowledge and wisdom. They are committed to their identities yet possess a degree of identity flexibility which makes the development of wisdom and self-knowledge possible in the first place. Specifically, their flexibility allows for the evolvment of their identity in the face of congruent and incongruent self-relevant information, rather than avoiding such information in order to maintain their inflexible identity (Beaumont, 2017). Crucial in their capacity for flexibility and growth are contemplative processes or “ways of understanding and accepting the nature of one’s inner and outer reality through direct experience and observation in the present moment” (Beaumont, 2017, p. 63). By definition, contemplative processes are favorable for self-insight. Contemplative processes uniquely characterize growth-oriented individuals (Beaumont, 2017).

What is more, it has been found that the informational identity style is positively related to all three facets of wisdom (Beaumont, 2011). These are: (1) cognitive wisdom or “the respondent’s capability and desire to understand a situation or phenomenon thoroughly, knowledge of the positive and negative aspects of human nature, acknowledgment of ambiguity and uncertainty, and ability to make important decisions despite life’s unpredictability and uncertainties” (Ardelt, 2008, pp. 222–223); (2) reflective wisdom or “the respondent’s capability and willingness to look at phenomena and events from multiple perspectives and an absence of subjectivity and projections” (Ardelt, 2008, p. 223); and, (3) affective wisdom or “the presence of positive, caring, and nurturant emotions and behavior and the absence of indifferent or negative emotions and behavior towards others” (Ardelt,

2008, p. 223). One can readily see how the desire to understand phenomenon and human nature and the capacities for decision-making, perspective taking, objectivity, and positive emotions toward oneself and others may enhance self-insight.

Self-Reflective Processes and Psychological Well-Being Among Users of the Diffuse-Avoidant Style

Hypothesis 2 was fully supported. Self-insight and self-compassion fully mediated the relationship between rumination and psychological well-being for users of the diffuse-avoidant identity style.

The findings in this research confirm the expectations that were held regarding the diffuse-avoidant individual's self-reflective capacities and are in line with previous research. Individuals who use a diffuse-avoidant identity processing style are described to be prone to ruminate (Berzonsky & Luyckx, 2008), lack self-insight (Berzonsky & Luyckx, 2008), and typically fail to be self-compassionate (Beaumont & Pryor, 2013).

The use of a diffuse-avoidant identity processing style also negatively affects psychological well-being (Vleioras & Bosma, 2005). The regression findings shed some light on the role of the above-mentioned self-reflective capacities in the commonly low psychological well-being of users of this style. Although rumination did negatively predict psychological well-being, it did not make a unique contribution to the prediction beyond self-insight and self-compassion. It seems, then, that it is the diffuse-avoidant individual's lack of capacity for self-insight and self-compassion that is driving their propensity for low psychological well-being.

Related research provides a number of possible explanations for the inability for self-insight and self-compassion of diffuse-avoidant individuals. For instance, they show low

introspectiveness and openness (Berzonsky & Sullivan, 1992) which is clearly essential for self-insight. Their strategic avoidance and self-handicapping behavior (Berzonsky & Ferrari, 2009) is likely unfavorable in the acquisition of self-insight. They further rely on avoidance and disengagement strategies in coping (Beaumont & Seaton, 2011), techniques that inhibit self-knowledge, without which self-insight is impossible. It was also found that diffuse-avoidant individuals are steeped in shame and guilt and that as a result they avoid self-referential information (Lutwak et al., 1998), information that is necessary for self-insight. Moreover, shame and guilt are in direct opposition to self-compassion, the lack of which is disadvantageous to psychological well-being in itself and further encumbers the process of gaining self-insight because the emotional safety typically provided by self-compassion is then missing. Diffuse-avoidant individuals are also neurotic, a trait that is qualitatively identical to being non-self-compassionate (Kandler et al., 2017).

Self-Reflective Processes and Psychological Well-Being Among Users of the Normative Style

Due to inconsistent findings existing in the literature, no expectations were held regarding the pattern of predictive relationships between self-reflective processes and psychological well-being for users of the normative identity style. Interestingly, in this study, the findings for the normative style users closely mirrored the patterns found for diffuse-avoidant individuals. Namely, rumination negatively predicted psychological well-being, and this relationship was fully mediated by self-insight and self-compassion. As for diffuse-avoidant individuals, it seems that a lack of self-insight and self-compassion is compromising the psychological well-being of normative style users.

These findings are interesting given that previous research has suggested that, for the most part, deploying a normative identity processing style neither promotes nor obstructs most markers of psychological well-being (Beaumont, 2011, 2017). In the present study, however, use of the normative identity style negatively predicted psychological well-being. Neither self-insight, nor self-compassion were predicted by the normative identity style, which is in line with previous research (Beaumont & Pryor, 2013; Bruser & Beaumont, 2010). Additionally, the use of a normative identity style was negatively related to self-reflection (Luyckx et al., 2007), while also fostering ruminative tendencies (Berzonsky & Luyckx, 2008). While these findings are all in line with previous research, previous studies did not show negative effects of the normative identity style on psychological well-being. Due to their not being associated with the normative identity style, self-insight and self-compassion cannot act as protective factors against the negative consequences of rumination on psychological well-being.

One factor that has frequently been found to drive or protect the well-being of normative individuals is their typically high identity commitment (Berzonsky, 2003). One possible explanation for why the protective qualities of their commitment may have failed the normative individuals in this research are the circumstances under which this research took place. The data collection ran from September 2020 until April 2021, the height of the COVID-19 pandemic. During this time, social interactions were heavily restricted in Canada, which may have been a special challenge for normative individuals who massively rely on significant others and referent groups in their identity formation (Berzonsky, 2011). They also tend to have a low tolerance for ambiguity (Berzonsky, 1990), with which the COVID pandemic frequently confronted them.

The Big Picture

The general findings regarding the benefits, drawbacks, and relationships of self-reflection, self-insight, rumination, self-compassion, and psychological well-being are in agreement with previous research. Benefits of self-compassion for psychological well-being (e.g., Homan, 2016), for self-insight (Barnard & Curry, 2011; Neff, 2003a), and as a protective factor against the effects of rumination, (Neff, 2003b; Neff & Vonk, 2009; Raes, 2010) have been reported in previous studies and were observed in the current research. Similarly, the current research confirmed prior findings that self-insight enhances psychological well-being (Lyke, 2009) and that rumination obstructs self-insight (Harrington & Loffredo, 2011). With regards to self-reflection, the current findings provide support for the latest claims that the act of self-reflection is independent of its outcomes and not directly related to markers of well-being (Lyke, 2009; Stein & Grant, 2014). As suggested by other authors, the outcomes of self-reflection, and whether self-insight is gained as a result, seem to be determined by the conditions under which self-reflection is exercised (Grant et al., 2002; Roberts & Stark, 2008; Stein & Grant, 2014). The current research further suggests that the informational identity style entails characteristics favorable for self-insight.

The most interesting findings of this research pertain to the differences between the characteristic patterns of the three identity processing styles. While users of an informational identity style engage in self-reflection and do not ruminate, the opposite is true for those using a diffuse-avoidant or normative identity processing style. Users of the informational identity style are also self-compassionate, which aids them in the attainment self-insight. Their psychological well-being is bolstered by their high levels of self-insight, as well as their capacity for self-compassion, not only because it facilitates self-insight but also because

it is beneficial in itself. Users of the diffuse-avoidant or normative identity styles are faced with two conditions detrimental to their psychological well-being: first, because they ruminate rather than self-reflect, they are unable to gain self-insight. Secondly, they are not self-compassionate, the lack of which is harmful for their psychological well-being. Without self-compassion they are left with no defence against the negative effects of rumination. The normative identity style users may typically be protected through their high identity commitment, which possibly failed them in this study due to the ongoing pandemic. One could wonder whether it is the lack of self-compassion of diffuse-avoidant and normative style users that may be the very reason they fall into rumination rather than productively self-reflecting. Self-compassion has previously been found to have positive effects on unproductive, repetitive thinking and to eliminate rumination (Neff, 2003b; Neff & Vonk, 2009; Raes, 2010), and Stefan and Cheie (2020) suggested that it may indeed be a lack of self-compassion that could make the difference between self-reflecting and ruminating.

Even though it was the informational identity style rather than self-reflection itself that predicted psychological well-being through self-insight for users of this style, it can be assumed that their high levels of self-reflection are nonetheless essential in this prediction. While reflecting on the self is not a guarantee for self-insight, self-insight without self-reflection simply does not seem likely. Self-reflection is one of the capacities diffuse-avoidant and normative individuals lack compared to users of the informational identity style. One may conclude that fostering self-insight through self-reflection, then, seems like a promising approach to increasing the psychological well-being of users of the diffuse-avoidant and normative identity styles. However, it has been shown that self-reflection, when done wrong, has the potential to be harmful. For instance, Stefan & Cheie (2020) found that a

harsh and critical stance toward oneself can turn self-reflection into rumination, thereby increasing the risk for social anxiety.

The current research suggests that it is more than their capacity for self-reflection that affords informational individual's high levels of psychological well-being. It is their characteristic ways of going about reflecting on the self that allow them to benefit from it in terms of self-insight and psychological well-being. Simply encouraging diffuse-avoidant or normative individuals to seek self-insight could consequently backfire. For one, because they might not be able to do it in an adaptive way and secondly, in the case of normative individuals, self-insight would potentially rival with the information they typically obtain from others, leading to inner conflict. In other words, increasing psychological well-being through self-insight might not be compatible with the normative identity style.

The current findings suggest that self-compassion is crucial to reap the benefits of self-reflection, gain self-insight, and be psychologically well. Hence, prior to considering activities aimed at enhancing self-reflection, it seems that considering self-compassion practices may be worthwhile. Self-compassion in itself has been previously shown to (Homan, 2016), and it has been confirmed in this research that it is beneficial for psychological well-being. In contrast to self-reflection, there do not appear to be any pitfalls to self-compassion, and users of all three identity styles can benefit from it in terms of psychological well-being. For this reason, self-compassion may be the optimal starting point in trying to increase the psychological well-being of users of the diffuse-avoidant and normative identity styles, regardless of self-reflection practices but certainly when such practices are used. In any case, self-compassion is likely to buffer the negative effects of

rumination for those styles and can also counter the neurotic tendencies of diffuse-avoidant individuals.

Limitations and Suggestions for Future Research

The standard limitations of exclusively using self-report measures apply to this research. Additionally, the diversity of the sample was limited. The sample consisted exclusively of university students between the ages of 18 and 25 years who enrolled in psychology classes at the time of the study. A desire to figure themselves out is a common motive for enrolling in psychology classes which may mean that other samples could potentially behave slightly different in the domains of self-reflection, self-knowledge, and identity. Further, participants were from a largely homogenous sample in terms of ethnicity and geographic location (i.e., Caucasian; north-western Canada). Thus, future studies using cross-cultural sampling are needed to verify generalizability of the findings reported in this thesis. On top of that, older age groups are not represented, and previous research has found that age is positively correlated with the information identity style (Beaumont, 2011). The consideration of age in future research on this topic might, therefore, reveal further valuable insights into how self-insight and consequently psychological well-being can be fostered.

As previously mentioned, this research took place in an unprecedented time, namely the height of the COVID-19 pandemic. The changes brought about by the pandemic disrupted normal life as we previously knew it and required everyone to come to terms with a new way of going about life and especially social interaction – things that have consequences for our understanding of ourselves and require flexibility. In pre-pandemic research, normative style users have been found to lack such flexibility (e.g., Beaumont, 2017). As this research was conducted using a single-measurement design, it does not allow for any

conclusions about the changes or impacts this may have had. Additional research after the pandemic is over will be needed to confirm results and especially, to validate the formed hypotheses regarding the normative identity style.

Although the statistical analyses yielded results that suggest linear predictive relationships among variables, causal relationships among the variables cannot be determined due to the correlational nature of the methodology. To substantiate the claims made in this thesis regarding the benefits of self-compassion for users of the diffuse-avoidant and normative identity styles, studies using experimental designs in testing interventions designed to increase self-compassion will be needed. It will be interesting to examine whether self-reflection can be adaptive and conducive in the attainment of self-insight and ultimately increase psychological well-being for those styles when self-compassion is exercised.

Future research that relies on narrative approaches to identity (e.g., life story method; McAdams, 2001) may yield more explanatory evidence about the self-perceived nature of self-reflection and self-insight.

Conclusions

The results of this thesis provide an important addition to the literature on the importance of knowing (self-insight) and caring (self-compassion) about oneself for psychological well-being. Rather than simply investigating this matter on a global level, this thesis sheds light on how self-reflection, rumination, self-insight, and self-compassion play together in relation to psychological well-being as a function of an individual's identity processing style. No previous research has addressed all these self-relevant dimensions at the same time and also considering identity processing style.

Throughout this thesis, the case has been made for the benefits of self-knowledge and self-insight. But, as this thesis shows, it is a worthwhile undertaking to differentiate this claim based on an individuals' identity processing style. Signature patterns leading to or detracting from psychological well-being emerged for the informational identity style on one hand and the diffuse-avoidant and the normative identity styles on the other hand. However, it cannot be conclusively assessed whether the pattern found for the users of the normative identity style is truly characteristic of them or if the COVID-19 pandemic has caused a confound. Importantly, this thesis stresses that a focus on self-insight alone is not sufficient to enhance psychological well-being and may not be adequate for all styles. It has been shown that self-compassion plays a crucial part in psychological well-being, both for itself and due to its beneficial role in gaining self-insight.

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Appendix A

Introductory Information and Informed Consent Letter

Survey Introduction

This study consists of an online survey, which you may now participate in. The survey consists of a number of Likert scale questions, and may be divided into a number of sections. You must complete all sections in one sitting, as you are not allowed to resume at another time from where you left off. While you are participating, your responses will be stored in a temporary holding area as you move through the sections, but they will not be permanently saved until you complete all sections and you are given a chance to review your responses.

Purpose and Procedure

This research is being conducted by Theresa Frank (MSc Student) under the supervision of Dr. Sherry Beaumont. The purpose of this research is to examine the relationship between a person's self-processing and psychological well-being. You are being asked to complete an online survey regarding your daily life, experiences, thoughts, and feelings. The questionnaires will take approximately 45 minutes to complete. If you are a student in a psychology course that is included in the Psychology Research Participation System you will be compensated for completion of these questionnaires with 1% extra bonus mark to be added to your final grades.

Confidentiality and Anonymity

Your responses to the questions are considered confidential. Only the researchers and Mrs. Howard, the system administrator, will have access to the completed data, which will be kept in a locked cabinet in Dr. Beaumont's secure research lab for seven years, after which they will be destroyed. Only the online system records that you have participated in this study, so that you will receive course credit; information regarding your specific answers will be kept separately from your identity, preserving anonymity. You are free to withdraw from this research project at any time, in which case your information will be removed from the system and destroyed. Survey responses collected for this research may be published in scholarly journals or presented at scholarly conferences. However, your anonymity will be protected in these research reports by presenting only summary information for the entire sample of participants. Identifying information of individual participants will not in any way be connected to these publications or presentations.

Possible Risks, Benefits and Concerns

There are no foreseeable risks associated with this research. If you wish to talk to someone regarding issues raised as a result of being part of this project, the following organizations in Prince George can be contacted for information about mental health resources: the Canadian Mental Health Association (250-564-3396); or, the Personal Supports Centre (250-563-2008). Also, you may contact someone through confidential counseling services available at the UNBC Wellness Centre (250-960-6369; http://www.unbc.ca/wellness_centre/). The benefit to you personally is that completing this survey offers an opportunity for self-reflection through which you may obtain valuable self-insight. Another benefit is knowing

that you are contributing to scientific knowledge about how people attain psychological well-being and what might obstruct it.

If you have any questions or concerns, or you wish to obtain a copy of the study results, please contact either Dr. Sherry Beaumont (250-960-6501 or sherry.beaumont@unbc.ca) or Theresa Frank (tfrank@unbc.ca). Any complaints regarding this study should be directed to the UNBC Research Ethics Board (960-6735 or reb@unbc.ca).

PLEASE READ

Informed Consent Form

Clicking “Yes, start survey” following this form indicates that I have read the letter about the research project on self-processing and psychological well-being conducted by Theresa Frank (MSc Student) and Dr. Sherry Beaumont, and I consent to participate in this study. Specifically, I confirm that:

- (1) I am being asked to complete questionnaires that will take approximately 45 minutes of my time;
- (2) I understand that all the information gathered for this project is to be used for research purposes only and will be considered confidential;
- (3) I will receive ONE research credit (1% bonus mark) for completion of these questionnaires.
- (4) There are no foreseeable risks associated with this research, however, my participation in this research study is voluntary and I am free to withdraw at any time without penalty;
- (5) The purposes, procedures, and benefits of this project have been explained to me;
- (6) I can request a summary of the study results in January 2022 from Dr. Sherry Beaumont (250-960-6501 or sherry.beaumont@unbc.ca);
- (7) I have read and understand this informed consent and the attached information letter;
- (8) I consent to participate in this study.

Researcher/Supervisor:

Dr. Sherry Beaumont

Professor, Department of Psychology

TLC 10-3534; Phone: 250-960-6501; email: sherry.beaumont@unbc.ca

Researcher:

Theresa Frank

Graduate Student, Department of Psychology

TLC 10-3540; email: tfrank@unbc.ca

THANK YOU for your participation.

NOTE: You will be automatically logged out after 20 minutes of inactivity, so please keep this in mind when completing lengthy sections. Due to the nature of the online survey, you can only answer the questions in the response format presented; however, you will be given space at the end of the survey to voice any comments you may have.

Would you like to participate in the survey?

Appendix B

Demographics Information

The following information is collected to allow us to accurately describe the sample of participants.

1. Age (numerical value in years please): _____

2. Gender:

_____ Male

_____ Female

_____ Non-binary

_____ Prefer to self-describe

3. Ethnicity:

_____ Aboriginal

_____ African-Canadian

_____ Asian-Canadian

_____ Indo-Canadian

_____ Caucasian

_____ Other

4. Your current employment status (check all that apply):

_____ Employed full-time

____ Employed part-time

____ Student

____ Unemployed

____ Retired

____ Other

5. Check your **highest** education level completed:

____ Elementary school

____ Secondary school

____ High School diploma

____ Trade or technical school

____ Some college

____ College diploma

____ Some university

____ University degree

____ Other

Appendix C

Identity Style Inventory (ISI5, Berzonsky et al., 2013)

Instructions: You will find a number of statements about beliefs, attitudes, and/or ways of dealing with issues. Read each carefully, then use it to describe yourself. Circle the number which indicates the extent to which you think the statement represents you. There are no right or wrong answers. For instance, if the statement is very much like you, circle 5, if it is not like you at all, circle 1. Use the 1 to 5 point scale to indicate the degree to which you think each statement is uncharacteristic (1) or characteristic (5) of yourself.

1	2	3	4	5
Not at all like me				Very much like me

- | | |
|---|-----------|
| 1. I know basically what I believe and don't believe. | 1 2 3 4 5 |
| 2. I automatically adopt and follow the values I was brought up with. | 1 2 3 4 5 |
| 3. I'm not sure where I'm heading in my life; I guess things will work themselves out | 1 2 3 4 5 |
| 4. Talking to others helps me explore my personal beliefs. | 1 2 3 4 5 |
| 5. I know what I want to do with my future. | 1 2 3 4 5 |
| 6. I strive to achieve the goals that my family and friends hold for me. | 1 2 3 4 5 |
| 7. It doesn't pay to worry about values in advance; I decide things as they happen | 1 2 3 4 5 |
| 8. When facing a life decision, I take into account different points of view before making a choice | 1 2 3 4 5 |
| 9. I am not really sure what I believe. | 1 2 3 4 5 |
| 10. I have always known what I believe and don't believe; I never really have doubts about my beliefs | 1 2 3 4 5 |
| 11. I am not really thinking about my future now, it is still a long way off. | 1 2 3 4 5 |

- | | |
|---|-----------|
| 12. I spend a lot of time reading or talking to others trying to develop a set of values that makes sense to me. | 1 2 3 4 5 |
| 13. I am not sure which values I really hold. | 1 2 3 4 5 |
| 14. I never question what I want to do with my life because I tend to follow what important people expect me to do. | 1 2 3 4 5 |
| 15. When I have to make an important life decision, I try to wait as long as possible in order to see what will happen. | 1 2 3 4 5 |
| 16. When facing a life decision, I try to analyze the situation in order to understand it. | 1 2 3 4 5 |
| 17. I am not sure what I want to do in the future. | 1 2 3 4 5 |
| 18. I think it is better to adopt a firm set of beliefs than to be open-minded. | 1 2 3 4 5 |
| 19. I try not to think about or deal with personal problems as long as I can. | 1 2 3 4 5 |
| 20. When making important life decisions, I like to spend time thinking about my options. | 1 2 3 4 5 |
| 21. I have clear and definite life goals. | 1 2 3 4 5 |
| 22. I think it's better to hold on to fixed values rather than to consider alternative value systems. | 1 2 3 4 5 |
| 23. I try to avoid personal situations that require me to think a lot and deal with them on my own. | 1 2 3 4 5 |
| 24. When making important life decisions, I like to have as much information as possible | 1 2 3 4 5 |
| 25. I am not sure what I want out of life. | 1 2 3 4 5 |
| 26. When I make a decision about my future, I automatically follow what close friends or relatives expect from me. | 1 2 3 4 5 |
| 27. My life plans tend to change whenever I talk to different people. | 1 2 3 4 5 |
| 28. I handle problems in my life by actively reflecting on them. | 1 2 3 4 5 |
| 29. I have a definite set of values that I use to make personal decisions. | 1 2 3 4 5 |
| 30. When others say something that challenges my personal values or beliefs, I automatically disregard what they have to say. | 1 2 3 4 5 |

- | | |
|--|-----------|
| 31. Who I am changes from situation to situation. | 1 2 3 4 5 |
| 32. I periodically think about and examine the logical consistency
between my life goals. | 1 2 3 4 5 |
| 33. I am emotionally involved and committed to specific values and
ideals. | 1 2 3 4 5 |
| 34. I prefer to deal with situations in which I can rely on social norms
and standards | 1 2 3 4 5 |
| 35. When personal problems arise, I try to delay acting as long as
possible. | 1 2 3 4 5 |
| 36. It is important for me to obtain and evaluate information from a
variety of sources before I make important life decisions. | 1 2 3 4 5 |

Appendix D

The Self-Reflection and Insight Scale (SRIS, Grant et al., 2002)

Please read the following questions and indicate the response that indicates the degree to which you agree or disagree with each of the statements, but work quite quickly. Do not spend too much time on any question.

There are no “wrong” or “right” answers – only your own personal perspective.

Be sure to answer every question.

1	2	3	4	5	6
Disagree Strongly	Disagree	Disagree Slightly	Agree Slightly	Agree	Agree Strongly

- _____ 1. I don't often think about my thoughts
- _____ 2. I am not really interested in analyzing my own behaviour
- _____ 3. I am usually aware of my thoughts
- _____ 4. I'm often confused about the way that I really feel about things
- _____ 5. It is important for me to evaluate the things that I do
- _____ 6. I usually have a very clear idea about why I've behaved in a certain way
- _____ 7. I am very interested in examining what I think about
- _____ 8. I rarely spend time in self-reflection
- _____ 9. I'm often aware that I'm having a feeling, but I often don't quite know what it is
- _____ 10. I frequently examine my feelings
- _____ 11. My behaviour often puzzles me
- _____ 12. It is important to me to try to understand what my feelings mean
- _____ 13. I don't really think about why I behave in the way that I do
- _____ 14. Thinking about my thoughts makes me more confused
- _____ 15. I have a definite need to understand what my feelings mean
- _____ 16. I frequently take time to reflect on my thoughts
- _____ 17. Often I find it difficult to make sense of the way I feel about things
- _____ 18. It is important to me to be able to understand how my thoughts arise

_____ 19. I often think about the way I feel about things

_____ 20. I usually know why I feel the way I do

Appendix E

New Rumination Scale (Treynor et al., 2003)

People think and do many different things when they feel depressed. Please read each of the items below and indicate whether you almost never, sometimes, often, or almost always think or do each one when you feel down, sad, or depressed. Please indicate what you *generally* do, not what you think you should do.

1	2	3	4
Almost Never	Sometimes	Often	Almost Always

1. think "What am I doing to deserve this?"
2. analyze recent events to try to understand why you are depressed
3. think "Why do I always react this way?"
4. go away by yourself and think about why you feel this way
5. write down what you are thinking about and analyze it
6. think about a recent situation, wishing it had gone better
7. think "Why do I have problems other people don't have?"
8. think "Why can't I handle things better?"
9. analyze your personality to try to understand why you are depressed
10. go someplace alone to think about your feelings

Appendix F

The Self-Compassion Scale (SCS, Neff, 2003b)

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

1	2	3	4	5
Almost Never				Almost Always

- _____ 1. I'm disapproving and judgmental about my own flaws and inadequacies.
- _____ 2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.
- _____ 3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.
- _____ 4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.
- _____ 5. I try to be loving towards myself when I'm feeling emotional pain.
- _____ 6. When I fail at something important to me I become consumed by feelings of inadequacy.
- _____ 7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.
- _____ 8. When times are really difficult, I tend to be tough on myself.
- _____ 9. When something upsets me I try to keep my emotions in balance.
- _____ 10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
- _____ 11. I'm intolerant and impatient towards those aspects of my personality I don't like.
- _____ 12. When I'm going through a very hard time, I give myself the caring and tenderness I need.
- _____ 13. When I'm feeling down, I tend to feel like most other people are probably happier than I am.

- _____ 14. When something painful happens I try to take a balanced view of the situation.
- _____ 15. I try to see my failings as part of the human condition.
- _____ 16. When I see aspects of myself that I don't like, I get down on myself.
- _____ 17. When I fail at something important to me I try to keep things in perspective.
- _____ 18. When I'm really struggling, I tend to feel like other people must be having an easier time of it.
- _____ 19. I'm kind to myself when I'm experiencing suffering.
- _____ 20. When something upsets me I get carried away with my feelings.
- _____ 21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.
- _____ 22. When I'm feeling down I try to approach my feelings with curiosity and openness.
- _____ 23. I'm tolerant of my own flaws and inadequacies.
- _____ 24. When something painful happens I tend to blow the incident out of proportion.
- _____ 25. When I fail at something that's important to me, I tend to feel alone in my failure.
- _____ 26. I try to be understanding and patient towards those aspects of my personality I don't like.

Appendix G

The Psychological Well-Being Scale (Ryff, 1989)

Please read each of the following statements carefully and indicate the degree to which you agree or disagree with each statement using the following scale:

1	2	3	4	5	6
Strongly Disagree					Strongly Agree

1. Sometimes I change the way I act or think to be more like those around me.
2. In general, I feel I am in charge of the situation in which I live.
3. I am not interested in activities that will expand my horizons.
4. Most people see me as loving and affectionate
5. I feel good when I think of what I've done in the past and what I hope to do in the future.
6. When I look at the story of my life, I am pleased with how things have turned out.
7. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.
8. The demands of everyday life often get me down.
9. In general, I feel that I continue to learn more about myself as time goes by.
10. Maintaining close relationships has been difficult and frustrating for me
11. I live life one day at a time and don't really think about the future.
12. In general, I feel confident and positive about myself.
13. My decisions are not usually influenced by what everyone else is doing.
14. I do not fit very well with the people and the community around me.
15. I am the kind of person who likes to give new things a try.
16. I often feel lonely because I have few close friends with whom to share my concerns.
17. I tend to focus on the present, because the future nearly always brings me problems.
18. I feel like many of the people I know have gotten more out of life than I have.
19. I tend to worry about what other people think of me.
20. I am quite good at managing the many responsibilities of my daily life.

21. I don't want to try new ways of doing things--my life is fine the way it is.
22. I enjoy personal and mutual conversations with family members or friends.
23. I have a sense of direction and purpose in life.
24. Given the opportunity, there are many things about myself that I would change.
25. Being happy with myself is more important to me than having others approve of me.
26. I often feel overwhelmed by my responsibilities.
27. I think it is important to have new experiences that challenge how you think about yourself and the world.
28. It is important to me to be a good listener when close friends talk to me about their problems.
29. My daily activities often seem trivial and unimportant to me.
30. I like most aspects of my personality.
31. I tend to be influenced by people with strong opinions.
32. If I were unhappy with my living situation, I would take effective steps to change it.
33. When I think about it, I haven't really improved much as a person over the years.
34. I don't have many people who want to listen when I need to talk.
35. I don't have a good sense of what it is I'm trying to accomplish in life.
36. I made some mistakes in the past, but I feel that all in all everything has worked out for the best.
37. People rarely talk me into doing things I don't want to do.
38. I generally do a good job of taking care of my personal finances and affairs.
39. In my view, people of every age are able to continue growing and developing.
40. I feel like I get a lot out of my friendships.
41. I used to set goals for myself, but that now seems like a waste of time.
42. In many ways, I feel disappointed about my achievements in life.
43. It is more important to me to "fit in" with others than to stand alone on my principles.
44. I find it stressful that I can't keep up with all of the things I have to do each day.
45. With time, I have gained a lot of insight about life that has made me a stronger, more capable person.
46. It seems to me that most other people have more friends than I do.
47. I enjoy making plans for the future and working to make them a reality.

48. For the most part, I am proud of who I am and the life I lead.
49. I have confidence in my opinions, even if they are contrary to the general consensus.
50. I am good at juggling my time so that I can fit everything in that needs to get done.
51. I have the sense that I have developed a lot as a person over time.
52. People would describe me as a giving person, willing to share my time with others.
53. I am an active person in carrying out the plans I set for myself.
54. I envy many people for the lives they lead.
55. It's difficult for me to voice my own opinions on controversial matters.
56. My daily life is busy, but I derive a sense of satisfaction from keeping up with everything.
57. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.
58. I have not experienced many warm and trusting relationships with others.
59. Some people wander aimlessly through life, but I am not one of them.
60. My attitude about myself is probably not as positive as most people feel about themselves.
61. I often change my mind about decisions if my friends or family disagree.
62. I get frustrated when trying to plan my daily activities because I never accomplish the things I set out to do.
63. For me, life has been a continuous process of learning, changing, and growth.
64. I often feel like I'm on the outside looking in when it comes to friendships.
65. I sometimes feel as if I've done all there is to do in life.
66. Many days I wake up feeling discouraged about how I have lived my life.
67. I am not the kind of person who gives in to social pressures to think or act in certain ways.
68. My efforts to find the kinds of activities and relationships that I need have been quite successful.
69. I enjoy seeing how my views have changed and matured over the years.
70. I know that I can trust my friends, and they know they can trust me.
71. My aims in life have been more a source of satisfaction than frustration to me.
72. The past had its ups and downs, but in general, I wouldn't want to change it.

- 73. I am concerned about how other people evaluate the choices I have made in my life.
- 74. I have difficulty arranging my life in a way that is satisfying to me.
- 75. I gave up trying to make big improvements or changes in my life a long time ago.
- 76. I find it difficult to really open up when I talk with others.
- 77. I find it satisfying to think about what I have accomplished in life.
- 78. When I compare myself to friends and acquaintances, it makes me feel good about who I am.
- 79. I judge myself by what I think is important, not by the values of what others think is important.
- 80. I have been able to build a home and a lifestyle for myself that is much to my liking.
- 81. There is truth to the saying you can't teach an old dog new tricks.
- 82. My friends and I sympathize with each other's problems.
- 83. In the final analysis, I'm not so sure that my life adds up to much.
- 84. Everyone has their weaknesses, but I seem to have more than my share.