

INTERPERSONAL FACTORS UNDERLYING SELF-CONCEPT CHANGE:
ROLE OF SOCIOTROPY AND AUTONOMY

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A DISSERTATION SUBMITTED TO
THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN PSYCHOLOGY
YORK UNIVERSITY
TORONTO, ONTARIO

NOVEMBER 2023

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Abstract

The beliefs, ideas, and theories we have about ourselves (i.e., the "self-concept") are powerful determinants of how we think, feel, and act. This dissertation was interested in one aspect of the self-concept that is concerned with the need for relationships and positive interchanges with others and the need for independence and personal achievement (Beck, 1983). Beck (1983) termed these concerns *sociotropy* and *autonomy*. It has been theorized the self-concept can shift with situational demands (e.g., Beck et al., 2021). This dissertation employed Beck's (1983) sociotropy-autonomy model of personality as a framework to investigate interpersonal factors underlying change in self-concept content and mood. Four empirical studies looked at: a) the extent to which sociotropy-autonomy predict spontaneous self-concept content and mood, b) the effect of contextual cues about interpersonal orientation on patterns of spontaneous self-descriptions and mood, and c) participants' subjective interpretations of situation descriptions and elements that may be important in situation appraisals among sociotropic and autonomous individuals. A key finding was that for those scoring high on sociotropy, an increased focus on independent aspects of the self-concept was associated with less negative mood and negative self-descriptions, but may not have reflected a shift to individualistic views of the self-concept as previous research suggests. Results are discussed in terms of clinical, theory, and research implications. One implication of the results is that constructing the self-concept can be done more intentionally.

Keywords: self-concept, personality, sociotropy-autonomy, mood, cognition, interpersonal processes, spontaneous assessment.

Acknowledgements

I would like to express my deepest appreciation to the Department of Psychology at York University for giving me this incredible opportunity to pursue a Ph.D. in my chosen field of study. There are a number of people who must be acknowledged for their contribution to this accomplishment. Thanks to Suzanne MacDonald, Susan Murtha, Rob Cribbie and Chantal Arpin-Cribbie for your generosity, enthusiasm, and support. Thanks to everyone in the Graduate Office. I thank my Undergraduate Thesis supervisor, Raymond Mar, for invaluable lessons about writing, rigor, and ethics. I thank him for his red pen. I would like to thank my Master's Thesis supervisor, Gordon Flett who took me on as a Graduate student for the education of a lifetime. It is difficult still to fully account for the impact the Flett Lab has, and will continue to have on my life. Thanks to Richard Lalonde and Joni Sasaki for making the world of culture accessible to me. Thank you to Mirka Ondrack and Hugh McCague for their creative solutions for statistical dilemmas. Thanks to former students for their invigorating contributions to academic life. With special thanks to Stephen Perkovic, Monica Vessio, and Stephanie McKenzie for their thoughtful assistance with data collection and coding on this project. I thank my mindfulness teacher, Paul Ritvo, for his instruction and inspiring me to keep moving forward, re-energized, in the face of various obstacles.

My heartfelt thanks to each one of my Committee Members, Mirella Stroink, Cary Wu, Michael Pettit, Thomas Teo, John Eastwood, and my supervisor, Doug McCann. I could not have asked to be surrounded by a more spectacular and fascinating collection of people and ideas. Working with you has been a privilege that I hold in the highest regard. I thank Thomas Teo for his Ph.D.-level courses that blew my mind and changed the way I think as a psychologist and researcher. I thank him for teaching me critical thinking skills and for his interest in my aim to explore different ways of doing psychology. Thanks to Michael Pettit for creating a space to explore stimulating and out-of-the-ordinary concepts and ideas. I thank John Eastwood, who like many others named here, has been with me from the start of this journey, encouraging my scholarship and service endeavours. Thanks for your deeply thoughtful comments on this project and for teaching me how to write better. I wish to express my profound gratitude to my doctoral advisor and mentor, Doug McCann. The exemplary training in research, teaching, and service that I received from Professor McCann, and the diverse network of exceptional scholars who surround him, I take with me wherever I go. Doug has had immense positive influence on countless students, faculty and staff at York University, this influence can be found all over, and it will no doubt reverberate for many years to come. This dissertation was inspired by his important contributions to theory and research on the self and depression, and the studies that were conducted in his lab during the time that I was a Graduate student.

Finally, I wish to thank my family and friends. Without you, none of this would have been possible. Thank you for babysitting, for good meals, for the fun, support and good talks. Dan: you told me to go for it! I'm so glad that I listened. Thank you for your good advice and especially for your humour. Eddie, you've been stapling stacks of questionnaires, running participants, and analyzing data since before you were born. Thanks for being my co-conspirator. Keep smiling. This dissertation is for you and Hugo.

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Chapter 1

Interpersonal Factors Underlying Self-Concept Change: Role of Sociotropy and Autonomy

"The way people define themselves is an indicator of the way they define their lives and their actions. Understanding a person's self-concept is therefore a particularly important way to understand much of what they do" (Gore & Cross, 2011, p. 135).

Every person has a set of beliefs, ideas or theories about *who they are*. Our concepts of ourselves provide coherence and a way to make meaning of our experiences, and they can be powerful determinants of our thinking, emotions, behaviour and life outcomes, including the experience of depression (e.g., Beck et al., 2021; Bergner & Holmes, 2000; Gore & Cross, 2011; James & Barton, 2004; Kawakami et al., 2012; Marsh & Martin, 2011; McIntyre et al., 2015; Richman et al., 2016; Roddy et al., 2020; Sa & Ferreira, 2012; Schlegel et al., 2009; Schwartz et al., 2011; Shiloh et al., 2018). Key aspects of the self-concept that are central in our lives are the need for relationships and positive interchanges with other people and the need for autonomy (Beck, 1983). According to Beck (1983), personality develops around these core needs, which he termed *sociotropy* and *autonomy*. Too much emphasis on either domain, however, can lead to disorder (Beck, 1983). Interestingly, he and others believed the content of our beliefs, ideas, and theories about who we are, including our orientation to other people, can change all the time, depending on our interactions with the environment (e.g., Ardel, 2000; Beck, 1983; Beck et al., 2021; Gore and Tichenor, 2018; Jones & Gerard, 1967; Rhodewalt, 1998; Snygg & Combs, 1949, 1950).

Psychology has long theorized that our beliefs and ideas about who we are, often referred to as the *self-concept*, is shaped by our ongoing interactions with the social environment (e.g.,

Goldstein, 1940; James, 1890; Lewin, 1936; Mead, 1934). Empirical psychological research demonstrates that as we interact with the environment, some aspects of our self-concept will be shaped and changed by our experiences, while others will remain relatively stable (e.g., Ardel, 2000; Caspi et al., 1989; Gore & Cross, 2011; Hertzog & Nesselrode, 1987; Oltmanns et al., 2020). Outside the clinical literature, which typically focuses on dysfunction, limited attention has been devoted to self-concept change. Given the demonstrated role of sociotropic-autonomous aspects of the self-concept in depression (see Sato & McCann, 2002; Weishaar & Beck, 2006 for reviews), it is important to understand factors underlying change.

This dissertation employs Beck's (1983) sociotropy and autonomy model of personality as a framework to investigate interpersonal factors underlying change in self-concept content and mood. According to this social cognitive model, there are individual differences in the dispositional tendency to define the self-concept in these interpersonal terms. Sociotropy is concerned with relationships, dependence, nurturance, intimacy, and positive interchanges with significant others. Autonomy is concerned with the need for independence, personal achievement and distinction, mastery over the environment, mobility and freedom from the influence of others. Other formulations of these concepts exist (Blatt, 1983; Blatt & Zuroff, 1992), but the current dissertation focuses on Beck's (1983) model of personality which identifies sociotropy and autonomy as aspects of the self-concept that interact with social-cultural contexts across the lifespan. The sociotropy-autonomy formulation has been especially influential in understanding the role of personality in depression. It suggests that some people are vulnerable to depression because they are overly invested in and concerned about sociotropy or autonomy domains (Beck, 1983; Weishaar & Beck, 2006). Although sociotropy and autonomy are investigated as personality traits, Beck ultimately viewed them like "modes"

versus traditional "traits." Early on, Beck (1983) theorized that sociotropy and autonomy modes can shift as a function of contextual cues at a given moment, in an ongoing "cycle" of influence between person and situation (Beck, 1983, p. 269). For example, "A competitive situation is likely to mobilize the autonomous attributes... whereas a disruption of a close relationship may accentuate dependency" (Beck, 1983, p. 272). This aspect of Beck's (1983) theory is significant because classic social psychological research has more generally demonstrated that the content of beliefs/ideas/theories about the self that a person brings into awareness even momentarily can shape the subsequent self-concept and behaviour (e.g., Jones et al., 1981). While individuals can switch between modes as a function of the fit between internal needs, desires, impulses and social and cultural expectations, a dominant mode typically emerges for each individual (Beck, 1983; Beck et al., 2021). In spite of Beck's intriguing proposal about the nature of change, to date very little empirical research has investigated the specific self-concept content and mood associated with shifts from one mode to another.

Sociotropy and autonomy have been studied extensively as trait dispositions typically measured in questionnaire research using the Sociotropy-Autonomy Scale (SAS) by Beck and colleagues (see Sato & McCann, 2002; Weishaar & Beck, 2006 for reviews). The operationalization and measurement of trait dispositions of sociotropy and autonomy is well-documented, but it offers a limited view of this aspect of the self-concept. Specifically, it ignores the phenomenal element of the self-concept. The phenomenal element can change in momentary awareness depending on situational cues (Jones & Gerard, 1967; Snygg & Combs, 1950) and should be captured using spontaneous methods of assessment (e.g., McGuire & Padawer-Singer, 1976; Gore & Cross, 2011); for example, the way a person spontaneously describes themselves at a particular moment.

There have been a number of productive proposals over the years for how to look at the spontaneous self-concept. This dissertation will focus on methods that emphasize spontaneous measurement tools and a timeframe for analysis that is restricted to what can be observed in a person's current moment awareness. For example, McGuire and Padawer-Singer (1976) outlined a method for studying spontaneous self-concept content that allows participants to choose and define the dimensions that are salient and significant to them in their own words using open-ended forms of assessment. This method is contrasted with "information-losing" *reactive* methods (McGuire & Padawer-Singer, 1976, p. 743) that still predominate this field, requiring that participants react to some dimension chosen by the researcher. Here, "subjects are reduced to saying how they would think of themselves with respect to the given dimension if they happened to think of it at all, without furnishing any information on the more important question of how salient the dimension is to them" (McGuire & Padawer-Singer, 1976, p. 743).

Spontaneous measurement tools allow themes of study to emerge more naturally (Gore & Cross, 2011). As a result, although reactive self-report measures may provide better reliability across studies, spontaneous self-report measures generally have higher construct validity (Brinthaupt & Erwin, 1992; Gore & Cross, 2011). An example of a well-known tool for the measurement of spontaneous self-concept content is the Twenty Statements Test (TST) developed by Kuhn and McPartland (1954), which asks respondents to answer 20 statements beginning with, "I am _____." Some investigations have profitably married spontaneous open-ended methods with traditional psychometric approaches, like questionnaires. For instance, the spontaneous method of assessing the self-concept was used to establish and demonstrate Higgins' (1987) influential self-discrepancy theory relating personality with the self-concept.

The spontaneous self-concept is measured and operationalized as what is salient in a person's awareness at a given time. For example, Snygg and Combs (1950) suggested restricting the timeframe for examination to what can be measured in participants' current perceptual field. "Objects and events in the phenomenal field derive their meaning from the field at that instant. Out of that context they will have different meanings, like food before and after a heavy dinner" (Snygg & Combs, 1950, p. 526). This is contrasted with dominant methodological approaches that attempt to predict immediate causes of behaviour from causal forces that occurred outside the behavior's present awareness (Snygg & Combs (1950, p. 523). Trait questionnaires that measure global aspects about how one *typically* behaves over a larger undefined timeframe (e.g., the Sociotropy-Autonomy Scale) is one example. Recognizing the significance of current moment awareness, Jones and Gerard (1967) put forth an innovative phenomenal theory of the self-concept that "evolves over time" to incorporate ongoing experience and behaviour and has "the capacity for long-term modification of content" (Rhodewalt, 1998, p. 376). According to this perspective, a person's moment-to-moment awareness of themselves "arises out of his interactions with the environment, of his own beliefs, values, attitudes, the links between them, and their implications for his behavior" (Rhodewalt, 1998, p. 182). People continuously call past behaviours and beliefs into awareness in order to understand themselves in each moment (e.g., I was sociable yesterday. I must be a sociable person) (e.g., Jones & Gerard, 1967; Rhodewalt, 1998). But since a person's full range of self-knowledge is too vast to be accessed in any given moment, situational and motivational cues bring certain aspects of the self to the forefront of self- awareness and not others (e.g., Jones & Gerard, 1967; Rhodewalt, 1998). Numerous studies have shown that under the right conditions this can foster moment-to-moment shifts on relevant aspects of the self-concept which can "carry over" to later self-concept views and behaviour (see

Rhodewalt, 1998 for a review). For example, participants who were instructed to think of themselves on a day when they "felt really good" about themselves and to present themselves in this way to an interviewer, subsequently reported more self-enhancing private self-views (e.g., Jones et al., 1981). Beck and colleagues' (2021) theory of modes, and in particular the sociotropy-autonomy model (Beck, 1983), extends this line of thinking by theorizing that the repeated activation of particular aspects of the self-concept is the psychological process through which the self-concept is formed, maintained, and changed.

In this dissertation, I was interested in one aspect of the spontaneous self-concept related to sociotropy-autonomy and the interpersonal factors that influence change. I was interested in looking at how individual differences in sociotropy-autonomy (i.e., SAS scores) and contextual cues about interpersonal orientation shape spontaneous self-concept content and mood. For example, if sociotropy-autonomy reflects an overemphasis on aspects of the self-concept that can lead to depression, then we might expect that shifting the focus of interpersonal orientation should have an effect on spontaneous thoughts and emotions related to the self-concept (i.e., Beck, 1983). This dissertation investigates novel applications of an individual differences variable (i.e., sociotropy-autonomy) that should reflect change in self-concept content and associated mood state.

Four empirical studies employed a multi-methods approach utilizing advances in theory and methods in social and personality psychology. Study 1 looked at the extent to which Sociotropy-Autonomy Scale (SAS) questionnaire scores can predict spontaneous self-concept content assessed using an open-ended measurement tool. It was expected the two concepts (dispositional sociotropy-autonomy and spontaneous self-concept content) would be related, but they are operationalized and measured differently in ways that may be important. Study 1

additionally investigated the relationship between SAS scores, spontaneous self-concept content, and negative mood assessed using a measure of state mood. I was interested in looking at what is salient and important for individuals scoring high on SAS sociotropy or autonomy in their own words, and the relationship with negative mood state.

Studies 2 and 3 extend existing research by experimentally manipulating contextual cues about interpersonal orientation to examine the effect on spontaneous self-concept content and mood state for individuals scoring high on SAS sociotropy or autonomy. I was interested in how the patterns of spontaneous self-concept content and negative mood shift in response to different contextual cues. The purpose of Study 3 was to provide a direct replication of Study 2.

Study 4 asked participants to evaluate a sample of peer-generated situation descriptions for the extent to which situations would affect their own self-esteem. This study used a novel situation sampling method to investigate the relationship between SAS scores and specific elements of situation descriptions that participants judged as affecting self-esteem. I was interested in how participants scoring high on SAS sociotropy or autonomy subjectively interpreted actual life events described by their peers, and how they related to elements of the situations described (e.g., situation source), which may be important in judgments about situations for self-esteem. I was also interested in further examining the relationship between SAS scores and negative mood state.

The sections following present a review of the relevant theory and research on sociotropy, autonomy, and the self-concept in social-personality psychology. Complementary models and methodological advances in the study of individual differences in interpersonal orientation in related areas of research (i.e., cultural psychology) are presented where they have

inspired methods used in the current dissertation. A more detailed overview and objectives of Studies 1 to 4 are presented following the review of the corresponding literature.

Sociotropy-Autonomy, Spontaneous Content and Mood

The idea that individuals tend to focus on and define themselves primarily according to personal or interpersonal domains has been central to various formulations of the self-concept in psychology (e.g., Angyal, 1951; Blatt & Zuroff, 1992; Markus & Kitayama, 1991; Matsumoto & Yoo, 2006; Oyserman et al., 2002). Beck's (1983) influential sociotropy-autonomy model based in personality and clinical psychology has focused on the role of the personality traits in the experience of depression (Sato & McCann, 1998). Research in this area generally provides support for the theory that an excessive focus on either sociotropic or autonomous concerns coupled with stressors in personality-relevant life domains (i.e., the diathesis-stress or cognitive vulnerability-stress model) will lead to depression (e.g., Coyne & Whiffen, 1995; Neitzel & Harris, 1990; Robins et al., 1995; Sato & McCann, 2002); for example, when a sociotropic individual experiences problems in a close relationship. According to Beck and colleagues (e.g., 1996; Beck et al., 2021; Beck & Haigh, 2014), however, personality is composed of a number of "modes" which have adaptive functions that allow the individual to fit in with their social environment. A dominant mode typically emerges for each individual depending on the particular situations encountered, especially situations encountered repeatedly, which bring particular aspects of the self-concept to the forefront of awareness (Beck et al., 2021). Research demonstrates sociotropy and autonomy vary, in part, as a function of personal life experiences beginning with early parent-child interactions, and later peer relationships (e.g., Brenning et al., 2013; Kopala-Sibley & Zuroff, 2014; Mendelson et al., 2002).

Sociotropy and autonomy are typically measured using structured trait questionnaires, usually Beck's Sociotropy-Autonomy Scale (the Personality Style Inventory by Robins et al., 1994, is another less commonly used questionnaire) or checklist methods. However, in some research more open-ended methodologies have also been explored, obtaining qualitatively rich accounts of the spontaneous self-concept content of sociotropic and autonomous individuals (Grondin et al., 2011; Kwon et al., 2001; Raghavan et al., 2002; Witheridge et al., 2010). For example, Witheridge et al., (2010) examined the autobiographical content of memories generated by sociotropic and autonomous individuals seeking treatment for depression and/or anxiety, and Raghavan et al., (2002) used semi-structured interviews with a community sample of sociotropic and autonomous individuals to generate participant narratives of stressful life experiences.

One problem with the reliance on trait dispositional measures of sociotropy-autonomy like the SAS is that it does not differentiate between what aspects might be descriptive of an individual and what aspects are important to that individual. There is some consensus in the literature that different aspects of the self-concept are likely to vary both in the extent to which they are descriptive and the degree to which they are important to an individual's self-concept (i.e., Markus, 1977). For example, the first item on the SAS is, "I would be uncomfortable dining out in a restaurant by myself." This statement may be self-descriptive, but at the same time, the person may be fine with feeling uncomfortable alone at a restaurant - it may not be important to them whether they can comfortably dine out alone or not. Since participants respond to SAS statements by indicating, "What percentage of the time each of the statements describes you (0-100% of the time)," it is not clear to what extent the SAS captures self-importance as well as self-descriptiveness. This nuance might be important. Moreover, even if participants rate something as high in self-importance doesn't necessarily mean it's really part of their self-concept

(Kihlstrom, 2021). A related problem with questionnaire methods is that the way investigators assess these traits may or may not closely correspond with how sociotropic and autonomous individuals actually view themselves and the world (Dasch et al., 2008; Frewen & Dozois, 2006a, 2006b; Robins & Block, 1988). For instance, previous research has focused on autonomous individuals' responses to achievement failures (e.g., job loss) and seldom considers events that impact independence-control aspects of autonomy without explicit failure (e.g., low job mobility) (Frewen & Dozois, 2006a, p. 3), which researchers have suggested may be a crucial feature of the autonomous style (Little & Garber, 2000; Mazure et al., 2001; Nelson et al., 2001; Sato & McCann, 1997).

In a neighbouring area of research, there is another influential individual differences formulation that similarly focuses on the extent to which individuals define themselves primarily according to personal and interpersonal phenomena derived from cross-cultural analyses (Sato & McCann, 1998). Cultural psychology looks at concepts related to sociotropy and autonomy using novel spontaneous methods that provide strong examples with applications to the current research. For example, based on earlier work suggesting that people in different cultures construe or interpret themselves differently, Markus & Kitayama (1991) advanced the concepts of the *independent* and *interdependent self* to distinguish between two forms of construal concerned with a belief about the degree to which one is separate from or connected to others. Like Beck's sociotropic-autonomous personality, the independent and interdependent selves reflect self and other orientations (Sato & McCann, 1998). The independent self is typically found in individualistic (Western) cultures like Canada and the U.S., and emphasizes autonomy, uniqueness, and personal control (Markus & Kitayama, 1991). The interdependent self is typically found in collectivistic (non-Western) cultures like China, India, and Japan, and

emphasizes the fundamental relatedness and embeddedness of individuals within a larger social network (Markus & Kitayama, 1991). Cross-cultural investigations have focused on documenting self-concept content in participants' own words, developing innovative spontaneous methods of assessment. These methods have for instance been used to demonstrate that distinct features of interpersonal orientation prioritized in a given culture are reflected in the spontaneous content of cultural members' self-concepts (e.g., Chang & Lee, 2012; Cousins, 1989; Kanagawa et al., 2001; Ma & Schoeneman, 1997; Trafimow et al., 1991; Triandis, 1989). In one classic study, Cousins (1989) showed that when asked to respond to open-ended statements beginning with, "I am," individuals in collectivistic cultures tended to describe themselves using more content referring to group or social roles (e.g., "I am a son"). In comparison, those in individualistic cultures tended to describe themselves using more content that referred to the private self (e.g., "I am stubborn").

Descriptively, both Beck's (1983) concepts of sociotropy and autonomy and Markus and Kitayama's (1991) independent and interdependent selves appear to focus on similar issues (Sato & McCann, 1998). To systematically examine the degree to which the two sets of concepts may be integrated, Sato and McCann (1998) investigated the conceptual and measurement overlaps between two questionnaire measures of sociotropy and autonomy: the Sociotropy-Autonomy scale (Clark & Beck, 1991) and the Personal Style Inventory (Robins, 1994) and a questionnaire measure of individual differences in independent and interdependent self- construal, the Self-Construal Scale (Singelis, 1994). Their exploratory factor analysis revealed four factors; items from the Sociotropy-Autonomy Scale and the Personal Style Inventory and items from the Self-Construal Scale largely loaded onto two of these factors. First, a factor the authors labeled, "interpersonal sensitivity" contained items from the three scales related to

"concerns about what others think of the self and fear of disappointing others." The second factor, "independence/achievement" contained items from the three scales related to "concerns about being independent, achieving personal goals and being successful as an individual." Another factor labeled, "autonomy/insensitivity" almost entirely contained items from the Sociotropy-Autonomy Scale and Personal Style Inventory related to "avoiding contact with others for the sake of preserving one's sense of autonomy or insensitivity to other people's feelings," and appeared to be fairly distinct from the Self-Construal Scale items. The fourth factor, "attachment" consisted of many items from the Sociotropy-Autonomy Scale and some items from the Personal Style Inventory but none of the items from the Self-Construal Scale. Items loading onto the "attachment" factor related to "uncomfortableness or the absence of joy when being by oneself or the need to be loved or attached to others" (Sato & McCann, 1998, p. 852). In addition, correlations among the subscales we would expect to be related (e.g., sociotropy from the Sociotropy-Autonomy Scale and interdependence from the Self-Construal Scale) suggested the two sets of measures share similarities (i.e., correlations range from .19 to .47) but do not reflect the same construct (Sato & McCann, 1998). For instance, whereas sociotropy (Sociotropy-Autonomy Scale) was significantly correlated with the solitude dimension of autonomy (Sociotropy-Autonomy Scale), the interdependence subscale of the Self-Construal Scale exhibited a low non-significant correlation with solitude. As well, the independence measure from the Self-Construal Scale was positively correlated with only some of the autonomy measures from the Sociotropy-Autonomy Scale, and the results of the factor analysis suggest the two sets of concepts may reflect two different modes of functioning (Sato & McCann, 1998). Based on the factor analysis reported in Sato and McCann (1998), the Sociotropy-Autonomy Scale, Personal Style Inventory, and the Self-Construal Scale share a

conceptual emphasis on relatedness/connectedness and independence/achievement, but sociotropy and solitude may uniquely tap into issues of attachment/dependency and defensive separation from other people. These findings likely reflect the contexts in which sociotropy-autonomy and the independent-interdependent self were developed (Sato & McCann, 1998).

Sociotropy and autonomy were developed in a clinical context as a way to identify an individual's vulnerability to depression in a Western context (Weishaar & Beck, 2006). This makes sense in a Western cultural context, where independence, uniqueness, and personal control are valued, and placing too much emphasis on other people (whether positively or negatively) may manifest a defensive form of attachment or dependency. However, it is still not clear whether the concepts of sociotropy and autonomy generalize to non-Western cultures where the interdependent self is highly elaborated on (Sato and McCann, 1998). As Sato and McCann (1998) point out, "Although the interdependent self-construal seems to overlap with the concept from Beck (1983) of sociotropy, it may be unreasonable to assume that all individuals with interdependent self-construals in non-Western cultures (which is a majority of them) are vulnerable to depression" (p. 857). Initial studies suggest sociotropy-autonomy may be found in a collectivistic cultural context (Hong & Lee, 2001; Hong et al., 2003), but these studies do not measure depression so it is not clear what specific constructs these studies tapped into.

Given that individual differences in independent and interdependent self-construal have been shown to vary not only between cultures but also within cultures (e.g., Josephs et al., 1992; Hong & Mallory, 2004; Oyserman & Lee, 2008; Singelis, 1994), we may reasonably expect sociotropic individuals to view themselves as fundamentally socially embedded (i.e., interdependent self-construal), and autonomous individuals to view themselves as unique and separate from others (i.e., independent self-construal). On the other hand, since both sociotropy

and autonomy were developed in an individualistic context, it may also be reasonable to expect there are some sociotropic individuals who construe themselves in more independent terms than others. It may also be possible to find some autonomous individuals who construe themselves in more interdependent terms than others. This would to some extent seem consistent with previous research that has reported a "mixed type" of individual who endorses both sociotropic and autonomous concerns (e.g., Solomon & Haaga, 1993), and to some extent, all people hold both kinds of views, though one emerges as the more dominant mode (e.g., Beck, 1983; Blatt & Zuroff, 1992; Gilbert, 1987).

It is important to highlight here that existing theory and research indicates sociotropy and autonomy represent a type of cognitive vulnerability to depression when there is an *excessive* focus on either personal or interpersonal phenomena. An example of this distinction might be, when the need for relatedness and connection with others turns into dependency or defensive separation from others. Accordingly, the current dissertation will argue that it may be unlikely to find a highly sociotropic individual with the tendency to construe the self-concept in highly independent terms or a highly autonomous individual with the tendency to construe the self-concept in highly interdependent terms, at least not without the prospect of self-concept change. The concepts of independence and interdependence were not designed to look at depression. According to Markus and Kitayama (1991), cultural differences in individuals' tendencies to view the self as independent or interdependent reflects the relative goals of achieving independence and distinction vs. maintaining harmonious relationships which are differentially emphasized in cultural practices, societal norms, and social institutions. Cross-cultural analyses consistently support this view (e.g., Gardner et al., 1999). Research methods in cultural psychology reflect an interest in the extent to which cultural context can predict how individuals freely define the self-concept. Considering the extent of the conceptual overlap

between Beck's (1983) sociotropy-autonomy and Markus and Kitayama's (1991) independent-interdependent self-construal, which suggests the two sets of concepts are related but also distinct in important ways (Sato & McCann, 1998), the open-ended methods used in cultural psychology may be profitably adapted to the study of sociotropy and autonomy.

The sociotropy-autonomy theory additionally originally posited that the valence of self-concept content (e.g., negative, positive) may be an important component, especially for sociotropy. However, this component has not been systematically defined and investigated. While negative self-evaluations are at the center of theory and research on sociotropy and autonomy, Beck (1983) also theorized that positive evaluations of one's personal world, especially the prospect of receiving social support for sociotropics, may play an important role. Research has only recently begun to examine both positive and negative cognitive content (Dasch et al., 2008).

There is a large body of research supporting the link between sociotropy, and to a lesser extent, autonomy, and depression (for reviews see Sato & McCann, 2002; Weishaar & Beck, 2006). However, some sociotropy-autonomy researchers have pointed out there may be important differences between "symptom-linked cognitive processes" due to transient mood, and "vulnerability-linked cognitive processes", which are viewed as relatively stable (e.g., Baker et al., 1997, p. 292). Yet there is little research assessing associations with mood states. Negative mood may activate the dysfunctional attitudes that can lead to depression in vulnerable individuals (Miranda et al., 1998). Negative mood even in the absence of a depression episode is increasingly believed to contribute to poor mental and physical health, such as damaging immune responses (e.g., Graham-Engeland et al., 2018).

Although the SAS is a well-established tool for measuring trait sociotropy and autonomy, and its relationship with depression as part of the sociotropic-autonomous self-concept constellation is well-known, the emphasis on trait approaches to sociotropy-autonomy and depression has left important gaps in our understanding of this social trait. Specifically, there has been a relative neglect of the spontaneous element of the self-concept and there is little known empirically about change in self-concept content and mood state.

This dissertation adapts spontaneous methods from a related area of research (i.e., cultural psychology) to measure an aspect of the self-concept that should reflect change in self-concept content and negative mood (i.e., sociotropy-autonomy). This is important because as noted earlier, even momentary shifts in spontaneous content can lead to longer-term self-concept and behavioural change (Rhodewalt, 1998). In addition, the current dissertation proposes we can also reasonably expect there may be important longer-term implications for the experience of negative mood.

Overview and Objectives of Studies 1 to 4

Study 1 of the current dissertation: Spontaneous content and mood

Study 1 looked at the extent to which SAS scores can predict spontaneous self-concept content using an open-ended measurement tool. It additionally examined the relationships among the SAS, spontaneous self-concept content, and negative mood assessed using a measure of state mood. The purpose of Study 1 was to establish a baseline for spontaneous content related to sociotropy and autonomy and the associated mood states. Study 1 adapted a method used by Kitayama et al. (1992) where participants were asked to freely describe as many situations as they could in which their self-esteem had either increased or decreased. In their study, they were interested in the frequency with which American and Japanese participants

generated self-esteem increasing vs. self-esteem decreasing situations. This method allowed the authors to examine cross-cultural differences in the way that participants define situations perceived as impacting the self-esteem component of self-concept using their own words about what is relevant and important.

In Study 1 of the current dissertation, I was interested in the content of situations that individuals scoring high on sociotropy and autonomy would generate in response to these instructions. Study 1 participants were asked to generate situations in which their "self-esteem or self-worth" had either increased/decreased in a task called the life experiences exercise. In addition to looking at the frequency with which self-esteem increasing vs. decreasing situations were generated, Study 1 also examined the thematic content of situation descriptions. The situation descriptions participants generated for the life experiences exercise were content analyzed for themes relating to relationships and themes relating to independence and achievement. Participants were asked to complete the life experiences exercise, the Sociotropy-Autonomy Scale, a measure of depression, and a measure of state mood. Whereas the Sociotropy-Autonomy Scale measures trait dispositions (i.e., more global aspects related to how one "typically" behaves), the life experiences exercise is a spontaneous form of assessment that measures what is salient for the individual at a given time. Whereas the Sociotropy- Autonomy Scale is a closed-ended/forced-response scale that presents participants with researcher-generated stimulus materials to react to, the life experiences exercise is an open-ended assessment tool that gives participants the opportunity to describe what is relevant and important for them in their own words. Regression techniques were used to examine the extent to which SAS scores predicted spontaneous content themes. Correlational analyses were used to

examine relationships between the SAS, spontaneous content themes, state mood, and depression symptoms.

Sociotropy and Autonomy as "Modes" of Functioning

According to Beck (1983, 2021), an individual's focus on sociotropic or autonomous aspects of the self-concept can shift as a function of interpersonal context, "depending on context .. an individual may shift from one mode to another" (Beck, 1983, p. 272). Different modes may become activated depending on the fit between internal desires and needs (e.g., sociotropy-autonomy) and the current demands of the situation such as social and cultural expectations (Beck, 1983; Beck et al., 2021). A few studies have begun to investigate the question of change in sociotropy and autonomy (Bagby et al., 2001; Bieling et al., 2004; Moore & Blackburn, 1996; Scott et al., 1996). However, most of these studies examine clinical change in response to pharmacotherapy. There is indeed a notable clinical literature on the effect of cognitive-based therapies on self-concept change. "Eliciting, evaluating, and changing core beliefs are established features of cognitive behaviour therapy (CBT)," (James & Barton, 2004, p. 431). However, few studies offer a direct empirical examination of how specific interpersonal factors might influence self-concept content and mood.

Research on the concepts of independence and interdependence in cultural psychology provides useful methods for examining the effect of contextual cues that focus on personal vs. interpersonal phenomena on spontaneous self-concept content. To the extent that all individuals are concerned with autonomy and relatedness, individuals should be able to switch flexibly between the two orientations for thinking about the self (e.g., Gardner et al., 1999). Studies in the cultural area have experimentally manipulated interpersonal orientation by making salient cues that signal information about interpersonal context, and have observed corresponding changes in

participants' spontaneous self-concept content (for a review see Cross et al., 2011). For example, Gardner et al. (1999) experimentally manipulated independent and interdependent self-construal and then instructed participants to complete the Twenty Statements Test (*TST*; Kuhn & McPartland, 1954), a spontaneous free-response assessment of self-concept content that asks participants to respond to statements beginning with, "I am." As expected, participants who were primed with independent self-construal generated more independent self-descriptions on the TST compared to participants primed with interdependent self-construal, who generated more interdependent (e.g., group and social role) self-descriptions (Gardner et al., 1999). The use of cultural priming techniques to examine shifts in self-concept content is well-established in both cross-cultural and within-culture analyses (e.g., Cross et al., 2011). Research using these methods, however, does not account for how individual differences in personality-vulnerability to depression (i.e., sociotropy-autonomy) may interact with contextual cues about interpersonal orientation.

The sociotropy-autonomy model provides a unique theoretical framework for investigating self-concept change. Study 2 of this dissertation looks at one aspect of Beck's dynamic model which suggests that individual differences in sociotropy-autonomy interact with contextual cues about interpersonal orientation to shape the self-concept. Existing methods and approaches in the study of sociotropy-autonomy do not necessarily lend themselves to the study of change, however. The methodological advances made in cultural psychology (i.e., priming techniques) can be applied to the empirical investigation of sociotropic and autonomous aspects of the self-concept and change in related spontaneous content and mood.

Study 2 of the current dissertation: Shifting self-concept content and mood with context cues

Study 2 extends existing research by experimentally manipulating contextual cues about interpersonal orientation to examine the effect on spontaneous self-concept content and mood state. The purpose of this study was to examine how SAS scores interact with contextual cues to produce different patterns of self-concept content and mood. For Study 2 purposes, independent and interdependent self-construal primes from cultural psychology act as a type of "contextual cue" that emphasizes a particular interpersonal orientation over another (i.e., a focus on personal vs. interpersonal phenomena). This method was adapted for the present objectives. Study 2 experimentally manipulated contextual cues about independent and interdependent self-construal using one of the most common and efficient priming techniques called the similar/different task (Trafimow et al., 1991) from cultural psychology (Cross et al., 2011). In this task, participants were asked to spend two minutes thinking about either, "what you have in common with" or "how you are different from" friends and family. Self-concept content was measured using a spontaneous free-response assessment (Twenty Statements Test; Kuhn & McPartland, 1954) and participants' responses were content analyzed for personal and interpersonal themes. Participants also completed a measure of state mood and a measure of implicit self-esteem. Dependent measures (self-concept content, mood, implicit self-esteem) were administered at two time points following the experimental condition. Regression techniques were used to examine the effect of the interaction between SAS scores and interpersonal orientation condition on spontaneous self-concept content, mood state, and implicit self-esteem.

Study 3 of the current dissertation: Replicating Study 2

The purpose of Study 3 was to conduct a direct replication of Study 2, with one measurement change, which will be detailed in the Methods section of Chapter 4, in order to see

if the same pattern of results for Twenty Statements Test content and mood could be obtained using this method.

Toward a Co-construction Model of Sociotropy and Autonomy

The priming technique referred to above describes specific laboratory procedures, but we are likely similarly and regularly "primed" by other situations that bring into awareness some aspects of our self-concept and not others (Jones & Gerard, 1967; Rhodewalt, 1998). There are many situational cues in the psychological situations we encounter. How do sociotropic and autonomous individuals filter out what is meaningful for the self-concept? Research on sociotropy-autonomy has produced many studies investigating the extent to which sociotropy and autonomy predict depression when stressors are encountered in personality-relevant life domains like relationships or personal achievement (i.e., the "diathesis stress model; see Bieling et al., 1998; Sato & McCann, 2002; Weishaar & Beck, 2006 for reviews). However, there is relatively little known empirically about how sociotropic and autonomous individuals subjectively interpret these situations and assign meaning to them in relation to oneself (Allen et al., 1996; Kwon & Whisman, 1998). For instance, receiving a bad grade or getting fired from a job involves a social rejection component as well as achievement concerns that sociotropic individuals may attend to (e.g., disappointing parents or loss of association with coworkers), whereas autonomous individuals may focus on the achievement-related concerns (Allen et al., 1996; Gotlib & Hammen, 1992). Researchers in this area typically infer meaning from the context of events while not studying participants' appraisals directly (Allen et al., 1996; Kwon & Whisman, 1998). Existing studies focus on the role of situation content/themes deemed important by researchers but there may be other elements of the situation that are significant for sociotropic and autonomous individuals.

Looking to developmental perspectives on sociotropy and autonomy and related constructs (i.e., dependency and self-criticism), another element that these individuals may focus on in evaluating the significance of a situation is the source of situational cues. Studies in this area suggest individual differences in sociotropy-autonomy may develop in early parent-child relationship and are subsequently maintained in the ongoing ways that situations that are meaningful for the self-concept are defined (e.g., Bornstein et al., 1996; Chodorow, 1978; Gilbert, 1987; Gilligan, 1982; Kaul et al., 1982; Kopala-Sibley & Zuroff, 2014; Lerner, 1983; Rosenfarb et al., 1994). The role of socialization may be especially evident in the gender differences found in sociotropy-autonomy (e.g., Gilbert, 1987), but studies are also finding a more general association between parents' and children's levels of sociotropy/dependency or autonomy/self-criticism (see Kopala-Sibley & Zuroff, 2014 for a review). For example, studies have found dependent individuals are more likely to recall their parents as controlling (McCranie & Bass, 1984), overprotective (Campos et al., 2010), and making love contingent on the child expressing love for them (Soenens et al., 2010). In one experiment, Thompson and Zuroff (1999) asked mothers to rate their son's competence on a task which they were told their son had either chosen to work with their mother or with a research confederate. Mothers who scored high on dependency were more likely to rate their son as less competent when they were told their son chose to work with the research confederate (Thompson and Zuroff, 1999). This and other studies suggest that "dependent or self-critical mothers may foster dependency in their children by thwarting their autonomy" (Kopala-Sibley & Zuroff, 2014, p. 141). In other studies, Ahmad and Soenens (2010) found a correlation between mothers' and adolescents' (both boys and girls) levels of dependency, and Besser and Priel (2005) reported correlations between mothers' and daughters' dependency across three generations of women. Very similar results

have been found for the relationship between parents' and children's levels of autonomy and self-criticism (see Kopala-Sibley & Zuroff, 2014 for a review). Individuals scoring high on sociotropy/dependency or autonomy/self-criticism may thus be more likely to have had parents who were themselves relatively sociotropic/dependent or autonomous/self-critical. This is consistent with a view of personality processes as essentially adaptive, adjusting in attempt to fit in with, and appropriately respond to situational demands and social-cultural expectations (e.g., Ardel, 2000; Beck et al., 2021; Jones & Gerard, 1967; Rogers, 1963; Snygg & Combs, 1950). Is it possible that we develop special attention to how situations are defined by others who we perceive as sharing our own sociotropic and autonomous views? Taken together, the literature in this area appears to suggest that sociotropic-autonomous definitions of the self-concept may be derived from repeated exposure to particular people and social contexts. In other words, sociotropic and autonomous individual's interpretations of the psychological situations they encounter may be co-constructed with others in a shared context.

In the related area of cultural psychology, this idea is central to self-concept theories and innovative methods for investigating this idea have been developed. For instance, Kitayama et al., (1997) proposed that "the composition of situational definitions" (p. 1260) or the particular ways in which we collectively describe self-relevant life events plays a key role in self-concept construction. In the cross-cultural study highlighted earlier, Kitayama et al. (1992) showed that the relative tendency toward self-enhancement in American culture and self-deprecation in Japanese culture was reflected in the way that individual members of these cultures defined life events that affected self-esteem. Kitayama et al. (1997) extrapolate from these findings to the collective constructionist theory that we actively take up other people's situational definitions (expressed in various forms of storytelling, including casual conversation) to construct our own

self-concept. We in turn, reproduce these definitions in the way we describe our own life events to ourselves and others, which will consequently be "used" by other cultural members to construct their own self-concepts, and so on (Kitayama et al., 1997). Researchers have begun to study aspects of this broader theory, such as the idea that, if we compose our descriptions of life events in ways that fit in with our cultural contexts, then the composition of our situational definitions should be perceived as more relevant by members of our own versus other cultures. Kitayama et al., (1997, Study 1) use a novel situation sampling method to test this prediction. In this study, they randomly sampled descriptions of life events generated by American and Japanese participants in an earlier study, and exposed another group of Japanese and American participants to the situation descriptions and asked them to indicate whether each situation would impact their own self-esteem, if it happened to them. It was predicted that the cultural group the participant belonged to (American or Japanese) would in part predict the source of the situations (written by another American or Japanese person) that participants judged as self-impacting (Kitayama et al., 1997, Study 1). Interestingly, the authors found that, without (explicit) knowledge of the source of situation descriptions, American participants judged situations generated by other Americans as more relevant to one's own self-esteem than situations that had been generated by Japanese participants, and Japanese participants judged situations generated by other Japanese participants as more relevant to self-esteem than situations that had been generated by American participants. American and Japanese participants in this study appear to have "picked up" on culturally-specific cues embedded in the life event descriptions generated by other American and Japanese participants. There are other aspects of the collective constructionist theory (Kitayama et al., 1997) that still need to be investigated, and currently one needs to make several reasonable leaps to get to the broader theory. For example, the Kitayama

et al., (1997) study was a laboratory study and we don't know how these situations would actually be relevant for participants or how they would "use" them to construct their own self-esteem. The Kitayama et al., (1997) study represents an important advancement in methods for investigating collectively defined theories of the self-concept.

In research on sociotropy-autonomy, the "diathesis-stress" model (which suggests sociotropic and autonomous individuals become depressed when encountering stress in personality-relevant life domains) is the aspect of Beck's (1983) person-by-environment interactional model that has received the most attention. However, research applying new methods like the one used by Kitayama et al. (1997) would be a first step toward the creation of a *collectively defined* or *co-constructed* model of personality-vulnerability to depression (i.e., sociotropy-autonomy). To date, research on sociotropy-autonomy has paid relatively little attention to how sociotropic and autonomous individuals subjectively interpret situations and the situation elements that may be important for these individuals, beyond the content/themes of the situations (e.g., relationships and personal achievement). For example, there is some indication in the literature that situation elements like source and valence may also be important.

Study 4 of the current dissertation: Subjective Interpretations and Situation Elements

Study 4 investigated the relationship between SAS scores and participants' classifications of the content of situation descriptions, using peer-generated descriptions of past life events. Inspired by methods in cultural psychology, Study 4 also includes initial investigations of the relationship between SAS scores and situation source (i.e., the SAS score of the person who wrote the situation description), as well as the valence of the situation (positive/negative). Study 4 presents an initial attempt to examine how sociotropic and autonomous individuals subjectively interpret situation content/themes perceived as affecting self-esteem and to identify additional

elements of situation descriptions that may be important in situation appraisals. An additional purpose of Study 4 was to further examine the relationship between SAS scores and negative mood. To do this, Study 4 adapted and expanded on the situation sampling method used by Kitayama et al. (1997, Study 1) described above. The Kitayama et al. (1997, Study 1) situation-sampling method allowed the authors to look directly at the relationship between participants' cultural group and the cultural group of the source of situation descriptions in a way that should reflect important nuances in definitions of situations significant for self-esteem in their own 'language.'

In Study 4 of the current dissertation, I borrowed the Kitayama et al. (1997) Study 1 method for looking at this aspect of the broader collective constructionist theory in the context of individual differences in sociotropy-autonomy. I was interested in looking at the relationship between participants' SAS scores and the frequency with which situations generated by a sociotropic or autonomous source were evaluated as affecting their personal self-esteem. In addition, while Kitayama et al. (1997) were not interested in participants' subjective interpretations of situations, in Study 4 of this dissertation participants' subjective classifications of situation content themes were directly assessed using a task called the situation evaluation exercise. In this task, Study 4 participants were presented with a sample of situation descriptions generated by sociotropic and autonomous participants in Study 1 of the current dissertation. Participants were asked to read each of the situations and imagine that the situation was happening to them, and then to provide judgements about each situation. First, participants indicated whether or not the situation would affect their own self-esteem. Then, participants were directly asked to indicate what life domain they believed was primarily involved in each situation (relationships or independence-achievement). Participants were asked to complete the

situation evaluation exercise, the Sociotropy-Autonomy Scale, and a measure of state mood. Participants' evaluations of self-impacting situations were examined in terms of content (participants' subjective interpretations and researcher-generated classifications), source (written by a sociotropic or autonomous person), and valence of the content (self-esteem increasing or decreasing). Whereas previous studies typically infer the meaning of situations, Study 4 of the current dissertation is one of the few studies to directly assess participants' subjective interpretation of different kinds of situations. In addition, whereas sociotropy-autonomy research typically uses researcher-generated stimulus materials, by using peer-generated situation descriptions, the situation evaluation exercise not only provides participants with materials that should reflect important nuances in the ways that sociotropic and autonomous individuals define self-impacting situations, but also permits the unique opportunity to investigate the relationship between SAS scores and situation source. Regression techniques were used to examine the relationship between SAS scores and the frequency with which different kinds of situations were judged to be relevant for self-esteem. Correlational analyses examined the relationship between SAS scores and negative mood scores.

Chapter 2

Study 1

Sociotropy-Autonomy, Spontaneous Content and Mood

The Sociotropy Autonomy Scale (SAS) is a well-established measure of trait dispositions but it does not tell us about the spontaneous element of this aspect of the self-concept. While it was expected that the two concepts (dispositional sociotropy-autonomy and spontaneous self-concept content) would be related, they are operationalized and measured differently in ways that are important. In Study 1, I was interested in participants' spontaneous content related to sociotropy-autonomy themes, associated mood states, and the extent to which SAS scores can predict spontaneous content and mood.

In Study 1, trait sociotropy-autonomy was assessed using Beck's revised SAS questionnaire, and spontaneous self-concept content was assessed using the life experiences exercise, which asked participants to write about as many situations as they could in which they felt that their self-esteem had increased or decreased. The life experiences exercise did not provide any directive prompts except to provide examples of possible contexts (e.g., at school, at home). This exercise provided a unique opportunity to measure how participants spontaneously describe themselves, giving them the opportunity to describe what is salient and important in their own words. Participants also completed questionnaire measures of depression and state negative mood.

Life Event Content

Recent studies using similar methodologies provide initial evidence that dispositional sociotropy-autonomy is related to the types of spontaneous content participants generate. Kwon et al. (2001) investigated the extent to which sociotropy and autonomy (assessed using the

Personal Style Inventory, Robins et al., 1994) predicted the themes participants generated using the Thematic Apperception Test (TAT; Murray, 1943). This study found an association between sociotropy and autonomy subscales of the Personal Style Inventory (Robins et al., 1994) and interpersonal and independence-achievement TAT story themes, respectively. This is consistent with another study using the Personal Style Inventory in combination with non-questionnaire measures by Raghavan et al. (2002). Witheridge et al. (2010) looked at the relationship between sociotropy and autonomy and personality-relevant themes using a written autobiographical memory recall task. They found support for autonomy themes (e.g., achievement failure, worthlessness, perfectionism) but not for sociotropy. However, the authors reported low base rates of memories containing clinical or cognitive content, which they suggest may have been due to the specific cue words used in the memory recall task (e.g., cue words included joy, glorious, guilty, failure).

Based on past research, it was expected that individuals scoring higher on sociotropy measured by the SAS would generate more interpersonal content and less independence-achievement content in the life experiences exercise than those scoring lower on sociotropy. It was also expected that participants scoring higher on the SAS independence and solitude subscales of autonomy would generate more independence-achievement and less interpersonal content in the life experiences exercise than those scoring lower on the autonomy subscales.

Event Valence

Another aspect of life events reported in the sociotropy-autonomy literature is the valence of content endorsed by participants (e.g., positive or negative). The current study assessed positive and negative content using the life experiences exercise by asking participants to generate situations that increased self-esteem and situations that decreased self-esteem. Past

studies report a reliable association between sociotropy and negatively valenced life events (e.g., Flett et al., 1997; Fresco et al., 2001; Frewen & Dozois, 2006a; Kwon & Whisman, 1998; Mazure et al., 2000; Robins & Block, 1988). However, Beck's (1983) initial observation that sociotropic individuals may be more reactive to positive events, as well as negative events, has rarely been examined empirically. Past research has focused on measuring negative life events (Dasch et al., 2008; Zautra et al., 2005), but some early research suggests there may be a positive correlation between sociotropy and reactivity to positive events as well (e.g., Dasch et al., 2008). With regard to autonomy subscales, findings from past studies are mixed. Although some studies have found an association between the independence subscale (sometimes termed *achievement*) and negatively valenced events (e.g., Fresco et al., 2001; Frewen & Dozois, 2006; Mazure et al., 2000), others do not report any association (e.g., Grondin et al., 2011; Allen et al., 1996; Nelson et al., 2001). Still others have suggested independence may act as a buffer against the impact of negatively valenced events (e.g., Bieling et al., 2004; Dasch et al., 2008). Studies that have examined the solitude subscale of autonomy have generally found an association with negative life events (e.g., Beshai et al., 2015; Clark & Oates, 1995; Mazure et al., 2000; Nelson et al., 2001; Sato & Gonzalez, 2009). It is important to examine the valence of event content associated with sociotropic and autonomous personality subscales in the current study.

Based on existing research, it was hypothesized that participants scoring higher on SAS sociotropy or solitude would generate more self-esteem decreasing and fewer self-esteem increasing situations in the life experiences exercise than those scoring lower on sociotropy. Conversely, it was hypothesized that participants scoring higher on the SAS independence dimension of autonomy would generate more self-esteem increasing and fewer self-esteem decreasing situations in the life experiences exercise than those scoring lower on independence.

Mood

While there is a sizeable research literature on the links between sociotropy, autonomy, and depression (e.g., Sato & McCann, 2002 for a review), there is relatively little direct investigation of the relationship with more transient mood states. In the present study, we address that gap and assessed negative mood states using the POMS mood questionnaire. The few studies that have examined this link suggest that state negative affect is associated with sociotropy but not independence-achievement subscales of the SAS (Grondin et al., 2011). Similarly, in their daily diary study, Dasch et al. (2008) reported that higher autonomy scores (on the Personal Style Inventory, Robins et al., 1994) predicted *weaker* reactivity in general in response to life events (i.e., less change in positive/negative mood states). However, Raghavan et al. (2002) found that independence-achievement autonomy (measured by the Personal Style Inventory), while not associated with dysphoria, did predict hostility. Additional assessment of state mood may thus permit a greater degree of specificity among the personality styles.

Based on the existing studies, in the current study it was hypothesized that SAS sociotropy and solitude would be positively correlated with negative mood, and that SAS independence would be uncorrelated with negative mood.

Method

Participants

Participants were recruited through the Undergraduate Research Participant Pool (URPP) at York University for a 1-hour laboratory study. All participants received 1.0 credit toward their Introductory Psychology course grade. The final sample of 106 participants had a mean age of 20.3 (SD= 6.3 years); ages ranged from 17 to 60, the sample was 84% female, with 89 females and 15 males (gender was not indicated for 2 participants).

Sixty-two percent of this sample was born in Canada and it was culturally diverse. The predominant cultural identification reported by participants was Canadian/ European ($n = 42$; 40%), followed by South/Southeast Asian ($n = 22$; 21%), Middle Eastern ($n = 10$; 9.5%), African ($n = 9$; 8.5%) and Caribbean/West Indian ($n = 9$; 8.5%), Mexican and Latin American ($n = 8$; 7.5%), East Asian ($n = 2$; 2%), and First Nations ($n = 1$; 1%). On a scale of 1 = *Not at all* to 7 = *Very much* for the degree to which participants identified with their primary cultural group reported above, the mean cultural identification score for this sample was 5.38 ($SD = 1.61$) and the mode was 7. Fifty-five percent of the current sample reported identifying with a secondary cultural group as well. Of these, Canadian/ European was the secondary cultural group identified with most frequently ($n = 24$; 22.6%). The majority of participants reported growing up in a large city ($n = 64$; 60%) or a small city ($n = 29$; 27%). Finally, 63% of the current sample's relationship status was single, followed by the 29% who reported being in a committed relationship but not married or common-law, and the remainder of the sample was distributed among married and separated statuses.

Procedure

Participants arrived at the laboratory in small groups (5-10 participants) and received a short presentation orienting them to the study, followed by a written informed consent form (Appendix A). Upon providing consent, participants received a questionnaire package that included the Life experiences exercise which asked them to generate written descriptions about as many situations as they could in which they felt their self-esteem had either increased or decreased. Participants also completed the Revised Sociotropy Autonomy Scale (SAS), Beck Depression Inventory (BDI-II), and mood state was assessed using the Profile of Moods States (POMS) questionnaire. Study measures were presented in randomized order. These measures

were followed by a demographics questionnaire and a mood-boosting exercise (in which participants were asked to rate a series of cartoon comics for humorousness). Participants were then individually verbally debriefed and provided with a written debrief form (Appendix B). All studies presented in this dissertation received approval from the Research Ethics Board at York University prior to commencing (Appendix C).

Measures

A brief overview of the measures included in the questionnaire package is presented in Table 1 below. Measures i. to iv. were administered in randomized order, followed by demographic questions, and the mood-boosting exercise, in this order.

Table 1

List of Study 1 Measures Administered

Measure	Description
i. Life experiences exercise	A spontaneous (open-ended) self-report measure of life events that asks participants to describe past life events
ii. Revised Sociotropy-Autonomy Scale (SAS)	Measure of trait sociotropy and autonomy that presents a series of statements and participants indicate extent to which each statement is self-descriptive
iii. Profile of Mood States (POMS)	Questionnaire of current mood states
iv. Beck Depression Inventory (BDI-II)	Measure of depression symptoms experienced in the last 2 weeks
v. Demographic Questionnaire	Age, gender, country born in, place where grew up, and cultural identity, relationship status

vi. Mood-boosting Exercise

Series of cartoon comics that participants evaluated for humorousness, intended to provide a mood-boost prior to leaving study

Life experiences exercise

Participants were presented with the following instructions: “For the next several minutes, do not write anything down. Please think of situations in the past 2-3 years when your own self-esteem (i.e., self-respect or self-worth) *increased* (*decreased*). In other words, start from today and think back to your last couple of years of high school or the last couple of years before starting your current University studies, which ever time is more recent.”

Participants received both self-esteem increasing and self-esteem decreasing instructions in randomized order. They were then asked to write about as many situations as they could when their self-esteem increased, and then to write about as many situations when self-esteem decreased. Participants were provided with 5 blank lines for each situation, which they could use to fill in a written description of the situation, no further prompts or instructions were provided. Space was designated for up to 20 life event descriptions. Each situation generated was coded for *interpersonal* and *independence-achievement* themes. The thematic content of the current coding scheme was developed based on theory and research on sociotropy and autonomy personality dimensions described by Beck (1983) and colleagues (e.g., Clark & Beck, 1991; Clark et al., 1992; Clark et al., 1995, Bieling et al., 2000, Bieling et al., 2004; Weishaar & Beck, 2006).

Content Analysis: Interpersonal and Independence-Achievement Themes.

Independence-achievement themes were defined a priori as making reference to the need and/or desire for independence, self-reliance and personal rights, including others blocking the need for

independence; mobility, physical and/or psychological free-movement; control; achievement and personal failure; and social comparison with others along dimensions of autonomy. A sample situation categorized as containing independence-achievement content is, "Last year I came to Canada to study without my parents and relatives. This was the first time I lived alone officially and the first stage of being independent." Interpersonal themes were defined a priori as making reference to the need and/or desire for relationships and interdependence; closeness and intimacy with others; belonging and acceptance or approval from others; to be valued, appreciated, and acknowledged by others; and concerns about physical appearance and attractiveness. A sample situation categorized as containing interpersonal content was, "My relationship with my best friend deteriorated. She blamed me for the breaking of our friendship." Each situation was scored on a continuous rating scale and assigned an 'interpersonal orientation' score from 1 = *highly independence-achievement* to 5 = *highly interpersonal*. Thus a higher score denotes a classification that is more related to interpersonal domains. Situations that explicitly contained a relative balance of both independence-achievement and interpersonal content themes were scored as 3 = *both*. Item scoring was conducted by the author and one independent coder, both blind to the questionnaire data. There was a high degree of inter-rater agreement, with an Intra-Class Correlation of .945, (95% CI, .924 to .959), $F = 18.07(159, 159)$, $p = .000$.

Revised Sociotropy-Autonomy Scale

The current dissertation employed the 59-item revised SAS (Clark et al., 1995), containing 3 subscales: sociotropy, independence, and solitude. While the sociotropy dimension of the SAS has been fairly consistently described in the research literature as a unidimensional construct, there are several different formulations of autonomy subscales reported in the literature. This is due in part to the use of different versions of the SAS scale (e.g., SAS; Beck et

al., 1983; *Revised SAS*; Clark & Beck, 1991). In their factor analysis, Clark and colleagues (1995) identified three personality constructs: sociotropy (dependency, need for intimacy and approval from others), independence (individualism and achievement, assertiveness, independence from others), and solitude (insensitivity/distance from the needs of others, ambivalence about social contact), which can be reliably measured using the 59-item Revised SAS scale. The current dissertation investigated the formulation offered by Clark and colleagues in 1995. Respondents indicate “what percentage of the time” each of a series of statements describes them, on a (five-point) scale from 0% to 100%. A sample sociotropy item is, “It is important to be liked and approved of by others.” The independence dimension deals with individualistic beliefs and independence from others. A sample independence subscale item is, “It is important for me to be free and independent.” Finally, a sample solitude subscale item is, “I sometimes unintentionally hurt the people I love the most by what I say.” The scales have been shown to be internally consistent with good convergent and discriminant validity (Clark et al., 1995).

Beck Depression Inventory

The BDI-II (Beck, Steer, & Brown, 1996) is a 21-item measure of depression. Respondents select one of four statements that best reflects their mood state over last two weeks. This measure has been extensively studied in research with clinical and (non-clinical) undergraduate student populations. The BDI-II has repeatedly been shown to be a reliable and valid measure of depressive symptoms (e.g., Beck, Steer, & Brown, 1996; Beck, Steer, Ball, & Ranieri, 1996; Dozois et al., 1998).

Profile of Moods States

The POMS (McNair et al., 1971) is a 65-item questionnaire of mood states with two main subscales: negative and positive mood. Respondents indicate level of agreement with each item on a scale from *1 = not at all* to *5 = extremely*. The negative mood subscale of the POMS was used to assess negative mood, and a mean score for this subscale was calculated by averaging scores across all negative mood items. The scale has been found to be a valid measure of mood states with good reliability (Bourgeois et al., 2010; McNair et al., 1971; Spielberger, 1972). The widespread documented usage of this scale in research also suggests “inherent psychometric merit” (Bourgeois et al., 2010, p. 370).

Demographics

After presentation of the study measures listed above, participants completed a demographic questionnaire using checklist and fill-in-the-blanks asking participants to indicate age, gender, country born in, cultural identity, the kind of place they grew up in (e.g., large city, rural area), and relationship status.

Mood-boosting Exercise

The last exercise appearing in participants’ questionnaire package asked participants to rate a series of cartoon comics on a scale from *1 = Not at all funny* to *7 = Very funny*. This short activity was designed to provide a positive mood-boosting experience for participants prior to leaving the study.

Analysis plan. Two sets of analyses were conducted to examine the extent to which SAS subscale scores predicted the dependent variables (situation content, valence of the content, and negative mood; see Table 2 below). Correlation and regression techniques were applied to a content analysis of situation descriptions to examine interpersonal themes appearing in situations

generated by participants scoring higher on SAS sociotropy and autonomy in the life experiences exercise. Descriptive statistics and correlations are presented first, followed by results from regression models. In the first analytical approach, situation content was examined as a continuous dependent variable (i.e., mean interpersonal orientation score). Correlation analysis was conducted in order to examine the extent to which SAS subscale scores (sociotropy, independence, solitude) predicted situation content using continuous mean interpersonal orientation scores. As described above, each situation participants generated was scored for interpersonal orientation content themes on a scale from *1 = highly independence-achievement* to *5 = highly interpersonal*. A mean interpersonal orientation score was calculated for each by participant by averaging the scores for all situations generated by that participant. A higher mean interpersonal orientation score indicates situations were classified as containing more interpersonal and less independence-achievement content, and the reverse is indicated by a lower mean interpersonal orientation score. Correlation analysis was conducted first to examine the extent to which SAS subscale scores predicted and (continuous) mean interpersonal orientation collapsed across self-esteem decreasing/increasing situation categories. Then, additional correlation analysis was conducted to examine the extent to which they predicted (continuous) mean interpersonal orientation for self-esteem increasing and decreasing situations, separately. Correlations were also used to examine the relationship between SAS scores and negative mood scores.

In the second analytical approach, situation content and valence were examined as discrete categories. The categorical content dependent variable was created by tallying, for each participant, the total number of highly independence-achievement situations (i.e., scored “1” out of 5) and the total number of highly interpersonal situations (i.e., scored “5” out of 5). The

categorical valence dependent variable was created by tallying the total number of self-esteem decreasing situations and the total number of self-esteem increasing situations generated by each participant. Regression analyses were conducted in order to examine the kinds of situations that were most frequently generated by individuals scoring higher on SAS sociotropy or autonomy. Specifically, regression analyses compared the extent to which SAS scores predicted the frequency with which highly independence-achievement (scored "1" out "5") vs. highly interpersonal situations (scored "5" out of 5) were generated. Regression analyses were also conducted to examine the relationship between SAS scores and the frequency with which self-esteem decreasing vs. self-esteem increasing situations were generated. Generalized Estimating Equations (*GEE*; Zeger & Liang, 1986; Zeger et al., 1988) were selected to address the fact that observations in the current study are not independent (i.e., frequency counts for categories compared were generated by the same participant). The marginal fitted model using the GEE approach (Liang & Zeger, 1986) is an extension of the Generalized Linear Model that provides a useful and flexible approach to modelling correlated data in the behavioural sciences (Pekar & Brabec, 2018, p. 86). This technique pre-specifies the correlation structure in residuals, however the key feature is that even if the working correlation is incorrectly specified, the inferences will be correct for large samples (and increasingly accurate as sample size tends to infinity, Pekar & Brabec, 2018, p. 90). The GEE method can be used with non-normal data such as count data, as well as normally distributed continuous linear data (Ghisletta & Spini, 2004; McCue et al., 2008; Norton et al., 1996; Zeger et al., 1988). The type of GEE model employed in the current study was determined by the characteristics of the dependent variable (e.g., count and non-normal). Poisson regression models for count data were used to examine count dependent variables (frequency of independence-achievement vs. interpersonal situations; self-esteem increasing vs.

decreasing situations). Poisson regression is appropriate to use with Poisson distributed count data (e.g., Halim et al., 2013; Homish et al., 2010; McNeish et al., 2017), including count data that approximates a normal distribution (Walker, 2018). All Poisson regression models for count data reported hereafter were examined for over-dispersion by checking that Standardized Pearson Residuals were approximately normally distributed. To set up regression models, the categories being compared (e.g., highly independence-achievement vs. highly interpersonal) were dummy-coded (“1”, “2”), creating a category index variable, which was entered as the within-person factor in a series of regression models that included one of the three personality variables (SAS sociotropy, independence, or solitude) as the predictor. Finally, an interaction term was created (personality variable x category index) to permit the comparison of the two categories of frequencies (e.g., independence-achievement vs. interpersonal) that were generated as a function of the personality variable. Each model consisted of: $Y = \text{intercept} + \text{personality predictor} + \text{category index} + \text{personality variable} \times \text{category index}$. This procedure was repeated to examine the categorical valence dependent variable (i.e., frequency of self-esteem decreasing vs. self-esteem increasing situations generated). Separate Poisson models were run for each personality variable (SAS sociotropy, independence, solitude). In Study 1, additional regression models controlling for either negative mood or BDI-II depression symptoms were run where there was a significant personality x category index interaction (indicating category frequencies were differentially predicted by SAS score), in order to control for the potential effect of negative mood or depression symptoms. Note that results of regression analyses presented in this dissertation are reported for *one-way* tests of significance ($\alpha = .05$).

Table 2*Overview of Study 1 Variables*

Independent variables	Dependent variables
Sociotropy	Content (frequency of independence-achievement vs. interpersonal themes)
Independence	Valence (frequency of self-esteem decreasing vs. increasing)
Solitude	Mean interpersonal orientation - all situations
	Mean interpersonal orientation - self-esteem decreasing situations
	Mean interpersonal orientation - self-esteem increasing situations
	Negative mood
	Depression symptoms

Note. Dependent variables in bold represent frequency counts and were analyzed with regression models. Non-bold variables represent continuous scores analyzed using correlations.

Results

General Sample Characteristics

Means and standard deviations for study scales described below are comparable with previous studies using similar undergraduate samples (e.g., Clark et al., 1995; Dozois et al., 1998; Rasmussen & Jeffrey, 1995). Study scales were reliable (α was .70 to .97) and bivariate correlations among measures showed good convergent and discriminant validity in the current sample. Additional detail is presented in a summary table in Appendix D.

Sociotropy and Autonomy

Scores for SAS subscales range from 0 to 4: “Describes me” 0% of the time = 0; “Describes me” 25% of the time = 1; “Describes me” 50% of the time = 2; “Describes me” 75% of the time = 3; “Describes me” 100% of the time = 4.

On the sociotropy subscale of the SAS, the mean score for the current sample was 2.44 ($SD = .61$), which would mean on average participants reported sociotropy items described them

more than half the time (60% of the time). Approximately 55% of all participants in this sample had a mean sociotropy score between 2 (i.e., “Describes me 50% of the time”) and 3 (i.e., “Describes me” 75% of the time), followed by 23% of participants who had a mean score between 1 (i.e., “Describes me” 25% of the time) and 2 (i.e., “Describes me” 50% of the time), 22% of participants who had a mean score between 3 and the highest mean sociotropy score in the current sample of 3.72 (i.e., this would mean sociotropy statements described them *slightly* less than 100% of the time), and less than 1% of participants had a mean sociotropy score between 0 (i.e., “Describes me” *slightly* more than 0% of the time) and 1 (i.e., “Describes me” 25% of the time).

On the independence subscale of the SAS, the mean score for the current sample was 2.78 ($SD = .47$), which would mean on average this sample scored slightly higher on independence than on the other two SAS subscales, reporting on average that independence items described them nearly 70% of the time. Approximately 63% of all participants in this sample had a mean independence score between 2 (i.e., “Describes me 50% of the time”) and 3 (i.e., “Describes me” 75% of the time), followed by 32% of participants had a mean score between 3 and the highest mean independence score in the current sample of 3.76 (i.e., “Describes me” *slightly* less than 100% of the time), and 4.7% of participants had a mean score between 1 (i.e., “Describes me” 25% of the time) and 2 (i.e., “Describes me” 50% of the time).

On the solitude subscale of the SAS, the mean score of the current sample was 1.70 ($SD = .55$), which would mean on average participants reported solitude items described them less than half the time (42.5% of the time). Approximately 69% of all participants in this sample had a mean solitude score between 1 (i.e., “Describes me 25% of the time”) and 2 (i.e., “Describes me” 50% of the time), followed by 25% of participants who had a mean score between 2 (i.e.,

“Describes me 50% of the time”) and 3 (i.e., “Describes me” 75% of the time), 5.5% of participants had a mean score between 0 (i.e., “Describes me” 0% of the time) and 1 (i.e., “Describes me” 25% of the time), and less than 1% of participants had the highest mean solitude score in the current sample of 3.15 (i.e., “Describes me” *slightly* more than 75% of the time).

Mood

The negative mood subscale of the POMS was utilized to assess negative mood states in the current sample. Scores for POMS negative mood subscale range from 0 to 4: “Describes how you feel today” Not at all = 0; A little = 1; Moderately = 2; Quite a bit = 3; and Extremely = 4. The mean negative mood score in this sample was 1.11 ($SD = .77$), which would mean on average participants reported “a little” negative mood. Approximately half the participants scored in the range of little to no negative mood, 37.5% little to moderate negative mood, 9.4% moderate to quite a bit of negative mood, and 2% reported quite a bit to extreme negative mood.

Depression Symptoms

According to Dozois et al. (1998), the score category ranges for the BDI-II for use with an undergraduate student sample are: non-depressed (0-12), dysphoric (13-19), dysphoric-depressed (20-63). The mean BDI-II score for this sample was 17.63 ($SD = 10.56$); of the 106 participants in this study, 41.5% were in the non-depressed range, 15% were in the dysphoric range, and 43.5% were in the dysphoric-depressed range, with the highest BDI-II score for this sample being 48.

Life Experiences Exercise Content

Participants generated a total of 1,244 situations. Females ($n = 89$) generated 1,035 situations and males ($n = 15$) generated 184 situations. On average then, females and males in the current sample generated roughly the same number of situations each ($M = 11.70$, $SD = 5.34$

and $M = 12.27$, $SD = 5.51$; $t(100) = -.377$, $p = .707$). In general, participants in this sample generated more interpersonal than independence-achievement situation content, which is consistent with previous research (e.g., Bolger et al., 1989). For example, the mean frequency of highly interpersonal situations (i.e., scored '5' out of 5) generated per participant is 6.125, and the mean frequency of highly independence-achievement situations (scored '1' out of 5) per participant is 3.78. Female participants, however, on average generated highly interpersonal situations with almost twice the frequency of highly independence-achievement situations ($m = 6.31$, $sd = 4.30$ and $m = 3.52$, $sd = 2.86$; $t(86) = 4.92$, $p = .000$), whereas this sample of males generated roughly the same proportion of highly interpersonal vs. highly independence-achievement situations ($m = 5.2$, $sd = 4.41$ and $m = 5.07$, $sd = 3.73$; $t(14) = -.088$, $p = .931$).

Valence of the Content of Life Experiences Exercise

Participants generated a total of 643 self-esteem increasing and 601 self-esteem decreasing situations. On average, female participants ($n = 89$) generated roughly equal numbers of self-esteem increasing and self-esteem decreasing situations ($m = 6.0$, $sd = 3.22$ and $m = 5.72$, $sd = 2.70$; $t(86) = .91$, $p = .37$); whereas males ($n = 15$) generated more self-esteem increasing than self-esteem decreasing situations ($m = 7.1$, $sd = 3.33$ and $m = 5.2$, $sd = 2.60$; $t(14) = 3.15$, $p = .007$).

Correlation Analyses

Table 3 provides the zero-order correlations between study variables and continuous mean interpersonal orientation of situation content (each situation was scored on a scale from 1 = *highly independence-achievement* to 5 = *highly interpersonal* and then a mean score was calculated for each participant by averaging across all situations generated by that participant). First, correlations with overall mean interpersonal orientation scores were examined by

collapsing across self-esteem decreasing and increasing situations. Second, correlations with mean interpersonal orientation were examined separately for self-esteem decreasing and self-esteem increasing situations. To briefly review, positive correlations with mean interpersonal orientation indicate that, as scores on the predictor variable increase, situations generated contained more interpersonal content and less independence-achievement content. Conversely, negative correlations with mean interpersonal orientation indicate that, as scores on the predictor variable increase, situations generated contained more independence-achievement content and less interpersonal content. Finally, correlations between SAS scores and negative mood were examined.

As expected, sociotropy scores were positively correlated with mean interpersonal orientation ($r = .19, p = .025$). It was found that as sociotropy scores increase, it is self-esteem *decreasing* situations (but not self-esteem increasing situations) that tended to contain more interpersonal themes ($r = .24, p = .006$; and $r = .07, p = .242$, respectively). The correlation between the independence subscale and mean interpersonal score was negative but not statistically significant ($r = -.14, p = .085$), providing marginal support for the expectation that those scoring higher on independence would generate more independence-achievement content and less interpersonal content. The expected correlation between the solitude subscale and independence-achievement content was not supported ($r = .038, p = .351$).

As hypothesized, sociotropy was significantly correlated with negative mood ($r = .31, p = .002$) while independence was not correlated with negative mood ($r = -.02, p = .81$). Contrary to the hypothesis, solitude was not significantly correlated with negative mood ($r = .18, p = .062$).

Table 3*Pearson Correlations for Study 1 Variables*

Study Scales	Correlations							
	1.	2.	3.	4.	5.	6.	7.	8.
1. Sociotropy								
2. Independence	-.15							
3. Solitude	.28**	.40**						
4. MIO	.19*	-.15	.038					
5. MIO Decrease	.24**	-.08	.05	.82**				
6. MIO Increase	.07	-.13	.01	.81**	.33**			
7. Negative Mood	.31*	-.02	.18	.24*	.31*	.10		
8. BDI-II	.44**	-.09	.23*	.23*	.26**	.12	.724**	

Note. MIO = mean interpersonal orientation score; MIO Decrease = mean interpersonal orientation score for self-esteem decreasing situations; MIO Increase = mean interpersonal orientation score for self-esteem increasing situations: Higher MIO scores represent more interpersonal content, lower scores represent more independence-achievement content.

* $p < .05$, ** $p < .01$ (2-tailed).

Regression Analyses

Tables 4a to 5c provide the results of Poisson regression models for count data comparing the frequencies with which participants scoring higher on SAS sociotropy or autonomy subscales generated different kinds of situation content (highly independence-achievement vs. highly interpersonal) and valence (self-esteem decreasing vs. self-esteem increasing) categories. Note again, the interaction term reported in the tables was used to permit the comparison of the two categories of frequencies (e.g., independence-achievement vs. interpersonal) that were generated by each participant as a function of the personality variable. For completeness of reporting,

unstandardized slope coefficients (*B*) and standard errors (*SE*) are presented in the tables for each variable, but note also, they should not be interpreted as simple slopes: the personality predictor (e.g., sociotropy) must be interpreted in relation to the two categories of the dependent variable being compared in GEE analysis (i.e., by graphing the "interaction"). Simple slopes, where relevant, are illustrated in the figures presented throughout.

As expected, those scoring higher on sociotropy generated significantly more interpersonal situations and fewer independence-achievement situations ($\chi^2 = 3.61(1), p = .029$). The figures provided below illustrate significant interactions presented in the natural scale (i.e., unit count) of the dependent variables. From Figure 1a we can see that with a one unit increase in mean sociotropy, for example from 2.0 to 3.0, participants generated 1.45 more interpersonal situations, and 0.71 fewer independence-achievement situations. As expected, those scoring higher on independence generated significantly more independence-achievement situations and fewer interpersonal situations ($\chi^2 = 2.73(1), p = .049$). From Figure 1b we can see that with a one unit increase in mean independence from 2.0 to 3.0, participants generated 1.05 more independence-achievement situations, and 0.21 fewer interpersonal situations. Contrary to expectations, the frequencies with which different situation content themes were generated did not vary significantly as a function of solitude in this sample ($\chi^2 = 1.34(1), p = .124$).

Figure 1a

Simple Slopes of Sociotropy by Content Category on Situation Frequency

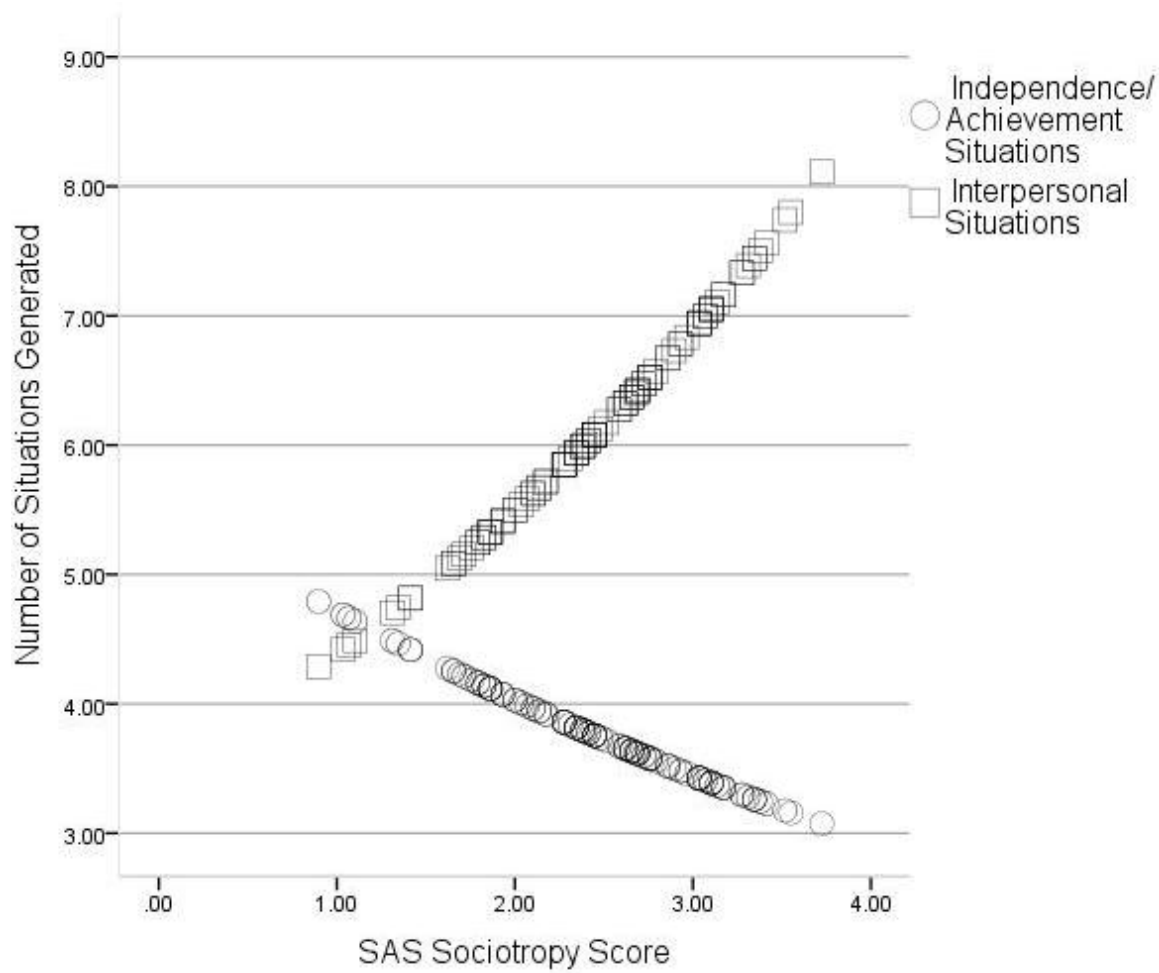
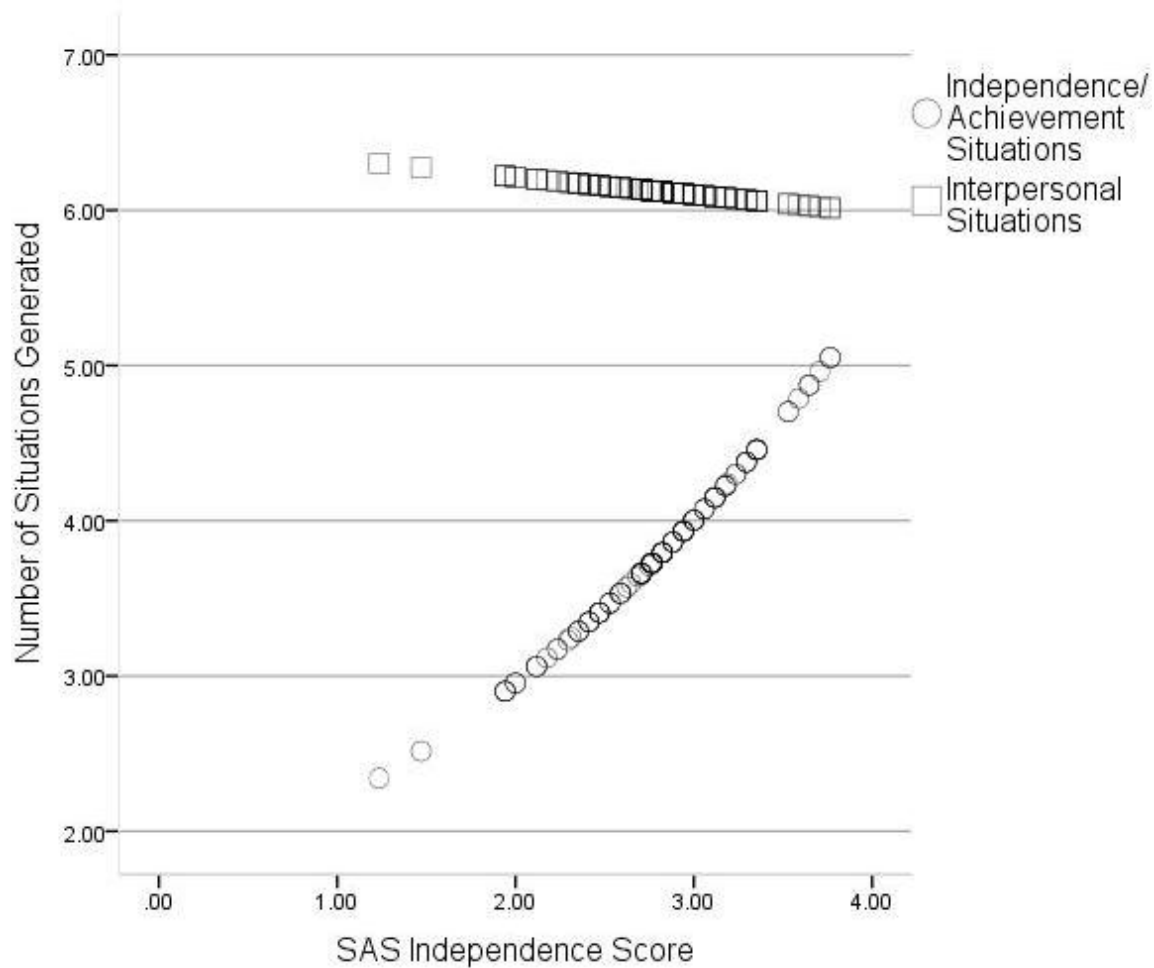


Figure 1b

Simple Slopes of Independence by Content Category on Situation Frequency



The results supported the second set of study hypotheses with respect to the valence of the content. Those scoring higher on sociotropy generated significantly more self-esteem decreasing situations and fewer self-esteem increasing situations ($\chi^2 = 5.0(1), p = .013$). From Figure 2a we can see that with a one unit increase in mean sociotropy from 2.0 to 3.0, participants generated .80 more self-esteem decreasing situations. Given that approximately half of the participants in this sample generated five or less negative situations (range = 1-16), this

result may be noteworthy. As hypothesized, those scoring higher on independence generated significantly more self-esteem increasing situations and fewer self-esteem decreasing situations ($\chi^2 = 4.72(1)$, $p = .015$). From Figure 2b we can see that with a one unit increase in mean independence, for example from 2.0 to 3.0, participants generated 1.13 more self-esteem increasing situations. Again, 50% of participants in this sample generated five or less positive situations (range = 1-16). Results did not support predictions for the solitude dimension of autonomy: those scoring higher on solitude were not more likely to generate self-esteem decreasing situations than those scoring lower on solitude ($\chi^2 = .04(1)$, $p = .42$).

Figure 2a

Simple Slopes of Sociotropy by Valence Category on Situation Frequency

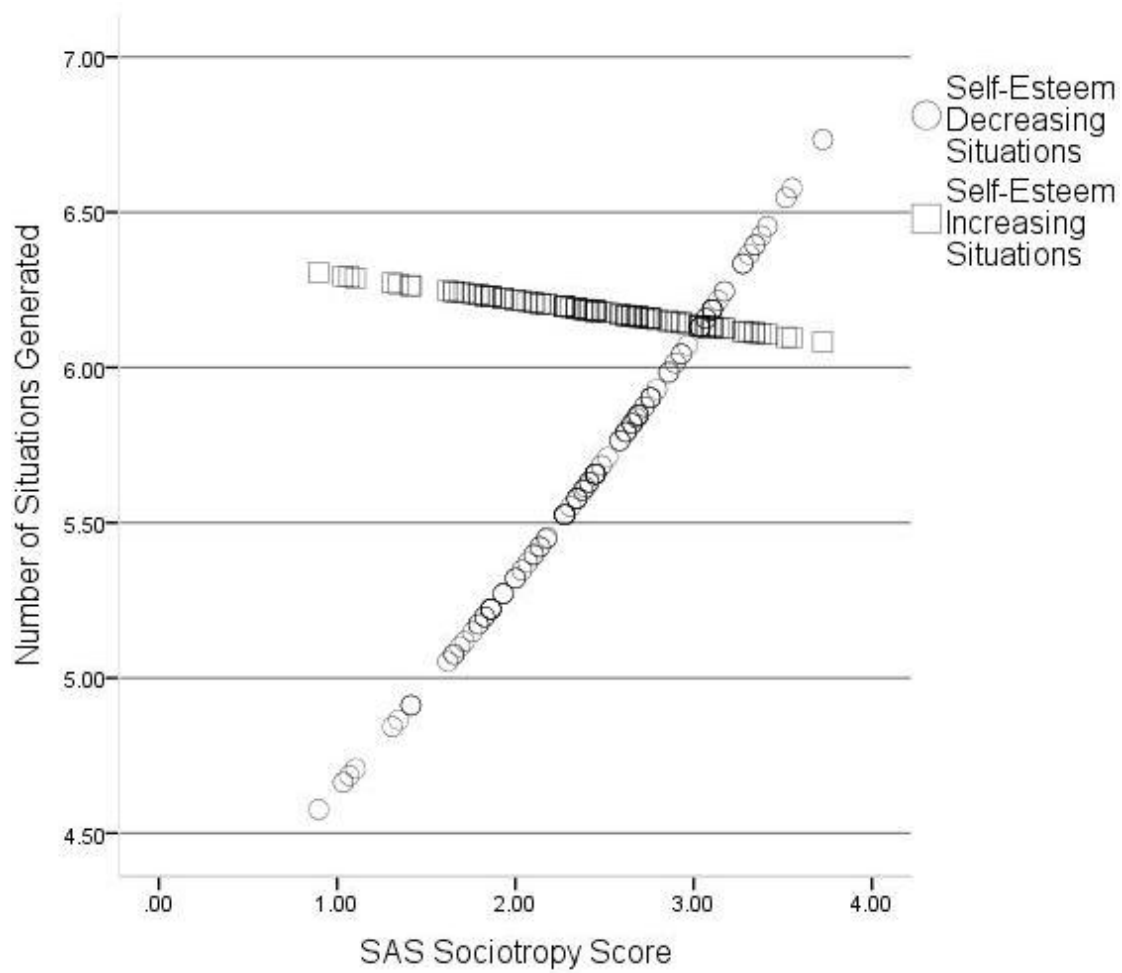
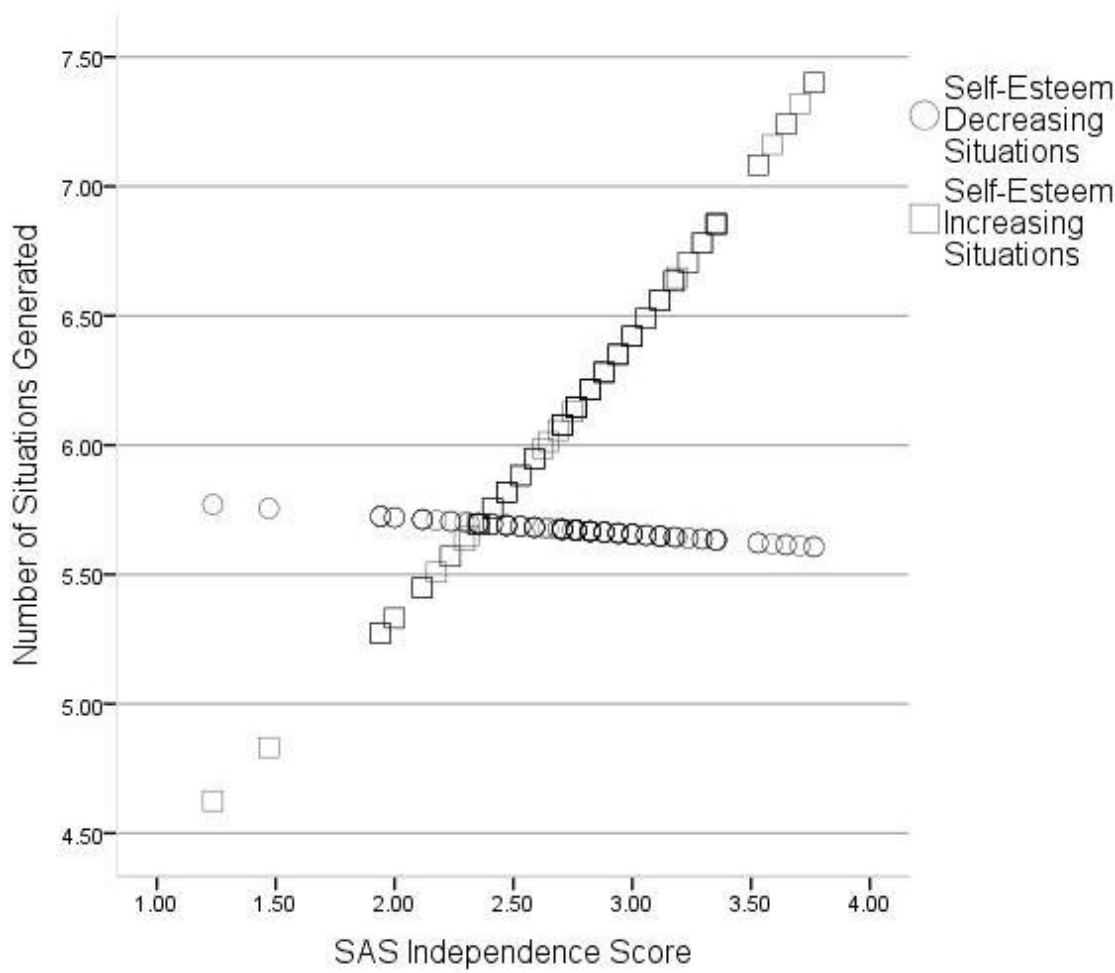


Figure 2b

Simple Slopes of Independence by Valence Category on Situation Frequency



Effect sizes and Model Fit

By correlating the mean predicted values with observed values, we can obtain a 'Pseudo R²' goodness of fit index to describe how closely the GEE model fits observed values and how much of the variance in the dependent variable can be explained by it (H. McCague, personal correspondence, September 20, 2017; M. Ondrack, personal correspondence, February 21, 2019). The Pseudo R² values suggest sociotropy explains 34.6%, and independence explains

31.9% of the variance in independence-achievement vs. interpersonal situations generated, respectively. The Pseudo R² values for models predicting situation valence suggest that sociotropy and independence explain 14.1% and 15.2% of the variance in the number of self-esteem increasing and decreasing situations generated, respectively. Pseudo R² values are hereafter presented with regression results in-text.

Table 4a

Results of GEE with Sociotropy Predicting Independence-Achievement and Interpersonal Content Counts

Regression Predictor	B	SE	Wald χ^2	df	p
Sociotropy	.226	.12	.160	1	.345
Content Category	.454	.50	.833	1	.181
Content Category x Sociotropy	-.383	.20	3.61	1	.029

Table 4b

Results of GEE with Independence Predicting Independence-Achievement and Interpersonal Content Counts

Regression Predictor	B	SE	Wald χ^2	df	p
Independence	-.018	.122	2.13	1	.073
Content Category	-1.39	.537	6.70	1	.005
Content Category x Independence	.322	.20	2.73	1	.049

Table 4c

Results of GEE with Solitude Predicting Independence-Achievement and Interpersonal Content Counts

Regression Predictor	B	SE	Wald χ^2	df	p
Solitude	.108	.119	.000	1	.500
Content Category	-.12	.32	.126	1	.361
Content Category x Solitude	-.22	.19	1.34	1	.124

Table 5a

Results of GEE with Sociotropy Predicting Self-Esteem Increasing and Self-Esteem Decreasing Valence Counts

Regression Predictor	B	SE	Wald χ^2	df	p
Sociotropy	-.013	.078	.774	1	.190
Valence Category	-.454	.163	7.73	1	.003
Valence Category x Sociotropy	.149	.064	5.41	1	.010

Table 5b

Results of GEE with Independence Predicting Self-Esteem Increasing and Self-Esteem Decreasing Valence Counts

Regression Predictor	B	SE	Wald χ^2	df	p
Independence	.186	.101	1.14	1	.143
Valence Category	.465	.258	3.25	1	.036
Valence Category x Independence	-.20	.093	4.52	1	.017

Table 5c

Results of GEE with Solitude Predicting Self-Esteem Increasing and Self-Esteem Decreasing Valence Counts

Regression Predictor	B	SE	Wald χ^2	df	p
Solitude	.032	.092	.30	1	.294
Valence Category	-.12	.13	.82	1	.183
Valence Category x Solitude	.018	.071	.065	1	.40

In the additional Poisson models controlling for depression symptoms and negative mood with sociotropy as a predictor, neither depression symptoms nor negative mood were significant predictors of situation content (Wald $\chi^2 = .082(1)$, $p = .388$; Wald $\chi^2 = .918(1)$, $p = .17$, respectively) or situation valence (Wald $\chi^2 = .199(1)$, $p = .328$; Wald $\chi^2 = 1.47(1)$, $p = .113$, respectively). In the additional Poisson models that included independence as a predictor, neither depression symptoms nor negative mood were significant predictors of situation content (Wald $\chi^2 = .012(1)$, $p = .229$; Wald $\chi^2 = .42(1)$, $p = .259$, respectively) or situation valence (Wald $\chi^2 = 1.408(1)$, $p = .118$; Wald $\chi^2 = 2.63(1)$, $p = .053$, respectively). The two sets of analyses above, which examine a continuous measure of interpersonal orientation of content and content as discreet categories (representing frequency counts), are generally consistent with study predictions, such that those scoring higher on sociotropy generated more interpersonal and self-esteem decreasing situations and fewer independence-achievement and self-esteem increasing situations; whereas those scoring higher on independence generated more independence-achievement situations and fewer interpersonal and self-esteem decreasing situations.

Discussion

Study 1 findings provide support for the diathesis-stress model of depression, replicating past studies using a novel method to generate richer qualitative accounts than previously reported. This study represents one of the few investigations to utilize spontaneous measurements of self-defining life experiences in relation to individual differences in sociotropy-autonomy. The current data showed sociotropy and independence subscales predicted personality-congruent situations over and above the presence of negative mood or depression symptoms. Past studies have focused on negative life events, and findings from the current study are consistent with previous studies that have employed questionnaire,

spontaneous self-report, and experimental methods to look at the relationship between sociotropy and negative interpersonal experience (e.g., Flett et al., 1997; Raghavan et al., 2002; Sohlberg et al., 2006). In addition this study offers new findings about the relationship between sociotropy and positive life events (e.g., Dasch et al., 2008). Study 1 data suggest that the more sociotropic an individual is, the less they tend to focus on self-esteem increasing situations. While previous questionnaire research has produced mixed results for the relationship between independence and the experience of positive independence-achievement-related events, Study 1 findings are consistent with other studies using (non-questionnaire) spontaneous self-report methods (e.g., Kwon et al., 2001; Raghavan et al., 2002; Witheridge et al., 2010). One explanation for these findings, especially with respect to independence, is that questionnaire and checklist research prevalent in past studies may not have adequately captured important facets of sociotropy and autonomy (see Frewen & Dozois, 2006a; Kwon & Whisman, 1998 for discussions related to this problem). For instance, events involving control or self-determination, or more generally, "events that restrict independence without explicitly involving failure (e.g., job mobility)" (Frewen & Dozois, 2006, p. 3), may represent a core feature of autonomy (Little & Garber, 2000; Mazure et al., 2001; Nelson et al., 2001; Sato & McCann, 1997), but have been neglected in the literature (Bieling et al., 2000; Frewen & Dozois, 2006). Moreover, the continuous classification system applied to spontaneous content in the current study reduced the need to fit overlapping themes into discreet categories, common in sociotropy-autonomy research (Abramson et al., 1997; Frewen & Dozois, 2006a, 2006b; Kwon & Whisman, 1998), permitting a greater degree of specificity between the personality dimensions.

The finding that SAS sociotropy and generating situations that contain more interpersonal content were positively associated with negative mood is important to document as part of the

sociotropic self-concept constellation. These findings are consistent with previous reports of the link between interpersonally-themed spontaneous content and mood (e.g., Flook, 2011), but note these variables were also correlated with depression in the current data. Study 2 extends these findings by experimentally manipulating interpersonal orientation to examine the effect on spontaneous self-concept content and negative mood. Does shifting the focus of interpersonal orientation shift spontaneous content and reduce negative mood for those scoring higher on sociotropy or autonomy?

Chapter 3

Study 2

How do Individual Differences Interact with Interpersonal Cues to Shape Spontaneous Self-Concept Content and Mood?

Study 1 reports on the extent to which SAS scores can predict spontaneous self-concept content related to sociotropy-autonomy themes, and the relationships among the SAS, spontaneous content, and negative mood. Studies 2 and 3 of this dissertation extend these findings by investigating the effect of contextual cues about interpersonal orientation by manipulating participants' focus on personal vs. interpersonal aspects of the self-concept using experimental methods. Trait sociotropy-autonomy was assessed using the Sociotropy-Autonomy Scale (SAS), spontaneous self-concept content was assessed by looking at content themes generated in response to the Twenty Statements Test (*TST*; Kuhn & McPartland, 1954), and state mood was assessed using a state mood questionnaire (POMS). Study 2 also measured implicit self-esteem as an additional facet of spontaneous self-concept content, using a task called the Name Letter Test (Nuttin, 1985) described below. Interpersonal orientation cues were experimentally manipulated using a self-construal priming procedure from cultural psychology called the similar/different task (Trafimow et al. 1991). In this task, participants were instructed to think about either what they have in common with or how they are different from friends and family. Then we observed the effects of the manipulation of participants' responses to the Twenty Statements Test (*TST*), which asks respondents to complete 20 statements beginning with, "I am," followed by the measure of state mood, and then the implicit self-esteem measure. I was interested in looking at how contextual cues about interpersonal orientation might interact with individual differences in SAS sociotropy and autonomy to produce different patterns of

spontaneous self-concept content and mood. This provided a unique opportunity to isolate the effect of interpersonal orientation cues on spontaneous content and mood at different levels of sociotropy and autonomy. Study 2 dependent measures (TST statement content, valence of the TST content, mood, and implicit self-esteem) were assessed in the laboratory immediately following the experimental prime (i.e., Time 1), and again one day later in order to explore the stability of effects obtained in the laboratory (i.e., Time 2).

Twenty Statements Test Content

Self-concept change has been defined as "the variation in self-content as the result of immediate situational factors" (Gore & Cross, 2011, p. 135). Some initial evidence suggests that SAS subscale scores can change over the course of cognitive therapy (Bieling et al., 2004). Bieling et al. (2004) reported that depressed patients who responded to cognitive therapy (measured as reductions in depression symptoms and negative beliefs about the future) showed decreases on the sociotropy subscale, while scores on the independent goal attainment subscale increased over time. The authors suggest findings from this study may indicate that the emphasis on independent ways of defining the self-concept, fostered in cognitive therapy, led to less sociotropic self-definitions, and in turn, reduced negative self-views and depression (Bieling et al., 2004). These findings are in-line with Beck's (1983) original theory that overinvestment in either sociotropy or autonomy creates a vulnerability to depression.

In the related area of research on cultural concepts of independent and interdependent self-construal, studies have examined the effects of self-construal primes (e.g., Trafimow's similar/different task) on participants' spontaneous self-concept measured by the Twenty Statements Test. In one classic study, Trafimow et al. (1991) content analyzed the proportions of three different kinds of statements made on the Twenty Statements Test: *allocentric* self-

descriptions, which they defined as “referring to a quality of interdependence, friendship, responsiveness to others, and sensitivity to the viewpoint of others” (p. 650), *collective* self-descriptions relating to the group self, and *idiocentric* self-descriptions relating to the private self. Overall, they found that participants who received the independent self-construal prime generated more idiocentric statements and fewer collective statements compared to those who received the interdependent self-construal prime, regardless of cultural background (Trafimow et al., 1991, Study 1). However, since allocentric responses were not directly related to the theoretical framework investigated, the authors did not report results for allocentric statements.

Based on previous studies, it was hypothesized that participants who scored higher on either SAS sociotropy, independence, or solitude and received the interdependent self-construal prime would generate more allocentric and fewer idiocentric statements than those who received the independent self-construal prime. It was also hypothesized that participants who scored higher on either SAS sociotropy, independence, or solitude and received the independent self-construal prime would generate more idiocentric and fewer allocentric statements than those who received the interdependent self-construal prime.

Valence of the Content of Twenty Statements Test

Although there is little existing research that has specifically examined the effect of manipulating interpersonal cues on the valence of self-concept content, the literature can provide some clues about the proportion of positive vs. negative self-descriptive content that might be expected in response to a self-construal priming procedure. First, there is the proposal reviewed above by Bieling et al. (2004), that cognitive therapy reduced negative beliefs about the self and the future as a result of an enhanced sense of independence (and reduced dependency). Second, results from a study that subliminally primed personality-relevant stimuli found that for

sociotropics, priming sociotropy-related cues (e.g., abandonment themes) resulted in a decrease in positive autobiographical memories generated (Sohlberg et al., 2006). The current study directly examined the valence (negative/positive) of statements made in response to the Twenty Statements Test by those scoring higher on SAS sociotropy or autonomy following the self-construal priming manipulation.

Based on past findings, it was hypothesized that participants who scored higher on SAS sociotropy and received the independent self-construal prime would generate more positive and fewer negative statements than those who received the interdependent self-construal prime. It was also hypothesized that participants who scored higher on SAS independence and received the interdependent self-construal prime would generate more positive and fewer negative statements than those who received the independent self-construal prime. Results for the solitude subscale of the SAS were hypothesized to mirror those found for the independence subscale.

Implicit Self-Esteem

Some research has suggested that explicit beliefs about the self-concept may differ from privately held or implicit beliefs, for example, explicitly evaluating oneself negatively while implicitly maintaining positive self-esteem (e.g., Kitayama & Uchida, 2003). To address this possibility, the current study also assessed implicit self-esteem using the Name Letter Test (Nuttin, 1985) as an additional facet of spontaneous self-concept content. The Name Letter Test (NLT) asks participants to rate how much they like each letter of the alphabet; it is assumed people with high implicit self-esteem should prefer the letters contained in their own name more than other letters, whereas those with low implicit self-esteem should like other letters more than the letters of their own name (Kitayama & Karasawa, 1997).

To explore the possibility of discrepant public and private self-views, in Study 2 it was also hypothesized that participants who scored higher on SAS sociotropy and received the independent self-construal prime would report lower implicit self-esteem than those who received the interdependent self-construal prime. Conversely, it was hypothesized that participants who scored higher on the independence or solitude subscales of the SAS and received the interdependent self-construal prime would report lower implicit self-esteem than those who received the independent self-construal prime.

Mood

Based on past studies investigating the effects of therapy on depression symptoms in relation to sociotropy and autonomy reviewed earlier (e.g., Bieling et al., 2004), and in accordance with Beck's (1983) theory that an excessive focus on sociotropic or autonomous domains predisposes dysphoric mood, the current study made the following predictions. It was hypothesized that participants who scored higher on SAS sociotropy and received the independent self-construal prime would report less negative mood than those who received the interdependent self-construal prime. Conversely, it was hypothesized that participants who scored higher on the independence or solitude subscales of the SAS and received the interdependent self-construal prime would report less negative mood than those who received the independent self-construal prime.

Stability of Effects

With respect to all predictions made in Study 2, it was further hypothesized that results found immediately after the experimental laboratory prime (at Time 1) should hold when measured again outside the laboratory after a one-day time delay (at Time 2).

Method

Study 2 consisted of two parts described to participants as investigating personality, imagination, and the self. This two-part study consisted of two testing sessions on campus (Part 1) and one online testing session (Part 2): Part 1 involved a 1-hour questionnaire and a 1-hour experiment completed on separate occasions in the laboratory; Part 2 involved an online questionnaire administered after a one day time-delay, using smartphone technology.

Participants

Participants were Introductory Psychology students recruited from the URPP at York University. All participants received 2.0 credits toward Introductory Psychology course grades as well as a ballot for a chance to win one of five \$50 gift cards to the York University Bookstore. Overall, the sample demographics were consistent with the previous studies reported in this dissertation. The final sample at Time 1 (the laboratory experiment) of 112 participants had a mean age of 20.3 ($SD = 3.7$) years; ages ranged from 17 to 37, the sample was 82% female, with 92 females and 19 males (gender was not indicated for one participant).

Fifty-eight percent of this sample was born in Canada and English was the first language for 67% of participants. The predominant cultural identification reported by participants was Canadian/European ($n = 46$; 41%), followed by South/Southeast Asian ($n = 20$; 18%), African ($n = 15$; 13%), Middle Eastern ($n = 11$; 10%), Caribbean/West Indian ($n = 9$; 8%), East Asian ($n = 7$; 6%), Latin American ($n = 1$; 1%), and three participants did not indicate cultural identity. On a scale of $1 = \textit{Not at all}$ to $7 = \textit{Very much}$ for the degree to which participants identified with their primary cultural group reported above, the mean score for this sample was 5.4 ($SD = 1.38$) and the mode was 5. Fifty-eight percent of the current sample reported identifying with a secondary cultural group as well. Of these, Canadian/ European was the secondary cultural

group identified with most frequently ($n = 44$; 67%). The majority of participants reported growing up in a large city ($n = 65$; 58%) or a small city ($n = 32$; 29%). Finally, 73% of the current sample's relationship status was single, followed by 19% who reported being in a committed relationship but not married or common-law, and the remainder of the sample is distributed among married, common law, and separated status.

The final sample at Time 2 (the online questionnaire administered after a one day time-delay) consisted of 84 participants with a mean age of 20.0 ($SD = 3.4$) years; ages ranged from 17 to 37, the Time 2 sample was 85.7% female, with 72 females and 11 males (gender was not indicated for one participant). The demographic makeup of the sample at Time 2 was very similar to the sample at Time 1. Sixty-two percent of the sample at Time 2 was born in Canada, English was the first language for 72.6%, and the majority of the sample grew up in a large (58%) or small city (27%). The cultural background (e.g., primary and secondary cultural identification) of the sample at Time 2 was also very similar to what was reported above for the sample at Time 1.

Procedure

Participants arrived at the laboratory for the first of two laboratory sessions in small groups (2-12 participants). They received a short presentation orienting them to the study and then were provided with a written informed consent form (Appendix A). Upon providing consent, participants received a questionnaire package that included the Sociotropy-Autonomy Scale (SAS), the Beck Depression Inventory (BDI-II), and mood state was assessed using the Profile of Moods States (POMS). The order that these measures were presented was randomized. This set of key study measures was followed by a set of filler items (the purpose of these items was to ensure the aim of this study was not obvious and avoid demand characteristics

at subsequent testing sessions), which included items measuring the need for cognition, openness to experience, neuroticism, and conscientiousness that were not examined in the current study. Next, a demographics questionnaire and a mood-boosting exercise (participants rated a series of cartoon comics) were presented, in this order.

Approximately two weeks later, participants returned for the second laboratory session in small groups (2-7 participants) to complete the experiment portion of this study. Participants were seated individually at a computer, and instructed to follow the prompts displayed on the screen. Participants first completed the similar/different self-construal priming manipulation (Trafimow et al., 1991), which was labelled as an "imagination task." For this task, participants were randomly assigned to one of two experimental priming conditions: 1) independent self-construal prime or 2) interdependent self-construal prime. Participants were instructed to spend two minutes thinking about either what they have *in common* with or how they are *different from* friends and family. Immediately following the self-construal priming manipulation, participants were asked to provide a series of self-descriptions using the Twenty Statements Test (TST) and a contextualized version of the TST, to assess self-concept content using a spontaneous free-response format. Next, state mood was assessed using the Profile of Moods Scale (POMS), and then the Name Letter Test (NLT) was used to assess implicit self-esteem by asking participants to rate their preference for letters of the alphabet. This was followed by a manipulation check using a one-item sliding scale of independence-interdependence, asking participants to indicate what concerns they were focused on in that moment (personal achievement/autonomy or interpersonal concerns). Finally, participants were invited to register to continue with Part 2 of this study: an online experiential sampling questionnaire administered on their smartphones the next day. Participants registered for the online questionnaire with *SurveySignal*, an encrypted

online text messaging program increasingly used in experiential sampling research (Hofmann & Patel, 2013). Participants received a single SMS text on their cell phone with an online link to complete the questionnaire. A follow-up text was sent if participants did not open the link within two hours.

The Part 2 online questionnaire consisted of nearly the same measures completed during the second laboratory session (the experiment), except for three differences: first, during the laboratory experiment, participants were asked to provide a series of self-descriptions in response to the Twenty Statements Test, some were completely open-ended (i.e., no prompts provided) and others were contextualized, providing specific situations that participants could use to describe themselves in, such as at home or at school. In the online questionnaire, the contextualized format was not administered. Second, the one-item sliding scale of independence-interdependence (the experimental manipulation check) was not administered. Third, a new set of cartoon comics were presented for the mood-boosting exercise, prior to completing the study and being directed to an online debrief form (Appendix B).

Measures

A brief overview of the measures administered in the questionnaire and experiment portions of Study 2 is presented in Table 6 below. Except for the three minor changes outlined above, the online questionnaire administered at Time 2 consisted of the same measures as the package administered in the experiment session (Time 1), which is detailed below.

Table 6

List of Study 2 Measures Administered in the Questionnaire and Experiment Sessions

Measure	Description
Questionnaire Session	
i. Revised Sociotropy-Autonomy Scale (SAS)	Measure of trait sociotropy and autonomy that presents a series of statements and participants indicate extent to which each statement is self-descriptive
ii. Profile of Mood States (POMS)	Questionnaire of current mood states
iii. Beck Depression Inventory (BDI-II)	Measure of depression symptoms experienced in the last 2 weeks
iv. Filler items	Individual items measuring need for cognition, openness to experience, neuroticism, and conscientiousness required participants to indicate extent of agreement
v. Demographic Questionnaire	Age, gender, country born in, place grew up in, cultural identity, relationship status
vi. Mood-boosting Exercise	Series of cartoon comics that participants evaluated for humorousness, intended to provide a mood-boost prior to leaving testing session
Experiment Session	
i. Self-Construal Priming Manipulation (i.e., similar/different task)	Brief set of instructions asking participants to think <i>either</i> about what they have in common with <i>or</i> how they are different from family and friends
ii. Twenty Statements Test (TST)	A series of 20 blank statements beginning with, "I am." Participants fill in the blanks using a free-response format
iii. Contextualized Free-Response Questionnaire	A series of 20 blank statements beginning with, "I am" preceded by five different contexts (e.g., "At home" and "At school"). Participants fill in the blanks using a free-response format, providing up to 4 responses per context

iv. Profile of Mood States (POMS)	Questionnaire of current mood states
v. Name Letter Test (NLT)	Measure of implicit self-esteem. Participants rate their preference for each letter of the alphabet using a Likert scale
vi. One-item Sociotropy-Autonomy Manipulation Check	Manipulation check measure to assess participants' current focus on independence-related or interpersonal-related domains
vii. Mood-boosting Exercise	Series of cartoon comics that participants evaluated for humorousness, intended to provide a mood-boost prior to leaving study

Revised Sociotropy-Autonomy Scale

The questionnaire package administered during the first laboratory session included the 59-item revised SAS measure (Clark et al., 1995), containing one sociotropy and two autonomy subscales: independence and solitude.

Beck Depression Inventory

The 21-item BDI-II (Beck, Steer, & Brown, 1996) measure was included in the questionnaire package to assess symptoms of depression.

Profile of Moods States

The questionnaire package additionally included the 65-item POMS (McNair et al., 1971) mood questionnaire to assess state mood. The negative mood subscale of the POMS was used to assess negative mood. As outlined above, the POMS was administered on three separate occasions in this study: during the initial (baseline) questionnaire session, again in the second testing session immediately after participants generated statements in response to the Twenty

Statements Test during the laboratory experiment (at Time 1), and one final time during the online smartphone questionnaire at Time 2.

Demographics

Participants were asked to complete a brief demographic questionnaire using checklists and fill-in-the-blanks asking participants to indicate age, gender, cultural identity, English as first language, place where they grew up (e.g., large city, small town), and relationship status.

Mood-boosting Exercise

The last exercise participants completed prior to exiting the questionnaire portion of this study, and each subsequent study session, asked participants to rate a series of cartoon comics on a scale from 1 = *Not at all funny* to 7 = *Very funny*. A new set of comics was used at the end of each study session.

Self-Construal Priming Manipulation

For the experiment portion of this study, participants first completed the similar/different self-construal priming manipulation (Trafimow et al., 1991). Participants were randomly assigned to one of two priming conditions: 1) independent self-construal prime or 2) interdependent self-construal prime. In the independent prime condition, participants read the following instructions on the screen: *“For the next two minutes, you will not need to write anything. Please think of what makes you different from your family and friends. What do you expect yourself to do?”* In the interdependent prime condition participants read the same instructions on the screen, except they were asked to, *“Please think of what you have in common with your family and friends. What do they expect you to do?”* Study prompts were programmed to count down from two minutes before moving to the next screen, to ensure participants did not move to the next set of instructions before the two minutes was up. The Trafimow et al. (1991)

procedure is one of the most commonly used self-construal primes (Cross et al., 2011), and a meta-analysis by Oyserman and Lee (2008) reported that compared to several other self-concept-related priming tasks, the strongest effects ($d = .44$, $n = 4$) were found for this task.

Twenty Statements Test

Participants completed the Twenty Statements Test (TST; Kuhn & McPartland, 1954), which is a spontaneous (open-ended) self-report measure commonly used to assess self-concept content (Cross et al., 2011). The TST asks participants to respond to 20 free-response format items beginning with the statement, “I am: ____.” Although the open-ended and qualitative format of the TST is difficult to evaluate using traditional psychometric assessment (Grace & Cramer, 2003), available evidence suggests it is reasonably valid and reliable (Grace & Cramer, 2003; Kuhn & McPartland, 1954). Responses to the TST were content analyzed according to the categorizing system developed by Trafimow et al. (1991) described earlier, who proposed *allocentric* and *idiocentric* self-concept content as two distinct types of cognitions relating to oneself. These are defined in more detail below. Statements were coded for allocentric and idiocentric content, and as either positive, negative, or ambiguous in valence ('ambiguous' statements were not examined in the current dissertation). Trafimow et al. (1991) also investigated *collective* (group) self-concept content. This content category was not directly relevant to the theory of sociotropy-autonomy, but will be explored in more detail in the manipulation check of the Results section of this chapter. The coding of TST responses was conducted by the author and one independent coder, both blind to the questionnaire data. There was a high degree of inter-rater agreement regarding self-descriptive content, Cohen's $\kappa = .939$, $T = 42.02$, $p = .000$, and valence Cohen's $\kappa = .794$, $T = 21.695$, $p = .000$.

Content Analysis: Allocentric and Idiocentric Themes. Allocentric statements were defined a priori as referring to "a quality of interdependence, friendship, responsiveness to others, and sensitivity to the viewpoint of others" (Trafimow et al., 1991, p. 650). Some sample items are, "I am friendly," "I am loving," "I am a good listener." Idiocentric statements were defined a priori as referring to "personal qualities, attitudes, beliefs, or behaviors that do not relate to others" (Trafimow et al., 1991, p. 650). Some sample items are, "I am intelligent," "I am funny," "I am hardworking."

Contextualized Free-Response Questionnaire

This measure was adapted by Cousins (1989) from the TST originally developed by Kuhn and McPartland (1954). This questionnaire presents a contextualized format of the TST, asking participants to describe themselves in specific situations, including at home, at school, with close friends, at a party, in class. Responses on the contextualized free-response questionnaire are not directly relevant to the current research hypotheses, and so will not be discussed in the current dissertation.

Name Letter Test

The Name Letter Test (NLT; Nuttin, 1985) is an implicit measure of self-esteem. For this task, letters of the alphabet are randomly presented, and participants rate how much they prefer each letter using a Likert scale. Preference ratings for each letter are compared to ratings for letters contained in the participant's name, according to a procedure detailed by Kitayama and Karasawa (1997). In the current study, only participants' initials were recorded and examined in order to maintain participant anonymity. To do this, liking scores for the letters of one's name initials relative to other letters of the alphabet are determined by finding the mean liking score for each letter using mean scores from those subjects whose names do not contain

that letter (to control for relative desirability of the letter). This mean liking score is then subtracted from the liking score of respective letters contained in participants' initials to find a relative mean liking score for one's own name letters. For example, for subjects with initials A.B: take their personal liking score for 'A' and subtract the mean liking score for 'A' including only those whose initials do not contain the letter A. Do the same for letter 'B.' The two relative scores are summed and divided by two to find mean liking score for one's name initials. The Name Letter Test a frequently used measure of implicit attitudes about the self showing good reliability and convergent validity (Wegener, 2015).

One-item Sociotropy-Autonomy Manipulation Check

The final measure administered in the experiment portion of this study was a manipulation check of participants' current concerns. Based on theory and research using the SAS, this single-item measure was written for the purpose of this study as a way to assess participants' current focus on either sociotropic or autonomous thoughts, feelings, and behaviours. Participants indicated on a scale from 1 = *entirely interpersonal relationships* to 10 = *entirely personal achievement/autonomy* what concerns they were focused on, right then in that moment.

Analysis plan. Study 2 descriptive statistics and correlations are presented first. This is followed by results from manipulation checks and results from regression models testing the effect of the interaction between the personality variable (SAS sociotropy, independence, or solitude) and experimental condition (independent self-construal prime vs. interdependent self-construal prime) on the dependent variable (allocentric/idiocentric/positive/negative TST statements, negative mood, and NLT implicit self-esteem; see Table 7 below). Regression techniques were applied first to a content analysis of TST statements, testing the effect of

condition at different levels of the personality variable (SAS sociotropy, independence, or solitude) on the frequency with which different kinds of TST statements (allocentric, idiocentric, positive, negative) were generated. Then regression techniques were used to test the effect of condition at different levels of the personality variable on (continuous) mean negative mood and implicit self-esteem dependent variables. The categorical count dependent variables (i.e., TST statements) were created by tallying how many allocentric or idiocentric statements each participant made, and how many of these statements were positive or negative. The negative mood and NLT implicit self-esteem dependent variables were created by calculating mean scores for each of these continuous measures. Results of regression analyses are presented for each dependent variable at Time 1 and Time 2. At Time 2, results presented in-text focus on significant effects, however, all results of regression analyses are provided in a series of tables (see 8a to 11c), one for each of the sociotropy, independence, and solitude personality variables. To set up regression models, the experimental condition was dummy coded ("1", "2") and entered as the between-subjects factor in a series of regression models that included one of the three personality variables (SAS sociotropy, independence, or solitude). A two-way interaction term (personality variable x condition) was created in order to examine the effect of condition at different levels of the personality variable, and entered as a covariate. Each model consisted of: $Y = \text{intercept} + \text{personality variable} + \text{condition} + \text{personality variable} \times \text{condition}$. Generalized linear models (GLIM) were used to examine each of the 4 count dependent variables (i.e., allocentric, idiocentric, positive, negative TST statements), as well as the continuous mean negative mood and continuous mean NLT implicit self-esteem dependent variables. The GLIM is a generalization of multiple linear regression that offers a robust technique for handling non-normal data, such as count outcomes that follow an approximately Poisson distribution (Ghisletta

& Spini, 2004; McCue et al., 2008). The GLIM relaxes assumptions about the form of the distribution to accommodate many types of response variables, including normal and non-normally distributed outcomes (Ghisletta & Spini, 2004; McCue et al., 2008). The GLIM was preferred to multiple linear regression for continuous data in the current study (i.e., negative mood and implicit self-esteem scores) because it additionally offers a unique factor structure that builds the between-subjects factor (i.e., experimental condition) into the models. The type of GLIM conducted was based on the characteristics of the dependent variable (e.g., count or continuous). To analyze count dependent variables (number of allocentric, idiocentric, positive, negative TST statements), Poisson regression models for count data were used. Normal regression GLIM with identity link (normal regression model) was conducted to examine continuous dependent variables (negative mood and implicit self-esteem). To control for the effect of pre-existing depression symptoms on negative mood outcomes, an additional regression model was run to include (baseline) BDI-II depression symptoms assessed at the initial questionnaire session. Results from regression analyses are reported for one-way tests of significance ($\alpha = .05$); all other tests are two-tailed.

Table 7

Overview of Study 2 Variables

Independent variables	Dependent variables (Time 1 and Time 2)
Sociotropy	Allocentric statements
Independence	Idiocentric statements
Solitude	Positive statements
Experimental condition	Negative statements
	Negative mood
	Implicit self-evaluation

Results

General Sample Characteristics

Descriptive statistics and correlations among personality variables (SAS sociotropy, independence, solitude), negative mood, and depression symptoms assessed at the initial questionnaire session are provided in Appendix E. Means and standard deviations for study scales are consistent with earlier samples reported in this dissertation, and comparable with previous studies using similar undergraduate samples (e.g., Clark et al., 1995; Dozois et al., 1998; Rasmussen & Jeffrey, 1995). Study scales were reliable (α was .70 to .97) and bivariate correlations among measures showed good convergent and discriminant validity in the current sample. For example, as expected, sociotropy was correlated with depression symptoms assessed (at initial questionnaire session) using the BDI-II ($r = .35, p = .000$), independence was not correlated with depression symptoms ($r = -.066, p = .50$), and depression symptoms were correlated with negative mood ($r = .70, p = .000$). Importantly, sociotropy was also correlated with negative mood assessed at the initial questionnaire session ($r = .33, p = .000$), replicating the finding in Study 1 of the current dissertation. The mean BDI-II depression score for the current sample ($M = 16.60, SD = 10.46$) indicates that on average, participants in this study would be considered dysphoric (Dozois et al., 1998). Of the 112 participants in this study, 41.7% were in the non-depressed range (scored 0-12), 18.3% were in the dysphoric range (scored 13-19), and 40% were in the dysphoric-depressed range (scored 20-63), with the highest score in this sample being 44. The mean negative mood score for the current sample ($M = 1.01, SD = .80$) indicates that on average, participants in this study reported “a little” negative mood. Independent samples t-tests indicated there were no significant differences in mean SAS personality scores, depression symptoms, or negative mood between participants who were

assigned to the independent or interdependent self-construal experimental priming conditions (see summary table in Appendix F).

Manipulation Checks

Two experimental manipulation checks were performed to examine the extent to which the experimental manipulation had the intended effect of priming independent/interdependent self-construal. First, responses to the TST for the general sample were examined according to previous research (e.g., Gardner et al., 1999, Study 1), which compared the mean number of statements referring to group and/or social role statements between experimental conditions. As expected, Independent-samples t-tests showed there was a significant mean difference in the number of statements describing group and/or social roles generated between independent and interdependent conditions ($M = 9.82$, $SD = 3.79$ and $M = 11.20$, $SD = 4.50$, respectively; $t(103.8) = -1.74$, $p = .043$, 2-tailed). This result suggests that the self-construal manipulation was successful.

The second manipulation check was administered at the end of the laboratory experiment, asking participants to indicate on a scale from 1 = *entirely interpersonal* to 10 = *entirely personal achievement-autonomy* what concerns they were focused on “right now at this moment.” Responses on this 1-item scale were normally distributed in both conditions. Contrary to expectations, the mean difference between conditions was not significant. On average participants reported they were focused just slightly more on personal-achievement content in both conditions at the end of the laboratory experiment ($M = 6.316$, $SD = 2.62$ and $M = 6.39$, $SD = 2.94$, $t(104.2) = -.150$, $p = .440$).

Regression Analyses at Time 1 ("T1")

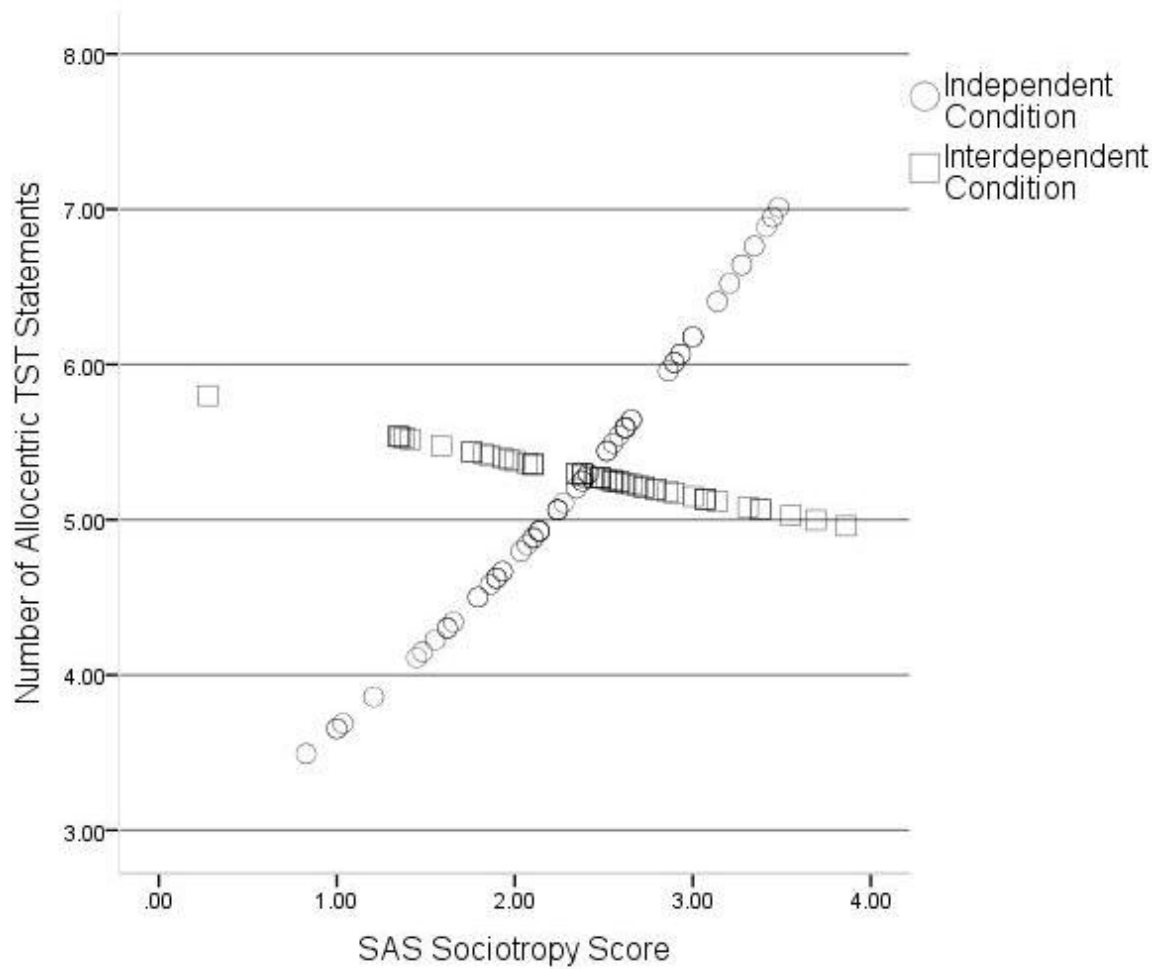
Tables 8a to 9c provide the results of the Poisson regression models for count data examining the frequency with which different kinds of statements (allocentric, idiocentric, positive, negative) were generated in the experimental conditions at different levels of the personality variable (SAS sociotropy, independence, or solitude).

TST Content

The hypothesized interaction between sociotropy and experimental condition predicting the frequency of allocentric statements was significant ($\chi^2 = 5.87(1)$, $p = .008$, Pseudo $R^2 = 0.19$), but the direction of the associations was unexpected. The figures provided below depict significant interactions using the natural scale (i.e., unit count) of the dependent variables. As we can see in Figure 3a, as sociotropy increased, participants in the independent condition generated more allocentric statements and those in the interdependent condition generated *fewer* allocentric statements. This was not anticipated. With a one unit increase in sociotropy from 2.0 to 3.0, the number of allocentric statements made in the independent condition increased by 1.44 statements, whereas the number of allocentric statements made in the interdependent condition decreased by 0.22 statements (Figure 3a). Contrary to predictions, the hypothesized interaction between sociotropy and condition predicting idiocentric statements was not statistically significant ($\chi^2 = 1.67(1)$, $p = .098$).

Figure 3a

Simple Slopes of Sociotropy by Condition on Number of Allocentric TST Statements



The results did not support the first hypothesis with respect to independence; there were no significant interactions between independence and condition predicting the frequencies of allocentric or idiocentric statements ($\chi^2 = .013(1), p = .455$; $\chi^2 = .499(1), p = .240$, respectively). The hypothesized interaction between solitude and condition predicting allocentric statements is marginally significant ($\chi^2 = 2.51(1), p = .057$, Pseudo $R^2 = 0.234$), but showed a complementary though unanticipated pattern; those scoring higher on solitude generated more allocentric statements in the independent condition than in the interdependent condition (see Figure 3b). As can be seen in Figure 3b, with a one-unit increase in solitude from 1.0 to 2.0, the number of allocentric statements made in the interdependent condition decreased by 1.88, whereas in the independent condition, allocentric statements only decreased by 0.58 statements. Second, the interaction between solitude and condition was significant so that those scoring higher on solitude generated more idiocentric statements in the interdependent condition than in the independent condition ($\chi^2 = 4.73(1), p = .015$; Pseudo $R^2 = 0.24$). As can be seen in Figure 3c, with a one unit increase in solitude from 1.0 to 2.0, the number of idiocentric statements made in the interdependent condition increased by 2.18.

Figure 3b

Simple Slopes of Solitude by Condition on Number of Allocentric TST Statements

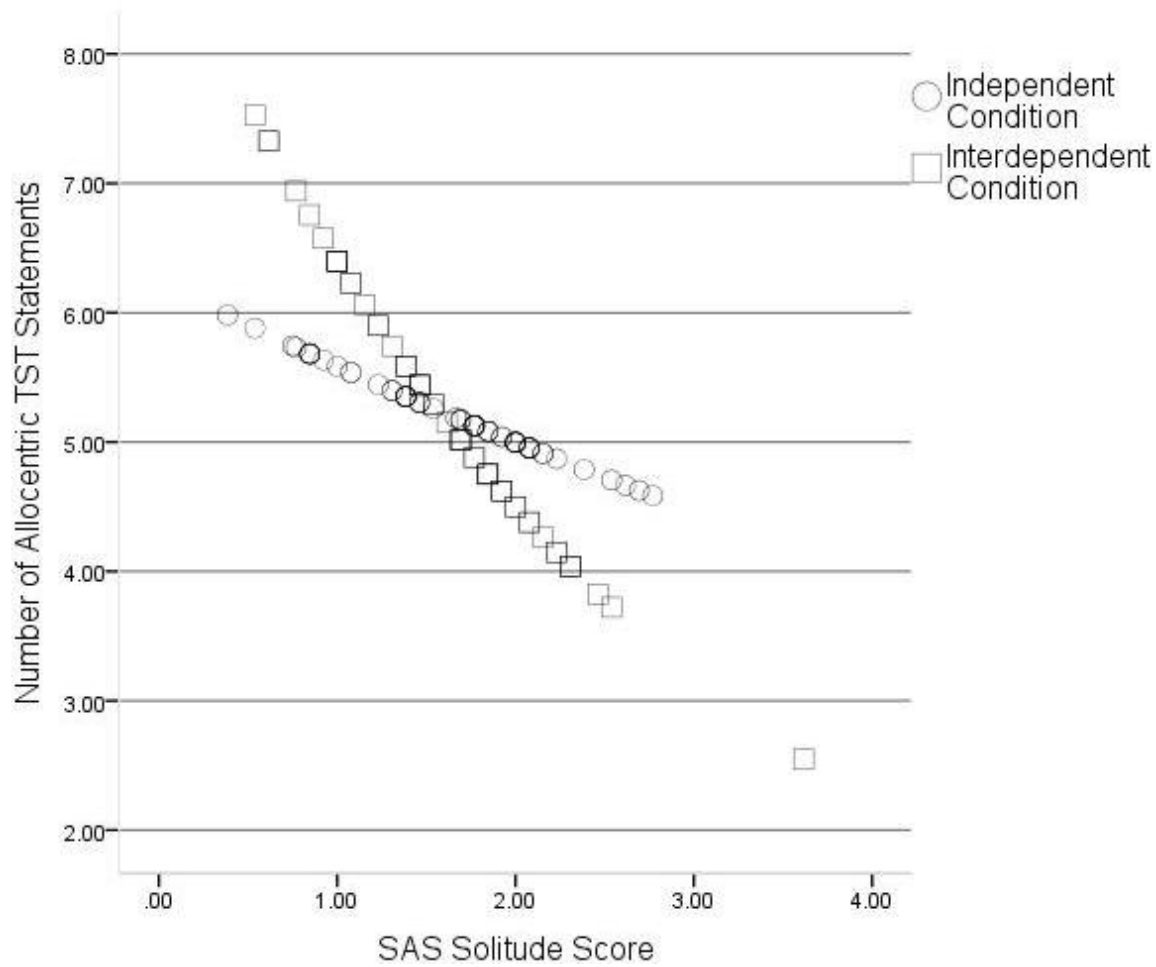
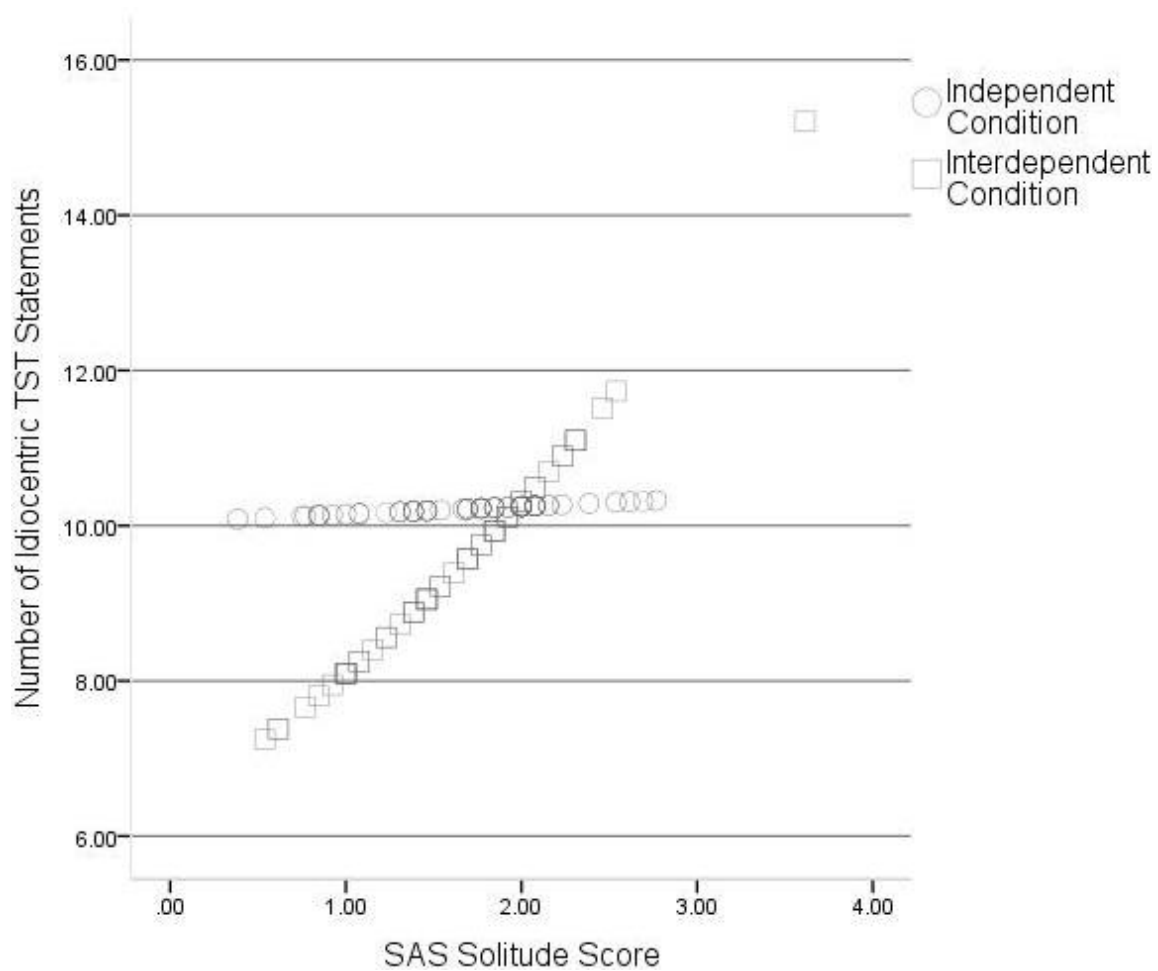


Figure 3c

Simple Slopes of Solitude by Condition on Number of Idiocentric TST Statements



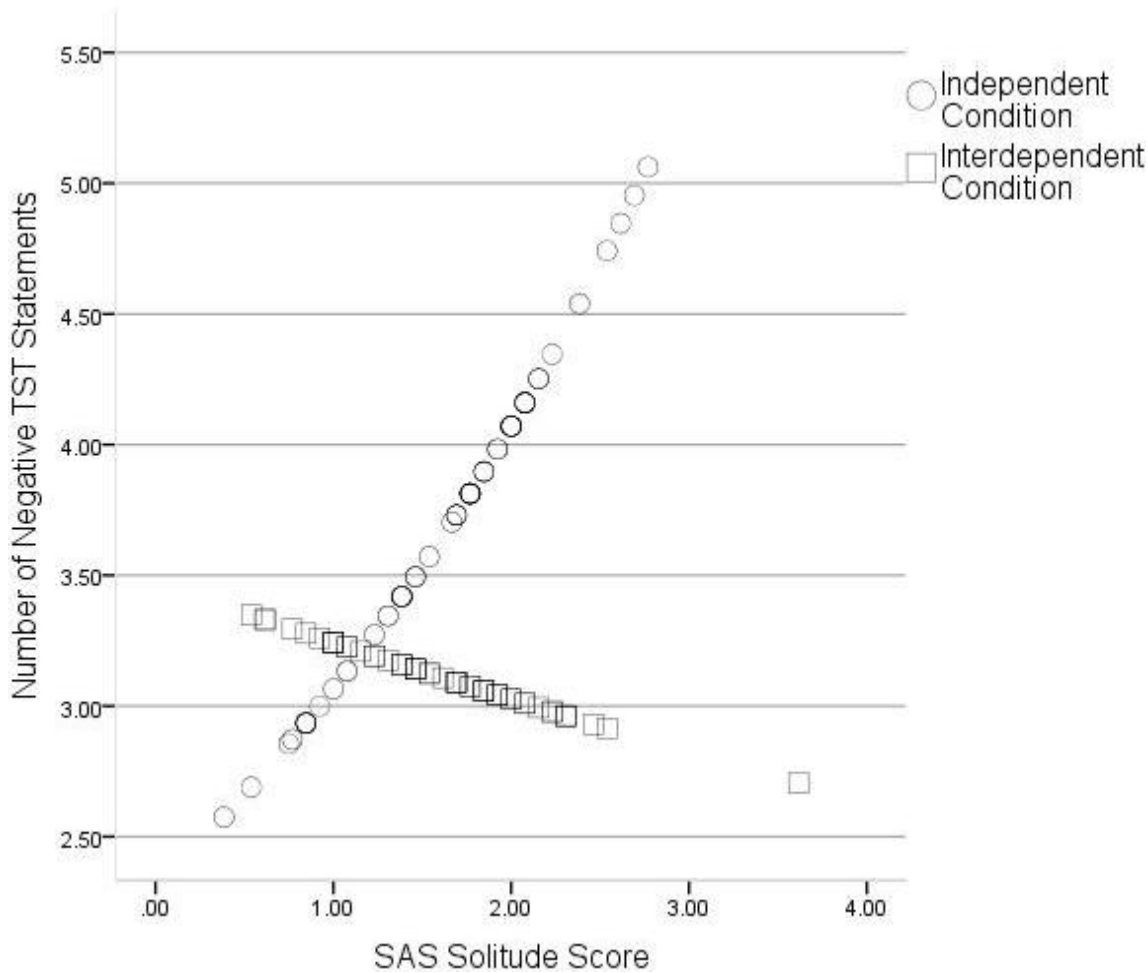
TST Valence

The results did not support the second hypothesis that sociotropy would interact with experimental condition to predict the frequencies of positive or negative statements ($\chi^2 = 0.662(1)$, $p = .21$; $\chi^2 = .53(1)$, $p = .235$, respectively).¹ Independence did not interact with condition to predict the frequency of positive or negative statements either ($\chi^2 = .002(1)$, $p = .482$; $\chi^2 = .570(1)$, $p = .225$, respectively). As hypothesized, there was a significant interaction between solitude and condition predicting the frequency of negative statements ($\chi^2 = 3.54(1)$, $p = .030$, Pseudo $R^2 = 0.17$), so that as solitude increased, negative statements increased in the independent condition while negative statements decreased in the interdependent condition (Figure 4). With a one-unit increase in solitude from 1.0 to 2.0, the number of negative statements increased by 1.02 in the independent condition, whereas in the interdependent condition, negative statements decreased by 0.20 (see Figure 4). The interaction between solitude and condition predicting the frequency of positive statements was not significant ($\chi^2 = 1.05(1)$, $p = .153$).

¹ Standardized Pearson Residuals for all Poisson regression models for Negative TST counts (Time 1 and 2) were non-normally (Poisson) distributed; negative binomial and normal models were also run but did not improve the normality of standardized residuals.

Figure 4

Simple Slopes of Solitude by Condition on Number of Negative TST Statements



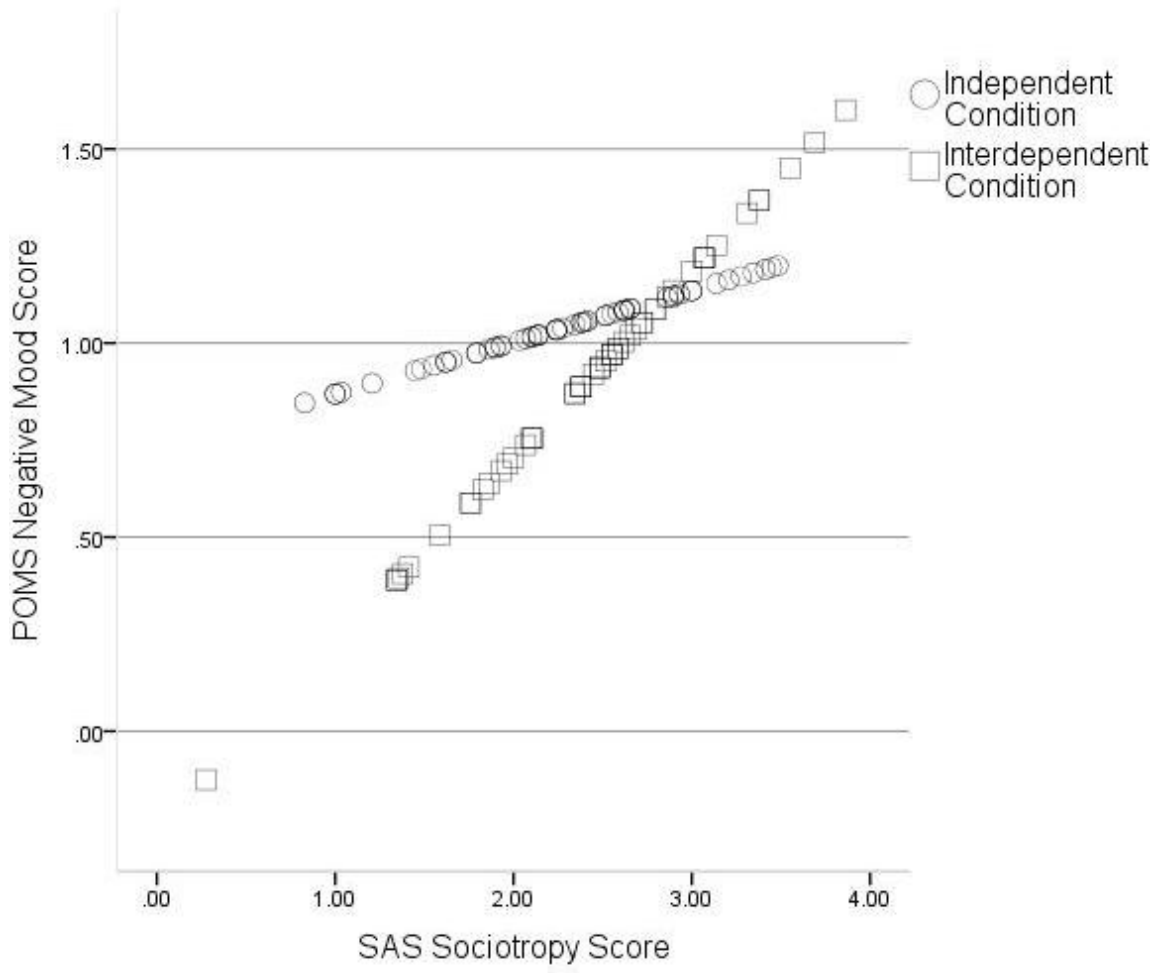
Mood

An Independent samples t-test was conducted first in order to check for an overall mean difference in negative mood between the two conditions. As expected, there was no significant difference between independent ($M = 1.04, SD = .759$) and interdependent conditions ($M = .88, SD = .742$); $t(108) = 1.09, p = .28$. The results of normal regression models examining the hypothesized interaction between sociotropy and condition predicting negative mood are provided in Table 10a, Model 1. The results also supported the third hypothesis with regard to

sociotropy. As hypothesized, there was a significant interaction between sociotropy and condition ($\chi^2 = 2.83(1)$, $p = .046$, Pseudo $R^2 = 0.32$) so that those scoring high on sociotropy reported less negative mood in the independent condition than in the interdependent condition (Figure 5). Specifically, from Figure 5 we can see that a one unit increase in sociotropy from 3.0 to 4.0 in the interdependent condition resulted in a mean increase of .49 on the POMS negative mood subscale. This a notable increase considering the maximum POMS negative mood score in this sample was 3.52 and more than 50% of mean scores were .75 or less (75% of mean scores were 1.31 or less). As can be seen in Table 10a, Model 2, the interaction between sociotropy and condition is still significant after controlling for pre-existing BDI depression symptoms ($\chi^2 = 5.50(1)$, $p = .010$, Pseudo $R^2 = 0.52$). AIC and BIC values provided in Table 10a suggest that the model with sociotropy and condition as the only predictors may be a better fit than a model that includes the BDI-II. Results did not support the third hypothesis with regard to independence and solitude; there were no significant interactions between independence or solitude and condition predicting negative mood ($\chi^2 = .124(1)$, $p = .363$; $\chi^2 = .10(1)$, $p = .38$, respectively, see Tables 10c and 10d).

Figure 5

Simple Slopes of Sociotropy by Condition on Mean Negative Mood (POMS)



Implicit Self-Esteem

Tables 11a to 11c provide the results of the normal regression models examining the hypothesized interactions between personality variables (SAS sociotropy, independence, solitude) and condition predicting mean NLT implicit self-esteem scores. The results did not support the fourth hypothesis; neither sociotropy, independence, nor solitude significantly interacted with condition to predict NLT implicit self-esteem ($\chi^2 = .004(1)$, $p = .474$; $\chi^2 = 1.10(1)$, $p = .147$; $\chi^2 = .270(1)$, $p = .302$, respectively) at Time 1.

Regression Analyses at Time 2 ("T2")

This section focuses on significant effects found at Time 2; all results of regression analyses at Time 2 ("T2") are provided in Tables 8a-11c below. The results partly supported the hypothesis that the interaction between personality variables and condition would still be significant when measured outside the laboratory after a one day time-delay (Time 2). As hypothesized, the interaction between sociotropy and condition predicting allocentric statements at Time 1 was still significant at Time 2 ($\chi^2 = 8.34(1)$, $p = .002$, Pseudo $R^2 = 0.265$), and follows the same pattern of results: as sociotropy scores increased, allocentric statements increased in the independent condition and decreased in the interdependent condition (see Figure 6a). From Figure 6a we can see that with a one unit increase in sociotropy from 2.0 to 3.0, the number of allocentric statements decreased by 1.05 in the interdependent condition, whereas they increased by 1.05 in the independent condition. There was also a significant interaction between sociotropy and condition predicting idiocentric statements at Time 2 ($\chi^2 = 3.05(1)$, $p = .041$, Pseudo $R^2 = 0.27$). Mirroring the (non-significant) Time 1 trend, from Figure 6b we can see that as sociotropy increased, those in the independent condition generated fewer idiocentric statements while those in the interdependent condition generated more idiocentric statements. For example, with a one unit increase in sociotropy from 2.0 to 3.0, the number of idiocentric statements decreased by .93 in the independent condition and increased by 1.12 in the interdependent condition. Though results suggest the direction of associations run opposite to hypotheses, effect sizes reported above indicate the sociotropy x condition models explain allocentric and idiocentric statements reasonably well.

Figure 6a

Simple Slopes of Sociotropy by Condition on Number of Allocentric TST Statements at Time 2

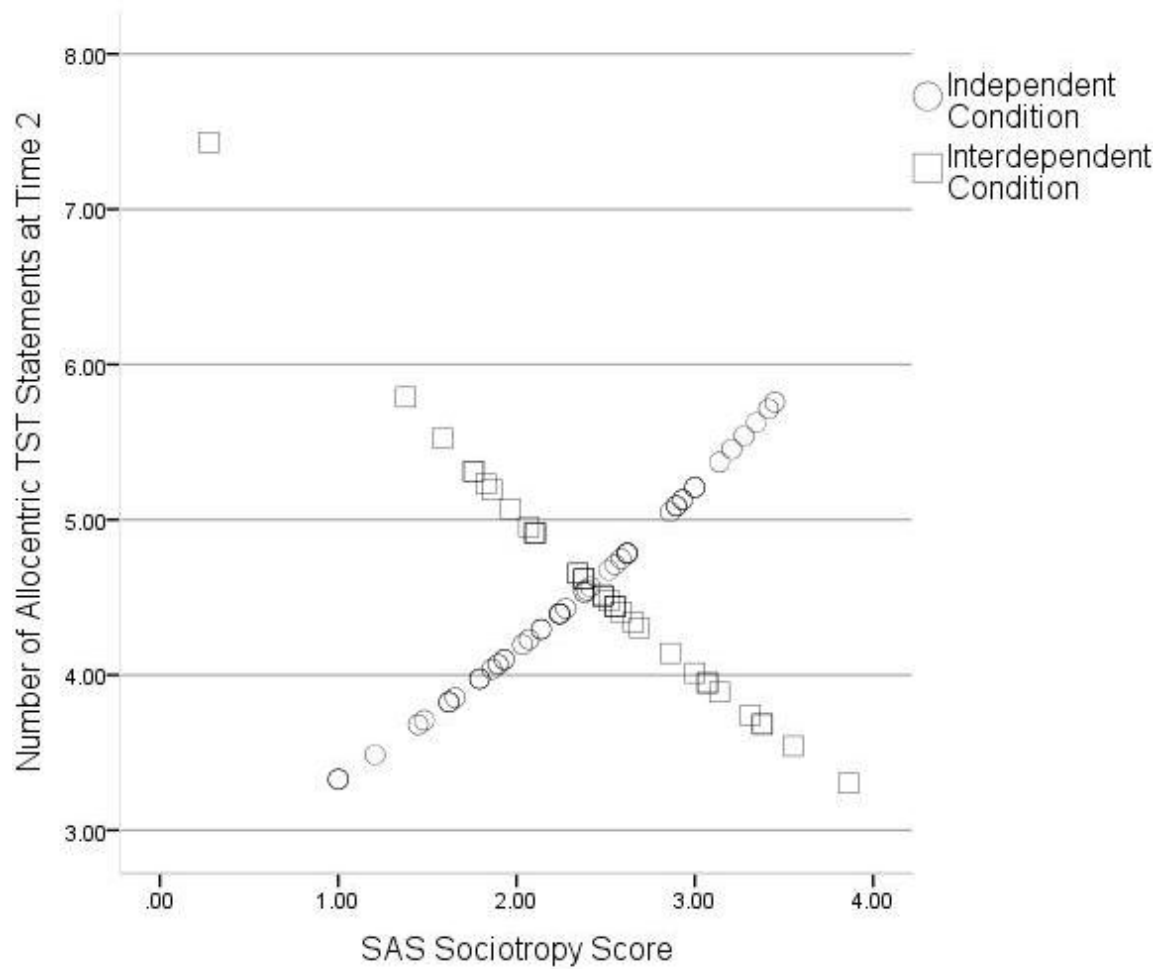
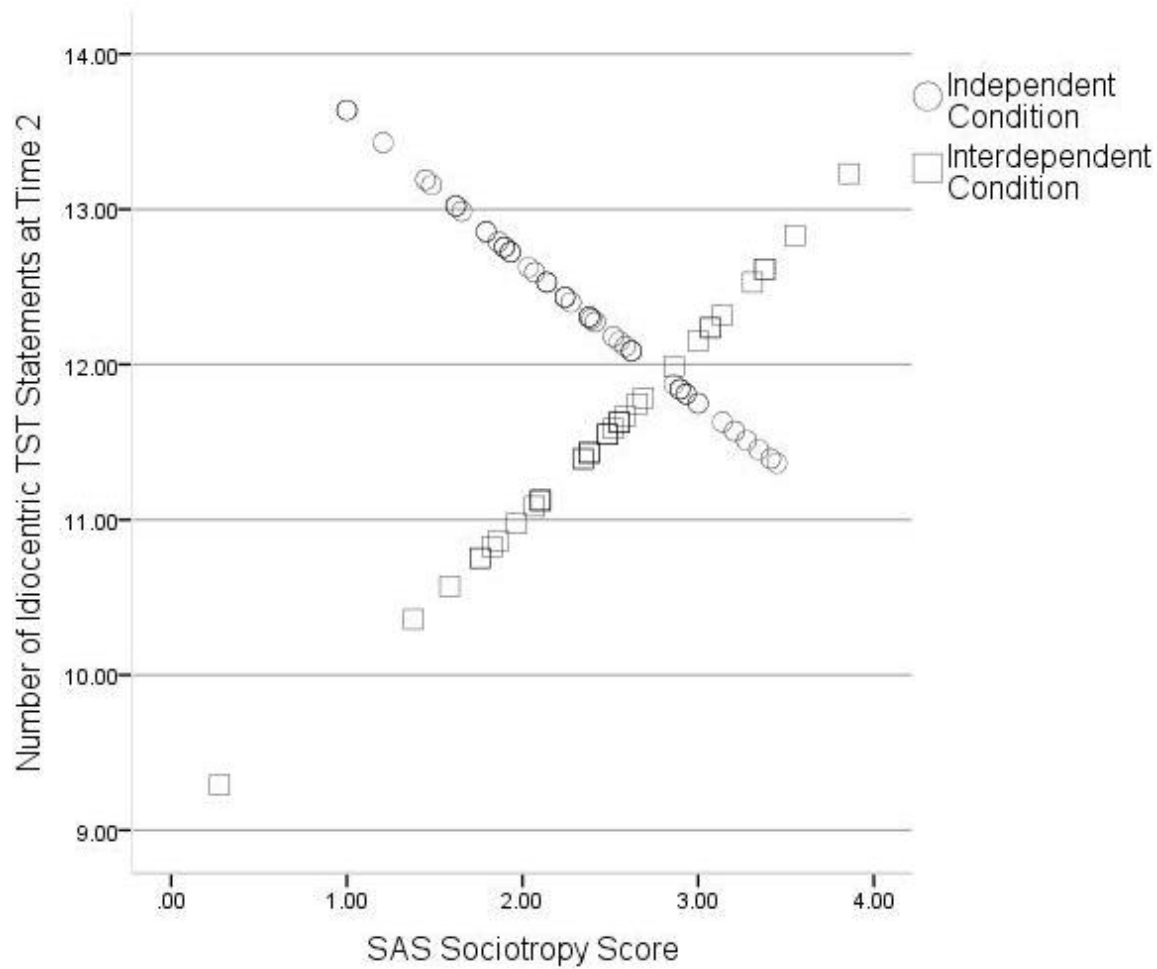


Figure 6b

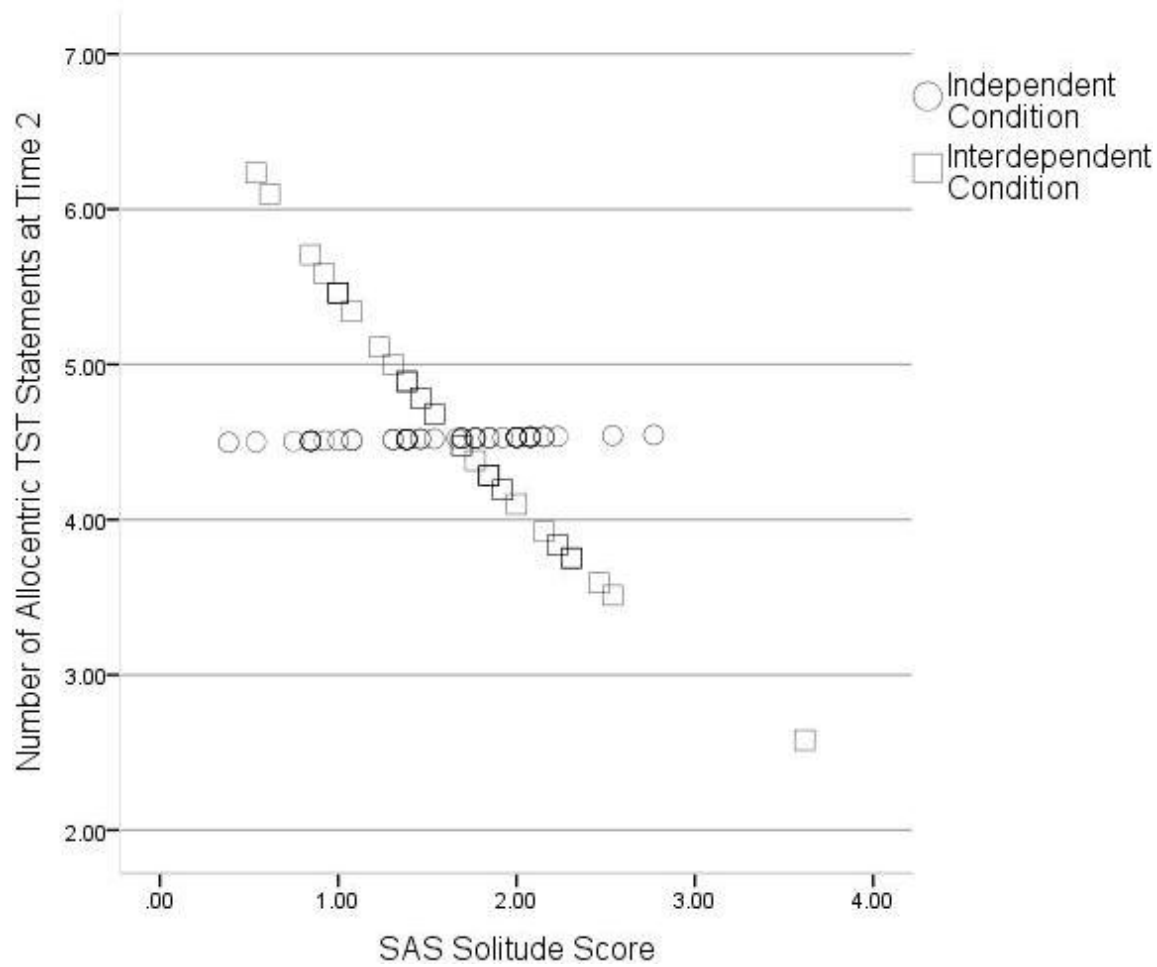
Simple Slopes of Sociotropy by Condition on Number of Idiocentric TST Statements at Time 2



The hypothesized interaction between solitude and condition predicting allocentric statements at Time 2 was marginally significant ($\chi^2 = 2.48(1), p = .058$, Pseudo $R^2 = 0.27$), and the pattern was similar to what was found at Time 1. In particular, as solitude increased, allocentric statements decreased in the interdependent condition and increased slightly in the independent condition (see Figure 6c). Of note, with a one unit increase in solitude from 1.0 to 2.0, the number of allocentric statements decreased by 1.4 statements in the interdependent condition. This finding for solitude thus mirrors the general pattern found for sociotropy with respect to content of TST statements.

Figure 6c

Simple Slopes of Solitude by Condition on Number of Allocentric TST Statements at Time 2



The interaction between sociotropy and condition predicting mood at Time 1 is no longer significant at Time 2 ($\chi^2 = .122(1)$, $p = .363$; see Table 10b). Finally, the interaction between sociotropy and condition predicting NLT implicit self-esteem at Time 2 was not significant ($\chi^2 = 2.33(1)$, $p = .064$), but there were significant main effects for both sociotropy ($\chi^2 = 4.06(1)$, $p = .023$) and condition ($\chi^2 = 4.01(1)$, $p = .022$), indicating that higher sociotropy scores and the interdependent self-construal prime were each associated with higher NLT implicit self-esteem. Interestingly, there was a marginally significant interaction between independence and condition ($\chi^2 = 2.65(1)$, $p = .052$, Pseudo $R^2 = 0.20$), and a significant interaction between solitude and condition predicting NLT implicit self-esteem at Time 2 ($\chi^2 = 3.00(1)$, $p = .042$, Pseudo $R^2 = 0.26$). As can be seen from Figure 7a, as independence increases, NLT implicit self-esteem decreased in the independent condition and increased in the interdependent condition. Figure 7b illustrates a similar pattern for the interaction between solitude and condition predicting NLT implicit self-esteem.

Figure 7a

Simple Slopes of Independence by Condition on NLT Implicit Self-Esteem at Time 2

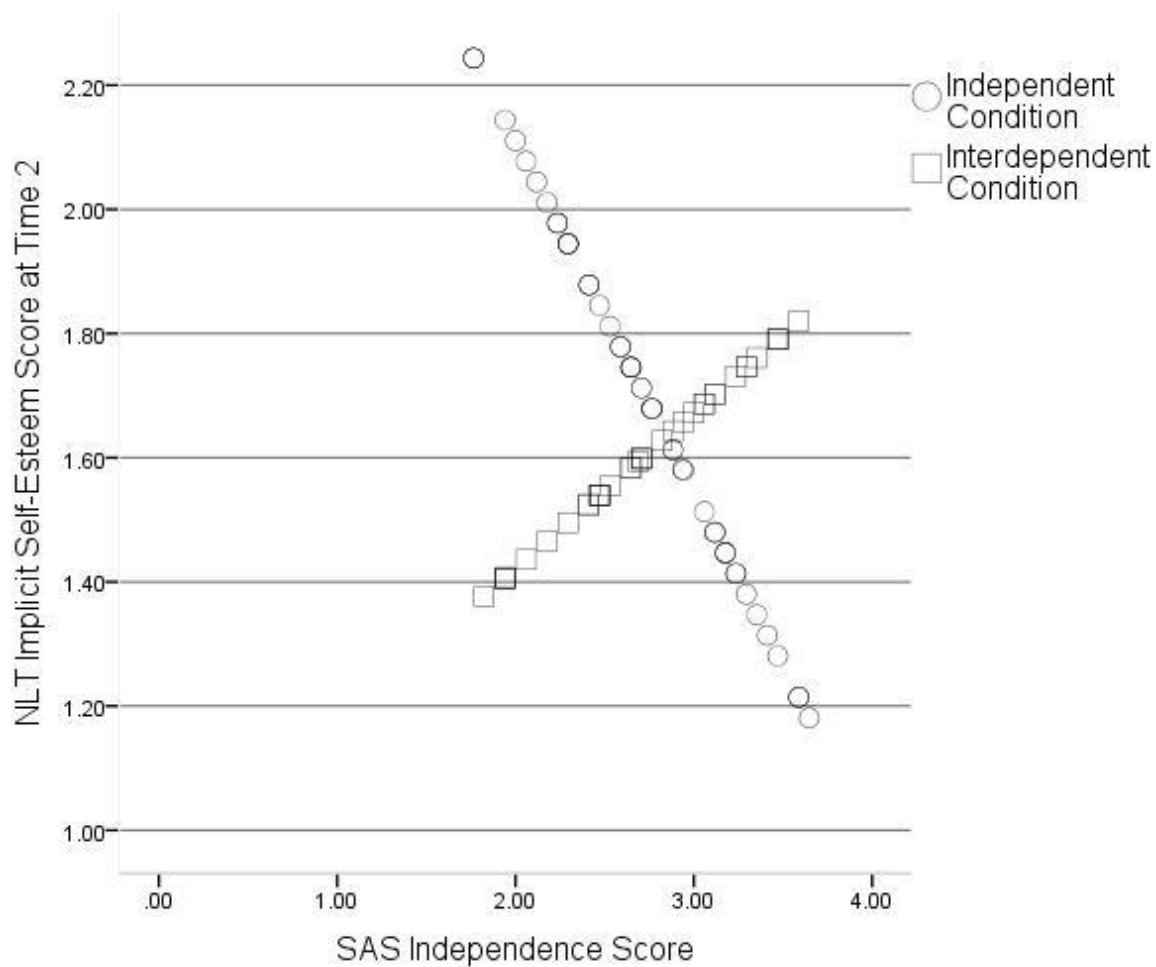


Figure 7b

Simple Slopes of Solitude by Condition on NLT Implicit Self-Esteem at Time 2

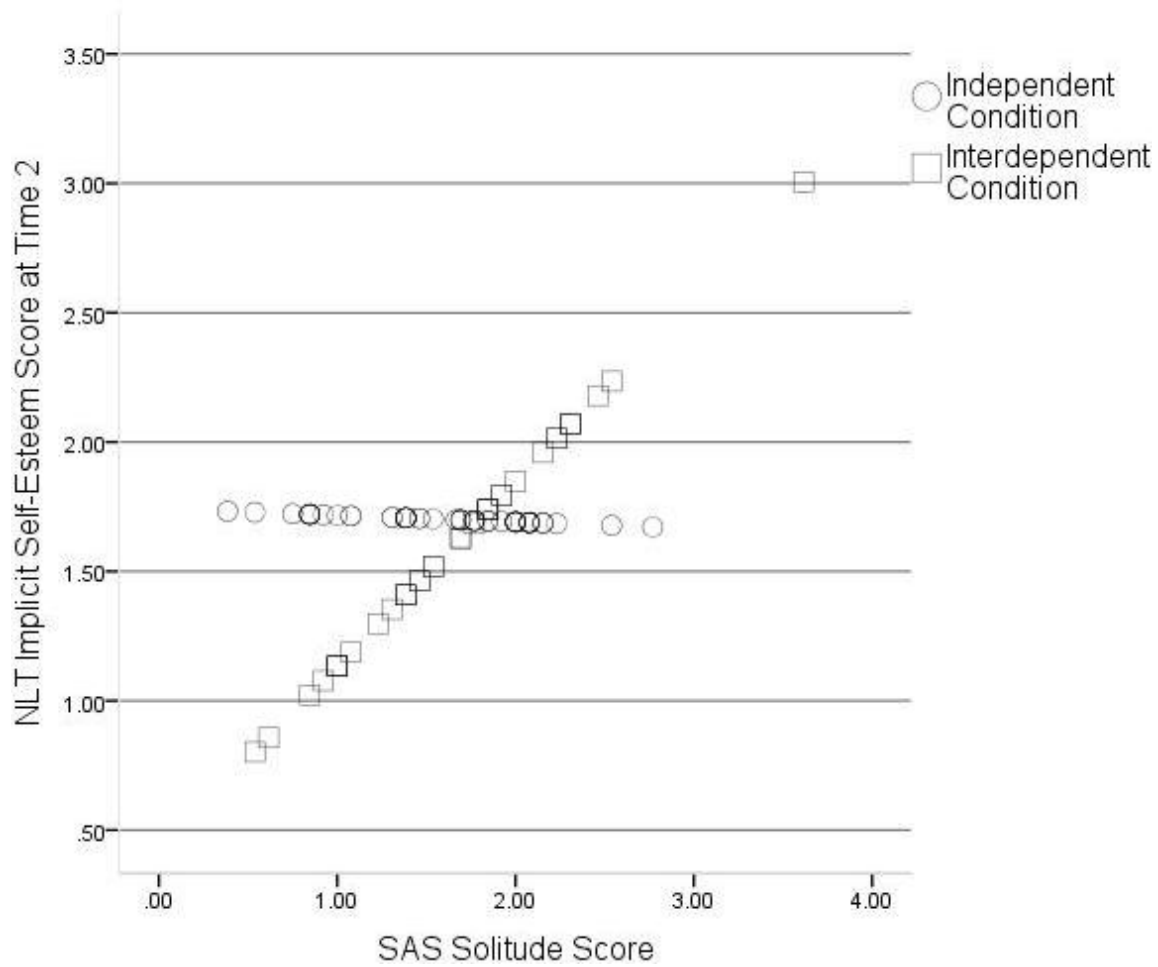


Table 8a

Results from GLIMs with Sociotropy by Condition Predicting Number of Allocentric and Idiocentric TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
T1						
Allocentric TST	Sociotropy	-.44	.087	3.0	1	.042
	Condition	-.736	.32	5.46	1	.010
	Condition x Sociotropy	.306	.13	5.87	1	.008
Idiocentric TST	Sociotropy	-.053	.065	6.06	1	.007
	Condition	.334	.219	2.33	1	.064
	Condition x Sociotropy	-.117	.091	1.67	1	.098
T2						
Allocentric TST	Sociotropy	-.226	.109	.000	1	.495
	Condition	-1.09	.385	8.00	1	.003
	Condition x Sociotropy	.450	.156	8.34	1	.002
Idiocentric TST	Sociotropy	.099	.073	.059	1	.404
	Condition	.485	.247	3.86	1	.025
	Condition x Sociotropy	-.173	.099	3.05	1	.041

Table 8b

Results from GLIMs with Independence by Condition Predicting Number of Allocentric and Idiocentric TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
T1						
Allocentric TST	Independence	-.157	.109	3.38	1	.033
	Condition	-.063	.448	.02	1	.444
	Condition x Independence	.018	.161	.013	1	.455
Idiocentric TST	Independence	.18	.083	5.25	1	.011
	Condition	.313	.338	.857	1	.177
	Condition x Independence	-.084	.119	.499	1	.240
T2						
Allocentric TST	Independence	-.225	.154	.638	1	.213
	Condition	-.782	.569	1.89	1	.085
	Condition x Independence	.284	.208	1.87	1	.086
Idiocentric TST	Independence	.138	.098	1.19	1	.138
	Condition	.437	.359	1.48	1	.112
	Condition x Independence	-.134	.129	1.09	1	.149

Table 8c

Results from GLIMs with Solitude by Condition Predicting Number of Allocentric and Idiocentric TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
T1						
Allocentric TST	Solitude	-.352	.109	9.30	1	.001
	Condition	-.377	.25	2.28	1	.066
	Condition x Solitude	.241	.152	2.51	1	.057
Idiocentric TST	Solitude	.241	.074	5.57	1	.009
	Condition	.457	.187	5.96	1	.008
	Condition x Solitude	-.231	.106	4.73	1	.015
T2						
Allocentric TST	Solitude	-.287	.131	2.33	1	.064
	Condition	-.483	.308	2.45	1	.059
	Condition x Solitude	.291	.185	2.48	1	.058
Idiocentric TST	Solitude	.237	.075	8.29	1	.002
	Condition	.349	.194	3.25	1	.036
	Condition x Solitude	-1.6	.109	2.14	1	.072

Table 9a

Results from GLIMs with Sociotropy by Condition Predicting Number of Positive and Negative TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
T1						
Positive TST	Sociotropy	-.001	.052	0.61	1	.218
	Condition	-.177	.185	0.92	1	.17
	Condition x Sociotropy	.061	.075	0.662	1	.21
Negative TST	Sociotropy	.011	.115	0.34	1	.279
	Condition	.435	.38	1.31	1	.126
	Condition x Sociotropy	-.112	.156	0.53	1	.235
T2						
Positive TST	Sociotropy	.019	.063	.030	1	.431
	Condition	-.051	.221	.053	1	.410
	Condition x Sociotropy	-.022	.09	.060	1	.403
Negative TST	Sociotropy	.157	.133	3.13	1	.039
	Condition	.360	.436	.682	1	.205
	Condition x Sociotropy	-.012	.171	.005	1	.473

Table 9b

Results from GLIMs with Independence by Condition Predicting Number of Positive and Negative TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
T1						
Positive TST	Independence	.014	.065	.11	1	.37
	Condition	-.048	.271	.031	1	.43
	Condition x Independence	.005	.097	.002	1	.482
Negative TST	Independence	.033	.144	.183	1	.334
	Condition	.592	.558	1.12	1	.145
	Condition x Independence	-.151	.201	.570	1	.225
T2						
Positive TST	Independence	.008	.085	.054	1	.408
	Condition	.015	.321	.002	1	.482
	Condition x Independence	-.044	.116	.141	1	.353
Negative TST	Independence	.355	.178	3.54	1	.030
	Condition	1.12	.629	3.18	1	.038
	Condition x Independence	-.292	.222	1.73	1	.095

Table 9c

Results from GLIMs with Solitude by Condition Predicting Number of Positive and Negative TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
T1						
Positive TST	Solitude	-.022	.062	2.32	1	.064
	Condition	.113	.15	.561	1	.227
	Condition x Solitude	-.091	.089	1.05	1	.153
Negative TST	Solitude	-.069	.137	1.31	1	.127
	Condition	-.409	.326	1.58	1	.105
	Condition x Solitude	.353	.188	3.54	1	.030
T2						
Positive TST	Solitude	-.071	.07	1.70	1	.10
	Condition	-0.71	.172	.17	1	.341
	Condition x Solitude	-.024	.102	.054	1	.409
Negative TST	Solitude	.387	.13	20.18	1	.000
	Condition	.252	.343	.541	1	.231
	Condition x Solitude	.055	.185	.090	1	.382

Table 10a

Results from GLIMs with Sociotropy by Condition Predicting Mean Negative Mood (POMS) at Time 1

T1	Predictor	B	SE	Wald χ^2	df	p
Model 1						
	Sociotropy	.481	.149	8.83	1	.002
	Condition	.994	.504	3.90	1	.024
	Condition x Sociotropy	-.348	.207	2.83	1	.046
Model 2						
	Sociotropy	.364	.137	2.13	1	.072
	Condition	1.21	.457	7.09	1	.004
	BDI	.033	.007	26.17	1	.000
	Condition x Sociotropy	-.44	.188	5.50	1	.010
Model Comparison: Goodness of Fit Indices						
		<u>AIC</u>	<u>BIC</u>			
	Model 1	244.26	257.72			
	Model 2	218.01	234.00			

Table 10b

Results from GLIMs with Sociotropy by Condition Predicting Mean Negative Mood (POMS) at Time 2

T2	Predictor	B	SE	Wald χ^2	df	p
	Sociotropy	.48	.183	11.84	1	.001
	Condition	.486	.629	.597	1	.220
	Condition x Sociotropy	-.089	.253	.122	1	.363

Table 10c*Results from GLIMs with Independence by Condition Predicting Mean Negative Mood (POMS)*

Predictor	B	SE	Wald χ^2	df	p
T1					
Independence	-.045	.189	.000	1	.437
Condition	-.122	.766	.026	1	.492
Condition x Independence	.097	.274	.124	1	.363
T2					
Independence	-.002	.264	.199	1	.328
Condition	.637	.978	.425	1	.258
Condition x Independence	-.154	.353	.190	1	.332

Table 10d*Results from GLIMs with Solitude by Condition Predicting Mean Negative Mood (POMS)*

Predictor	B	SE	Wald χ^2	df	p
T1					
Solitude	.512	.166	9.46	1	.001
Condition	.242	.414	.34	1	.56
Condition x Solitude	-.075	.55	.10	1	.38
T2					
Solitude	.353	.205	6.22	1	.007
Condition	.189	.51	.138	1	.356
Condition x Solitude	.033	.30	.012	1	.456

Table 11a*Results from GLIMs with Sociotropy by Condition Predicting NLT Implicit Self-Esteem*

Predictor	B	SE	Wald χ^2	df	p
T1					
Sociotropy	.148	.25	.840	1	.180
Condition	.052	.85	.004	1	.476
Condition x Sociotropy	.023	.348	.004	1	.474
T2					
Sociotropy	.757	.31	4.06	1	.023
Condition	2.13	1.06	4.01	1	.022
Condition x Sociotropy	-.653	.428	2.33	1	.064

Table 11b*Results from GLIMs with Independence by Condition Predicting NLT Implicit Self-Esteem*

Predictor	B	SE	Wald χ^2	df	p
T1					
Independence	.064	.301	.575	1	.224
Condition	1.35	1.22	1.22	1	.135
Condition x Independence	-.46	.437	1.10	1	.147
T2					
Independence	.25	.374	.391	1	.266
Condition	2.32	1.39	2.80	1	.047
Condition x Independence	-.82	.50	2.56	1	.052

Table 11c*Results from GLIMs with Solitude by Condition Predicting NLT Implicit Self-Esteem*

Predictor	B	SE	Wald χ^2	df	p
T1					
Solitude	.22	.282	2.55	1	.055
Condition	-.276	.705	.153	1	.348
Condition x Solitude	.212	.408	.270	1	.302
T2					
Solitude	.72	.30	2.60	1	.054
Condition	1.33	.737	3.23	1	.036
Condition x Solitude	-.74	.43	3.00	1	.042

Discussion

Data from the current experiment present a number of interesting findings in light of existing studies on sociotropy-autonomy and self-concept change. First, Study 2 results suggest that the way in which the self-construal prime influenced statements made by individuals scoring high on sociotropy and solitude was the reverse of what was expected based on previous experiments that manipulated self-construal without examining the role of personality variables (e.g., Dalsky, 2010; Gardner et al., 1999, Study 1). This was most evident in the current study in the finding that individuals scoring high on sociotropy or solitude who received the independent prime generated significantly more allocentric statements than those who received the interdependent prime, even after a time-delay. Considering sociotropic individuals have a tendency toward allocentric types of self-views that is well-established in the research literature, and which Study 1 of the current dissertation replicated, this finding may be significant. Specifically, it would appear from the current findings that priming independent or interdependent aspects of the self-concept may have a more complex effect on sociotropic self-concept content than previously anticipated, and thus, may not represent a straightforward shift from one personality mode to another, as researchers have previously suggested (e.g., Bieling et al., 2004). There are a number of interpretations that can be offered for these findings.

One interpretation of these unexpected findings is that the self-construal priming manipulation did not work as intended in the current experiment. For instance, the *correction contrast* phenomenon (Strack et al., 1993) describes a peculiar behaviour observed in some laboratory priming situations when participants exposed to a very explicit or obvious priming manipulation contrast their judgements with the expected prime. For example, Strack et al. (1993) show, as expected, that a subtle technique priming the independent self leads to less

perceived similarity to a target person than an interdependent prime. But when subjects were exposed to an obvious independent prime, they perceived themselves as *more similar* to the target than when primed with the interdependent self (Strack et al., 1993). Based on the mean number of collective (i.e., group and/or social role) TST statements that participants in general made in the independent and interdependent conditions in the current study, there is evidence that the manipulation had the intended effect of priming independent and interdependent orientations to the self, respectively. However, when individual differences in sociotropy or solitude are accounted for, the effect of the self-construal prime is unique. If results were due to a correction contrast, the unexpected patterns should likely have been found for the sample more generally and not just for those scoring higher on sociotropy or solitude.

Set in the context of important early feminist critiques, the reversed patterns found for allocentric and idiocentric statements among sociotropic individuals in the current experiment may be interpreted a different way. Early feminist critiques of the highly influential concept of dependency in the clinical literature have argued that the ways the sociotropic individual perceives themselves may not be understood in the individualistic terms that predominate Western societies (e.g., Rude & Burnham, 1993). For instance, Rude and Burnham (1993) demonstrate that widely used measures of dependency such as the SAS, tap not only dimensions

that have negative consequences for adjustment (e.g., neediness) but also dimensions that reflect a “relationally embedded self-concept” (e.g., connectedness, p. 325), which has been termed “mature relatedness” elsewhere (Quinlan & Blatt, 1993). Connectedness is an individual difference observed across cultures, including within individualistic cultures, where connectedness is apparent more in some subgroups than others, for example in women vs. men (Rude & Burnham, 1993; Stewart & Lykes, 1985). The majority of the current study sample were women. It has been noted that for women, interdependence or connectedness is likely to be a core aspect of the self-concept (Markus & Oyserman, 1988). The expectation in Study 2 that participants would respond to cues about independence with individualistic statements may itself reflect a cultural assumption that has “overestimated the importance and the centrality of autonomy and individuation to healthy personality development” (Rude & Burnham, 1993, p. 324). According to Rude and Burnham (1993), autonomous individualistic conceptualizations may serve very different roles in the organization, hierarchy, and functioning of the sociotropic self-concept. There may be important differences in how sociotropic and autonomous individuals interpret cues about independence compared to autonomous individuals (e.g., Kwon et al., 2001; Kwon & Whisman, 1998; Frewen & Dozois, 2006a; Otani et al., 2018; Robins & Block, 1988). This result suggests further refinement of the SAS may be needed to account for the distinction between connected and neediness, proposed by earlier researchers.

An alternative explanation has to do with assumptions about what the self-construal priming manipulation actually primed. It is possible that, for sociotropic individuals, the manipulations primed different standpoints on the self, but did not activate independent and interdependent constructs *per se*. Instead, sociotropics may have used these cues as a reference point against which to contrast the self, like the reference group effect described by Heine et al.

(2002). For example, when the independent self was made salient (i.e., "Think of how you are different from your family and friends. What do *you* expect you will do?"), sociotropics may have contrasted themselves with others, likely on personal domains of the self-concept in which sociotropic individuals are relatively social. The independent manipulation may have activated *private* values perceived as unique personal traits, which tend to involve valued relational traits (e.g., "caring," "considerate," "loyal"). Such contrasting may have served as an affirmation of personal values, an interpretation that would be consistent with the lower negative mood scores found among sociotropic participants in the independent condition of this study.

On the one hand, the current patterns appear inconsistent with Bieling et al. (2004) who argue therapies like Cognitive Therapy that emphasize self-determination and self-reliance, lead to defining oneself in less sociotropic terms. At least with regard to allocentric statements, Study 2 results suggest the opposite. These findings appear to suggest that emphasizing the independent self may not necessarily act on self-concept content in the way Bieling et al. (2004) propose – by reducing sociotropic definitions of the self-concept. On the other hand, emphasizing the independent self may have enhanced "adaptive" dimensions of sociotropy, for example, what is termed 'allocentric' in this study could be characterized as connectedness (e.g., "I am friendly," "I am loyal," "I am a good friend," "I am kind"), and in turn, reduced dependent dimensions of sociotropy. This is what Bieling et al. (2004) argue in part. The distinction between dependency and connectedness may play an important role in shaping the self-concept, as has been argued previously (e.g., Rude & Burnham, 1993).

Consistent with Beck's (1983) original theorizing about the negative impact of overemphasizing either sociotropy or autonomy domains, but less in-line with the more recent theorizing by Bieling et al. (2004) about the general utility of reinforcing independent aspects of

the self-concept, Study 2 found that as hypothesized, individuals scoring high on solitude generated fewer negative statements in the interdependent condition while those in the independent condition generated more negative statements. Moreover, consistent with this finding, Time 2 NLT implicit self-esteem results provide some initial support for the idea that emphasizing interdependent aspects of the self might have a positive impact on implicit self-esteem for autonomous participants in this study. Interestingly, the main effect of sociotropy on Time 2 NLT implicit self-esteem scores seems to suggest that while highly sociotropic individuals may explicitly express relatively negative self-views, implicit self-esteem may look different. This initial finding is consistent with research hypothesizing important differences between explicit and implicit self-esteem among those for whom it is culturally normative to express self-criticism (e.g., the Japanese tendency toward self-deprecation in Kitayama & Uchida, 2003). Similarly, sociotropic individuals may express self-critical attitudes in service of reassurance-seeking behaviours characteristic of this personality style (e.g., Beck et al., 2001). Interestingly, these effects were found at Time 2 but not Time 1, suggesting the effect of the primes may be latent.

Importantly, the initial finding with respect to mood in the current study is also consistent with Beck's (1983) original theorizing, that an overinvestment in sociotropic concerns predisposes the individual to depression, and more recent correlation studies showing that thinking about individualistic aspects of the self-concept is associated with less depression symptoms and less negative self-views (e.g., Bieling et al., 2004; Mak et al., 2011). It is interesting to note that the mood effect resulted from such a short and simple priming procedure, one that individuals likely regularly experience outside the laboratory (i.e., how am I the same as/different from friends and family? What do they expect/what do I expect?) There is a caveat

to this finding, however. With regard to the results for mood among sociotropics in the current experiment, a potential limitation is that, after the TST was administered – but before the mood questionnaire, participants completed the contextualized version of the TST. The contextualized free-response questionnaire (Cousins, 1989) instructed participants to provide statements about themselves in several different contexts: at home, with friends, at school, at a party, in class. It is possible that completing the contextualized format somehow interfered with the effect of the experimental prime on mood in the current study, although it is unclear what effect this contextualized exercise had on mood, given that the 5 contexts provided could be interpreted as consisting of both private and social situations. Nonetheless, considering the pattern of results for the content of responses to the TST was unexpected, Study 3 was conducted to replicate the current study results, without administering the contextualized free-response questionnaire. The aim of Study 3 was therefore to present a direct replication of Study 2 (except for the contextualized free-response questionnaire).

The current findings, especially the unanticipated pattern of self-descriptive content, support the need for more direct investigations of the dynamic between individual differences in interpersonal orientation (e.g., sociotropy-autonomy) and contextual cues about interpersonal orientation. Initial findings suggest that self-concept change involves more than a simple shift from a focus on interdependent aspects of the self-concept to independent aspects, for example.

Chapter 4

Study 3

Replicating Experimental Results from Study 2

The purpose of Study 3 was to provide a direct replication of Study 2, except that the contextualized free-response questionnaire was not included in Study 3 in order to more carefully isolate the effect of the experimental manipulation on mood. As such, the study hypotheses outlined for Study 2 were re-examined here using a second undergraduate student sample with a very similar demographic profile. Study 3 consisted of two parts described to participants as investigating personality, imagination, and the self-concept. The procedure and measures used in Study 3 directly replicated those used in Study 2. Briefly, this two-part study consisted of two testing sessions on campus (Part 1) and one online testing session (Part 2): Part 1 involved a 1-hour questionnaire and a 1-hour experiment completed on separate occasions in the laboratory; Part 2 involved an online experiential sampling questionnaire after a one day time-delay, using smartphone technology.

Method

Participants

Participants were Introductory Psychology students recruited from the URPP at York University. Overall, the sample demographics were consistent with the previous two studies reported in this dissertation. The final sample at Time 1 (the laboratory experiment) was 106 participants with a mean age of 19.3 ($SD = 3.25$) years; ages ranged from 17 to 36, the sample was 77% female, with 82 females and 21 males (gender was not indicated for two participants).

Sixty percent of this sample was born in Canada and English was the first language for 61% of participants. The predominant cultural identification reported by participants was

Canadian/European ($n = 37$; 35%), followed by South/Southeast Asian ($n = 33$; 31%), Caribbean/West Indian ($n = 8$; 8%), East Asian ($n = 8$; 8%), Middle-Eastern ($n = 6$; 6%), African ($n = 5$; 5%); Latin American ($n = 1$; 1%), and 8 participants did not indicate cultural identity. On a scale of $1 = \textit{Not at all}$ to $7 = \textit{Very much}$ for the degree to which participants identified with their primary cultural group reported above, the mean score for this sample was 5.2 ($SD = 1.58$) and the mode was 6. Fifty-one percent of the current sample reported identifying with a secondary cultural group as well. Of these, Canadian/European was the secondary cultural group most frequently identified ($n = 32$; 62%). As expected, the majority of participants reported growing up in a large city ($n = 62$; 59%) or a small city ($n = 34$; 32%). Finally, 71% of the current sample's relationship status was single, followed by 25% who reported being in a committed relationship but not married or common-law, and the remainder of the sample was distributed among married and separated status.

Procedure

Participants arrived at the laboratory for the first of two laboratory sessions in small groups (2-10 participants). After receiving a short presentation orienting them to the study and completing the informed consent form (Appendix A), participants received the study questionnaire package. The questionnaire package assessed sociotropy and autonomy using the SAS, depression symptoms using the BDI-II, and negative mood states using the negative mood subscale of the POMS, presented in randomized order. This set of key measures was followed by a set of filler items not examined in this study (e.g., need for cognition, openness to experience, neuroticism, conscientiousness). Next a demographics questionnaire and a mood-boosting exercise (participants rated a series of cartoon comics) were presented, in this order.

Approximately two weeks later, participants returned for the second laboratory session in small groups (2-7 participants) to complete the experiment portion of this study. First, participants were randomly assigned to one of two experimental priming conditions: 1) independent self-construal prime or 2) interdependent self-construal prime. For this task, participants were instructed to spend two minutes thinking about either what they have *in common with* or how they are *different from* friends and family. Next, participants completed 20 free-response statements using the Twenty Statements Test. This was immediately followed by an assessment of mood states using the POMS. Next, participants completed the NLT implicit self-esteem measure, and the 1-item sliding scale of achievement/autonomy-interpersonal relationship focus manipulation check, and finally, the mood-boost exercise (rating cartoon comics), in this order. Experimental procedures in Study 3 were therefore exactly the same as in Study 2, except that participants in the current study did not complete the contextualized version of the Twenty Statements Test. At the end of the laboratory experiment, participants were invited to register with *SurveySignal* to continue with Part 2 of this study: the online experiential sampling questionnaire that was to be administered on their smartphones the next day. However, due to a technical error, data were not collected for Part 2 of the current study. Finally, participants received a link to the online study debrief form (Appendix B).

Measures

As outlined above, the measures administered in the current study were directly replicated from Study 2 (except for the contextualized Twenty Statements Test). Briefly, measures included the revised Sociotropy-Autonomy scale (SAS; Clark et al., 1995); Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996); Profile of Mood Scale (POMS; McNair et al., 1971); demographics questionnaire (including age, gender, country born in,

cultural identification, place grew up in, relationship status); the *similar/different* self-construal priming manipulation (Trafimow et al., 1991); the Twenty Statements Test (TST; Kuhn & McPartland, 1954); the Name Letter Test measure of implicit self-esteem (NLT; Nuttin, 1985); the one-item sliding scale of personal-autonomy/relationship focus manipulation check; and the comics rating mood-boost exercise. The same coding scheme (detailed in the Methods section for Study 2, Chapter 3) was used to content analyze participants' responses to the TST in the current sample.

Analysis plan. Study 3 descriptive statistics and correlations are presented first. This is followed by results from manipulation checks and results from regression models testing the effect of the interaction between the personality variable (SAS sociotropy, independence, or solitude) and experimental condition (independent self-construal prime vs. interdependent self-construal prime) on the dependent variable (allocentric/idiocentric/positive/negative TST statements, negative mood, and NLT implicit self-esteem; see Table 12). Regression techniques were applied first to a content analysis of TST statements, testing the effect of condition at different levels of the personality variable (SAS sociotropy, independence, or solitude) on the kinds of statements (number of allocentric, idiocentric, positive, negative) generated. Then regression techniques were used to test the effect of condition at different levels of the personality variable on (continuous) mean negative mood and (continuous) mean NLT implicit self-esteem dependent variables. The categorical count dependent variables (i.e., allocentric, idiocentric, positive, negative statements), and the (continuous) mean negative mood and NLT implicit self-esteem dependent variables were created using the procedures described in Study 2. Each model consisted of: $Y = \text{intercept} + \text{personality variable} + \text{condition} + \text{personality variable} \times \text{condition}$. Generalized linear models (GLIM) were again used to examine each of the 4 count

dependent variables (i.e., allocentric, idiocentric, positive, negative statements), continuous mean negative mood, and continuous mean implicit self-esteem dependent variables. The type of GLIM conducted was based on the characteristics of the dependent variable (e.g., count or continuous). To analyze count dependent variables (number of allocentric, idiocentric, positive, negative TST statements), Poisson regression models for count data were used. Normal regression GLIM with identity link (i.e., normal regression model) was conducted in order to examine continuous dependent variables (negative mood and NLT implicit self-esteem). Results from regression analyses are reported for one-way tests of significance ($\alpha = .05$); all other tests are two-tailed.

Table 12

Overview of Study 3 Variables

Independent variables	Dependent variables
Sociotropy	Allocentric statements
Independence	Idiocentric statements
Solitude	Positive statements
Experimental condition	Negative statements
	Negative mood
	NLT implicit self-esteem

Results

General Sample Characteristics

Descriptive statistics and correlations among personality variables (SAS sociotropy, independence, solitude), negative mood, and depression symptoms assessed at the initial questionnaire session are provided in Appendix G. Means and standard deviations for study scales are consistent with Study 2, and comparable with previous studies using similar undergraduate samples (e.g., Clark et al., 1995; Dozois et al., 1998; Rasmussen & Jeffrey, 1995).

Study scales were reliable (α was .71 to .97) and bivariate correlations among measures showed good convergent and discriminant validity. For example, as expected, sociotropy was correlated with depression symptoms (assessed at initial questionnaire session) using the BDI-II ($r = .35, p = .000$), independence was not correlated with depression symptoms ($r = -.003, p = .98$), and depression symptoms were correlated with negative mood ($r = .828, p = .000$). Importantly, sociotropy was again correlated with negative mood assessed at the initial questionnaire ($r = .40, p = .000$), replicating Study 1 and 2 findings. The mean BDI-II depression score for the current sample ($M = 16.53, SD = 11.12$) indicates that on average, participants in this study would be considered dysphoric (Dozois et al., 1998). Participants in the current sample might be considered slightly less depressed than participants in Study 2: of the 106 participants in this study, 42.7% were in the non-depressed range (scored 0-12), 28.2% were in the dysphoric range (scored 13-19), and whereas 40% of Study 2 participants were in the dysphoric-depressed range (scored 20-63), only 29.1% scored in this range in the current study, with the highest score in this sample being 59. Independent samples t-tests indicated there were no significant differences in mean SAS personality scores, depression symptoms, or negative mood scores between participants who were assigned to the independent or interdependent experimental priming conditions (see summary table in Appendix H).

Manipulation Checks

Two experimental manipulation checks were performed to examine the extent to which the experimental manipulation had the intended effect of priming independent/interdependent self-construal. First, the number of TST responses coded as containing group membership(s) or social role(s) generated in the two experimental conditions (as in Gardner et al., 1999) served as a manipulation check. As expected, an Independent-samples t-test shows that participants who

received the interdependent self-construal prime generated significantly more group and/or social role statements than those who received the independent prime ($M = 9.79$, $SD = 4.1$ and $M = 8.44$, $SD = 3.51$, respectively; $t(99.94) = -1.80$, $p = .038$, 2-tailed).

Second, at the end of the laboratory experiment, all participants were asked to indicate on a scale from 1= *entirely interpersonal* to 10= *entirely personal achievement-autonomy* what concerns they were focused on “right now at this moment.” Contrary to expectations and consistent with Study 2, the mean difference between conditions was not significant. On average participants reported they were focused just slightly more on personal-achievement content in both the independent and interdependent conditions ($M = 5.8$, $SD = 2.62$; and $M = 6.56$, $SD = 2.56$, $t(103.98) = -1.51$, $p = .134$, 2-tailed, respectively).

Regression Analyses

Tables 13a to 14c provide the results of the Poisson regression models for count data examining the frequency with which different kinds of statements (allocentric, idiocentric, positive, negative) were generated in the experimental conditions at different levels of the personality variable (SAS sociotropy, independence, or solitude).

TST Content

The hypothesized interaction between sociotropy and condition predicting allocentric statements was not statistically significant ($\chi^2 = 2.08(1)$, $p = .075$), however, there is a trend that corresponds with the pattern of results found in Study 2: as sociotropy scores increased, participants generated more allocentric statements in the independent condition compared to those in the interdependent condition. Figures provided below depict interactions using the natural scale (i.e., unit count) of the dependent variables. Figure 8a illustrates the non-significant interaction slopes for sociotropy x condition predicting allocentric statement counts. The

interaction between sociotropy and condition predicting idiocentric statements was not statistically significant ($\chi^2 = 2.32(1), p = .064$), but again appears to mirror the patterns found in Study 2: as sociotropy scores increased, participants generated fewer idiocentric statements in the independent condition compared to those in the interdependent condition (see Figure 8b).

Figure 8a

Non-Significant Simple Slopes for Sociotropy by Condition Predicting Allocentric TST Statements

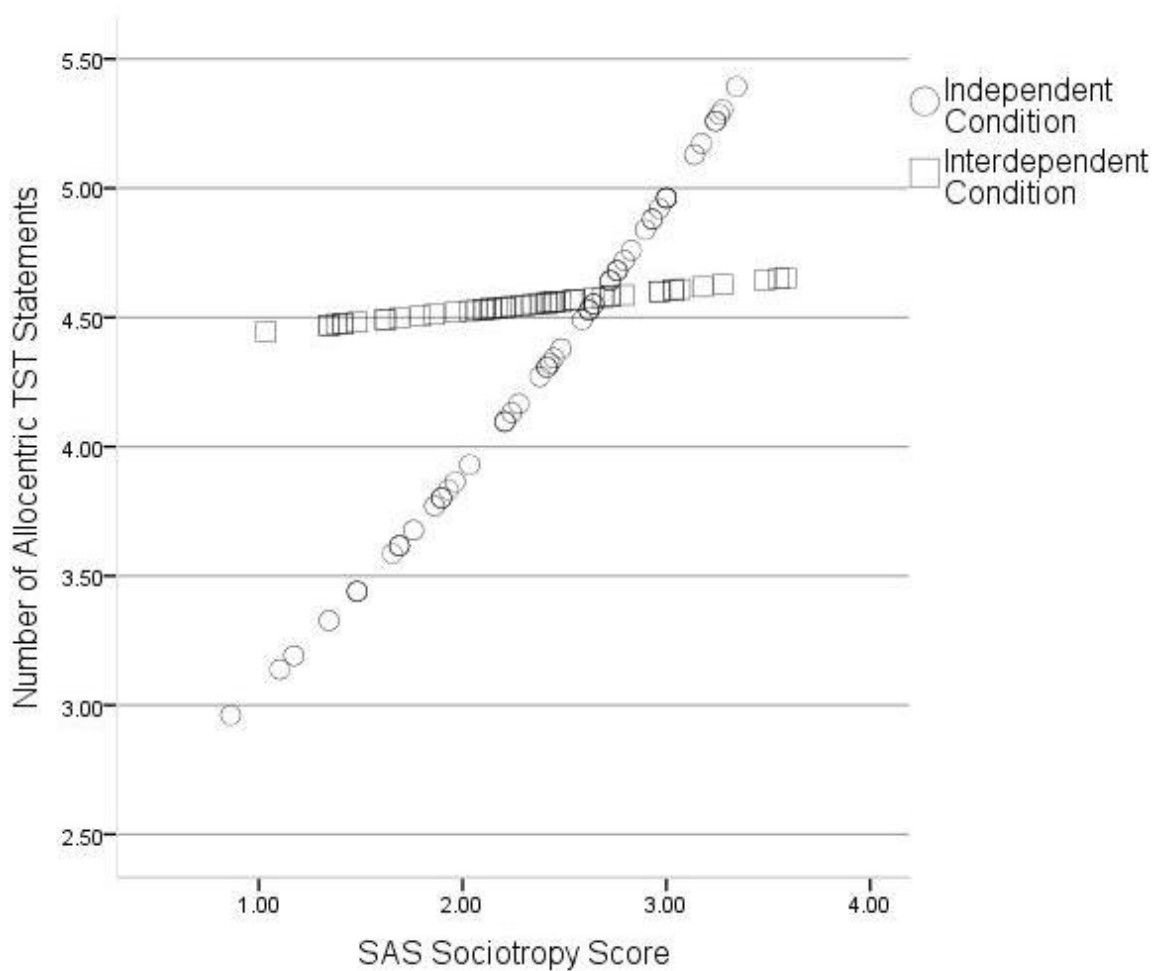
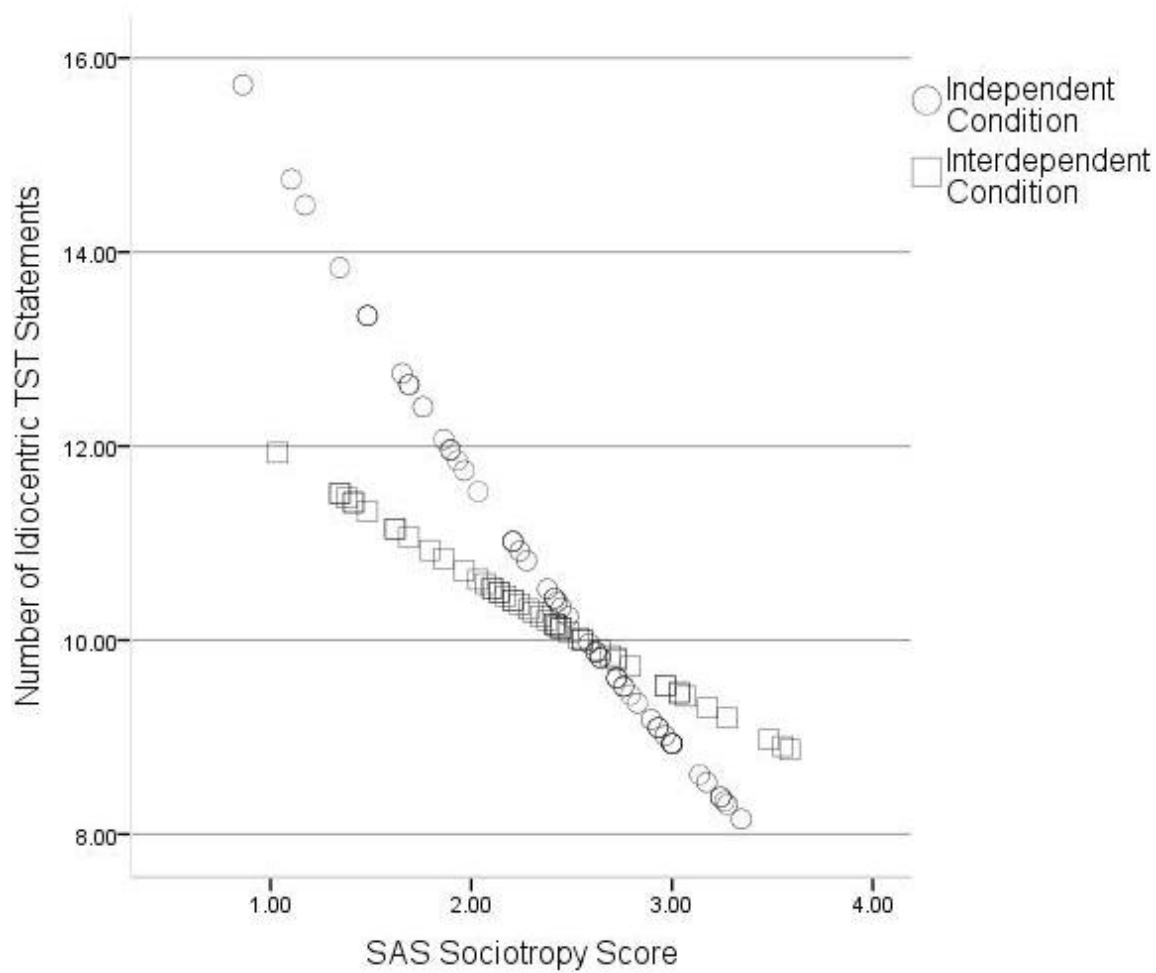


Figure 8b

Non-significant Simple slopes for Sociotropy by Condition Predicting Idiocentric TST Statements



The results for independence are more mixed. The hypothesized interaction between independence and condition predicting allocentric statements was significant ($\chi^2 = 8.22(1), p = .002$, Pseudo $R^2 = 0.27$), but the direction of the associations was unanticipated. Opposite to what was hypothesized, as independence increased, participants generated more allocentric statements in the independent condition and fewer in the interdependent condition (see Figure 8c). From Figure 8c we can see that with a one unit increase in independence from 2.0 to 3.0, allocentric statements decreased by 2.56 in the interdependent condition and increased slightly by 0.23 in the independent condition. This result mirrors what was found for sociotropy and solitude dimensions in Study 2 of this dissertation. On the other hand, as hypothesized, independence interacted with condition to predict idiocentric statements ($\chi^2 = 4.88(1), p = .014$, Pseudo $R^2 = 0.25$) in the expected direction: as independence scores increased, participants generated more idiocentric statements in the independent condition compared to those in the interdependent condition (Figure 8d). From Figure 8d we can that with a one unit increase in independence from 2.0 to 3.0, idiocentric statements increased by 3.01 in the independent condition. The results did not support the first study hypothesis with respect to solitude; solitude did not interact with condition to predict the frequency with which allocentric or idiocentric statements were generated ($\chi^2 = .052(1), p = .410$; $\chi^2 = .005(1), p = .472$, respectively).

Figure 8c

Simple Slopes of Independence by Condition Predicting Allocentric TST Statements

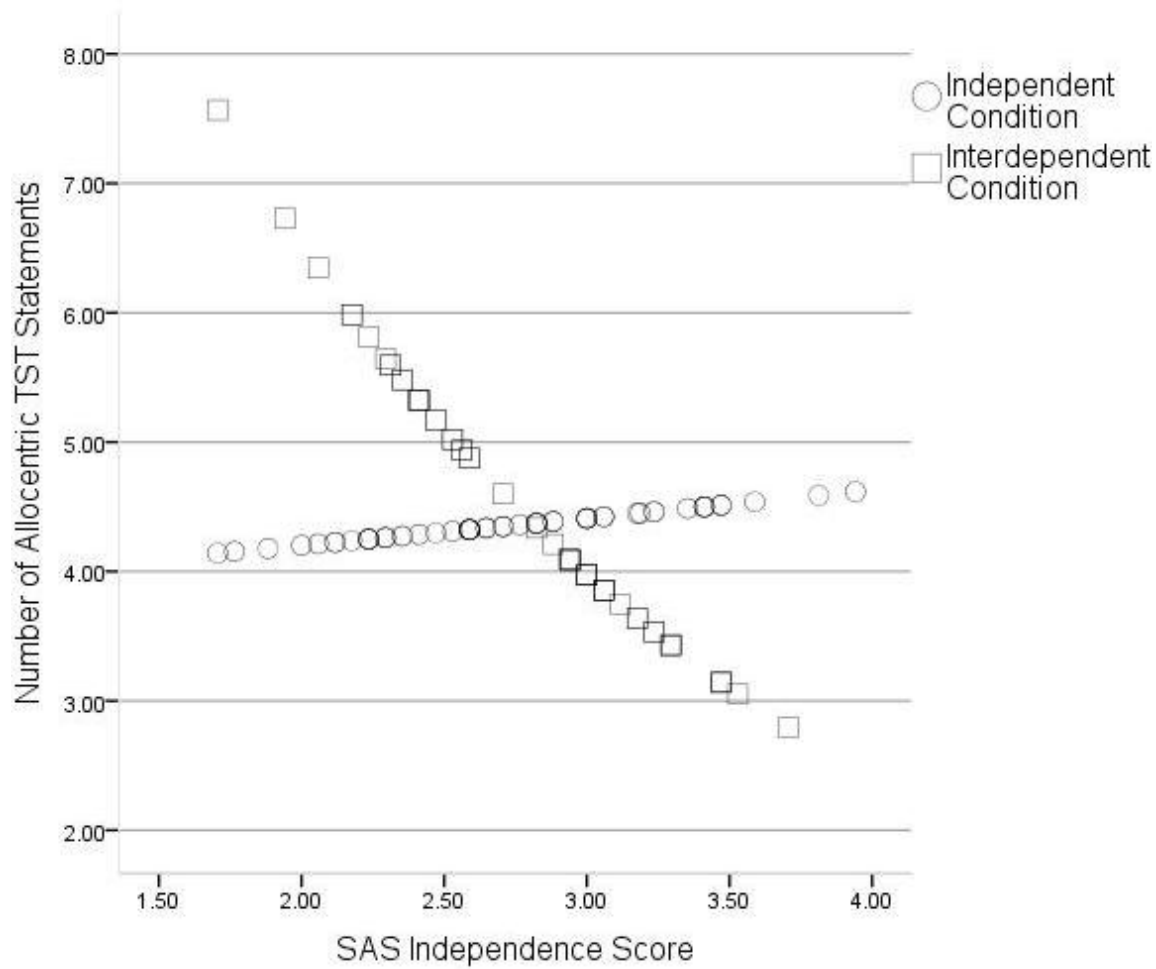
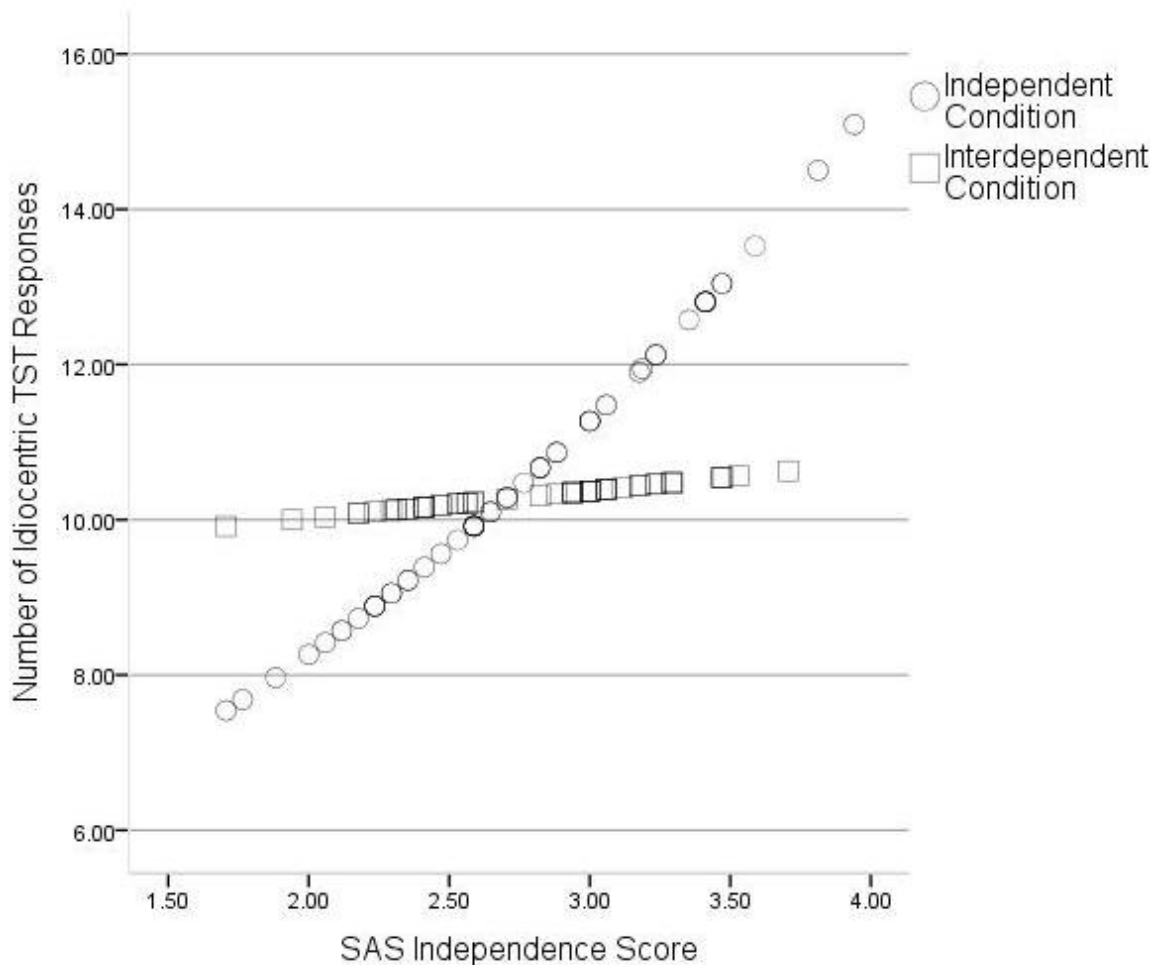


Figure 8d

Simple Slopes of Independence by Condition Predicting Idiocentric TST Statements



TST Valence

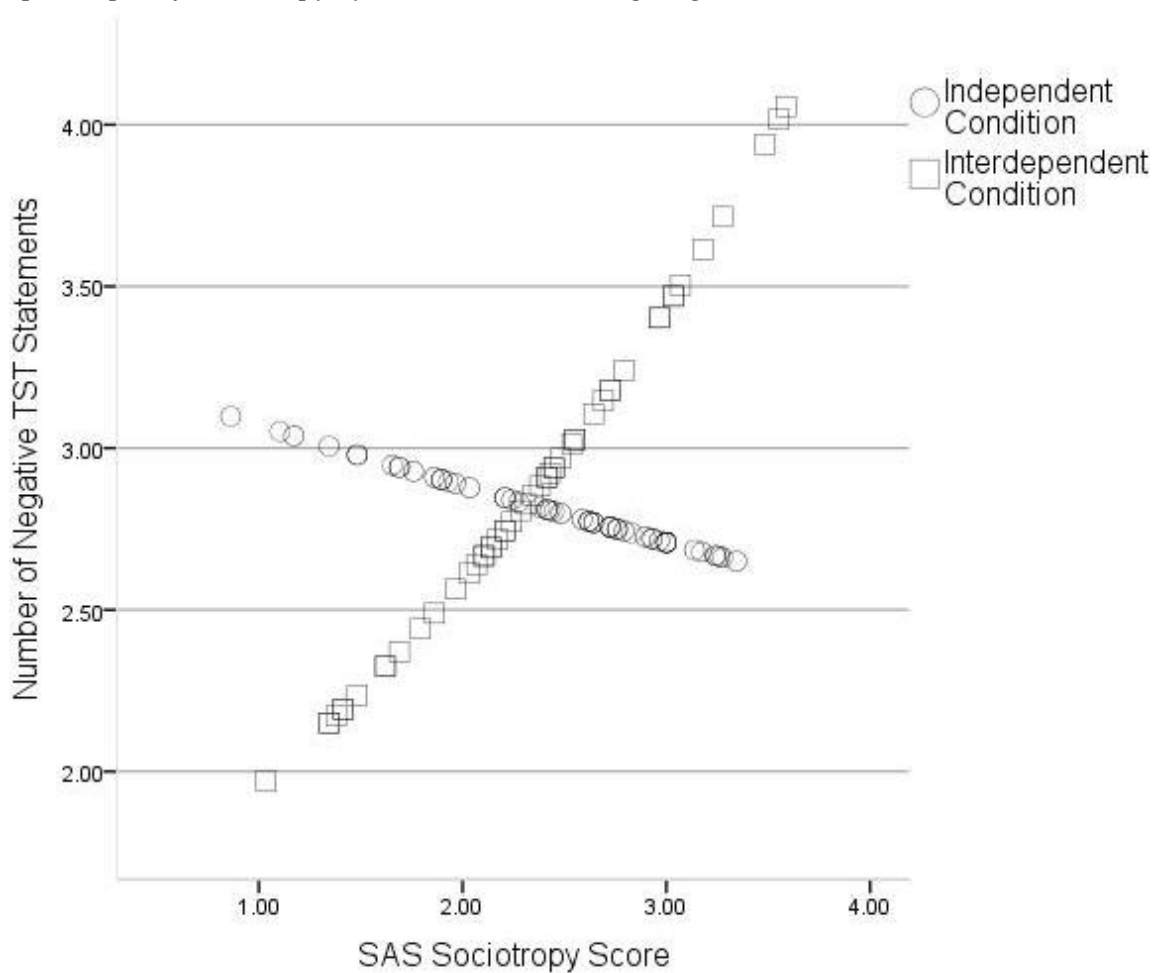
Importantly, the results supported the second hypothesis with respect to sociotropy. Sociotropy significantly interacted with condition to predict the frequency of negative TST statements ($\chi^2 = 3.37(1)$, $p = .034$, Pseudo $R^2 = 0.14$).² From Figure 9a, we can see that with a one unit increase in sociotropy from 2.0 to 3.0, negative statements increased by 0.85 in the

² Standardized Pearson Residuals for all Poisson regressions models for Negative TST counts were non-normally (Poisson) distributed; negative binomial and normal models were also run but did not improve the normality of standardized residuals.

interdependent condition and decreased by 0.2 in the independent condition. Considering that more than 50% of participants generated 2 negative statements or less and 75% of participants generated 4 negative statements or less, the increase in the interdependent condition may be noteworthy. The interaction between sociotropy and condition predicting positive statements was not significant ($\chi^2 = 2.42(1), p = .06$).

Figure 9a

Simple Slopes of Sociotropy by Condition Predicting Negative TST Statements



The hypothesized interaction between independence and condition predicting the frequency of positive TST statements was significant ($\chi^2 = 2.73(1)$, $p = .049$, Pseudo $R^2 = 0.21$) but the direction of the associations was not anticipated: as independence increased, participants generated more positive statements in the independent condition and slightly fewer in the interdependent condition. From Figure 9b we can see that with a one unit increase in independence from 2.0 to 3.0: the number of positive statements increased by approximately 2.21 statements in the independent condition while in the interdependent condition it decreased by approximately 0.29 statements. The interaction between independence and condition predicting negative statements was not significant ($\chi^2 = 1.35(1)$, $p = .123$). The hypothesized interaction between solitude and condition predicting the frequency of negative statements was significant ($\chi^2 = 3.71(1)$, $p = .027$; Pseudo $R^2 = 0.14$), but again, the direction of the associations runs counter to what was predicted: as solitude scores increased, participants generated more negative statements in the interdependent condition compared to those in the independent condition. From Figure 9c we can see that with a one unit increase in solitude from 1.0 to 2.0: the number of negative statements increases by 1.66 in the interdependent condition vs. 1.07 in the independent condition (Figure 9c). The interaction between solitude and condition did not significantly predict the frequency of positive statements ($\chi^2 = .255(1)$, $p = .307$).

Figure 9b

Simple Slopes of Independence by Condition Predicting Positive TST Statements

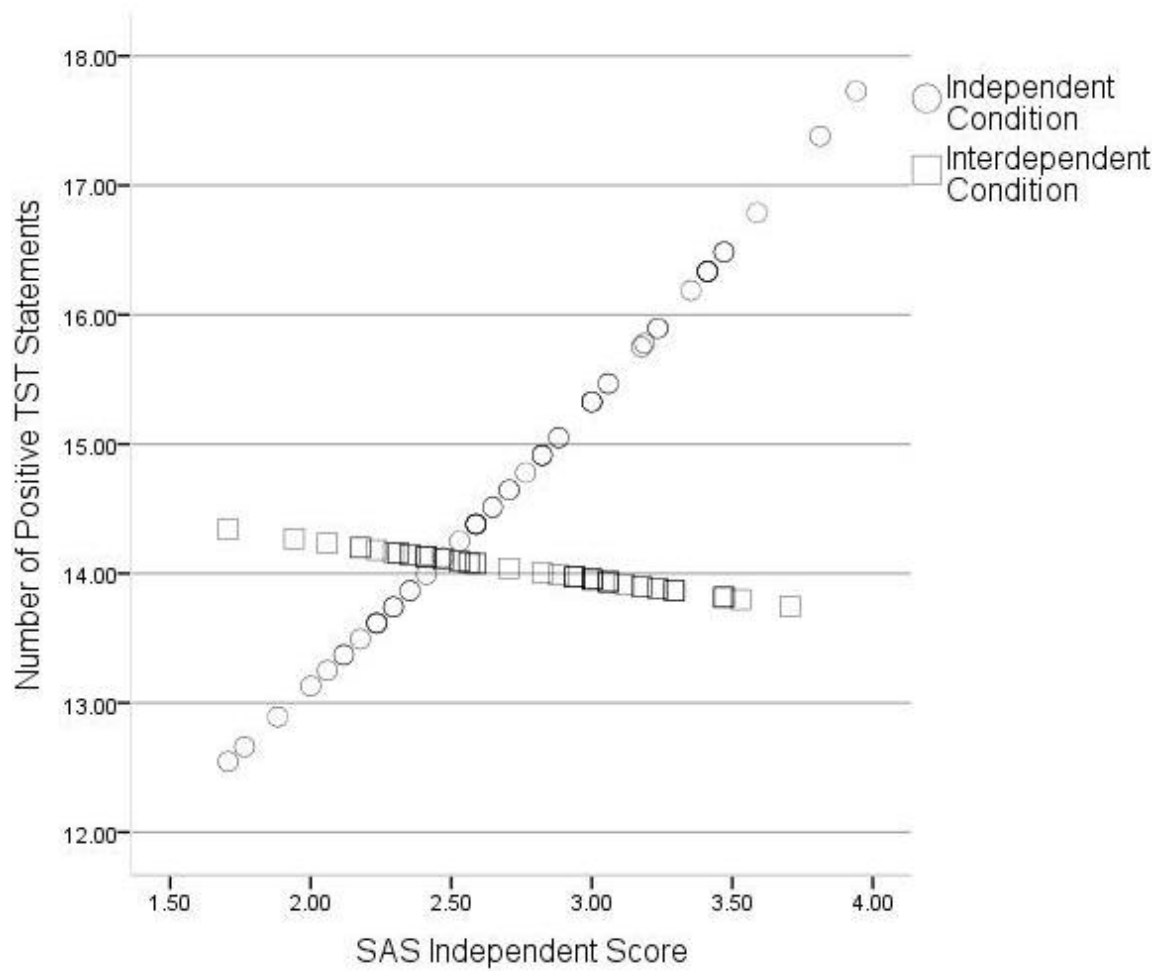
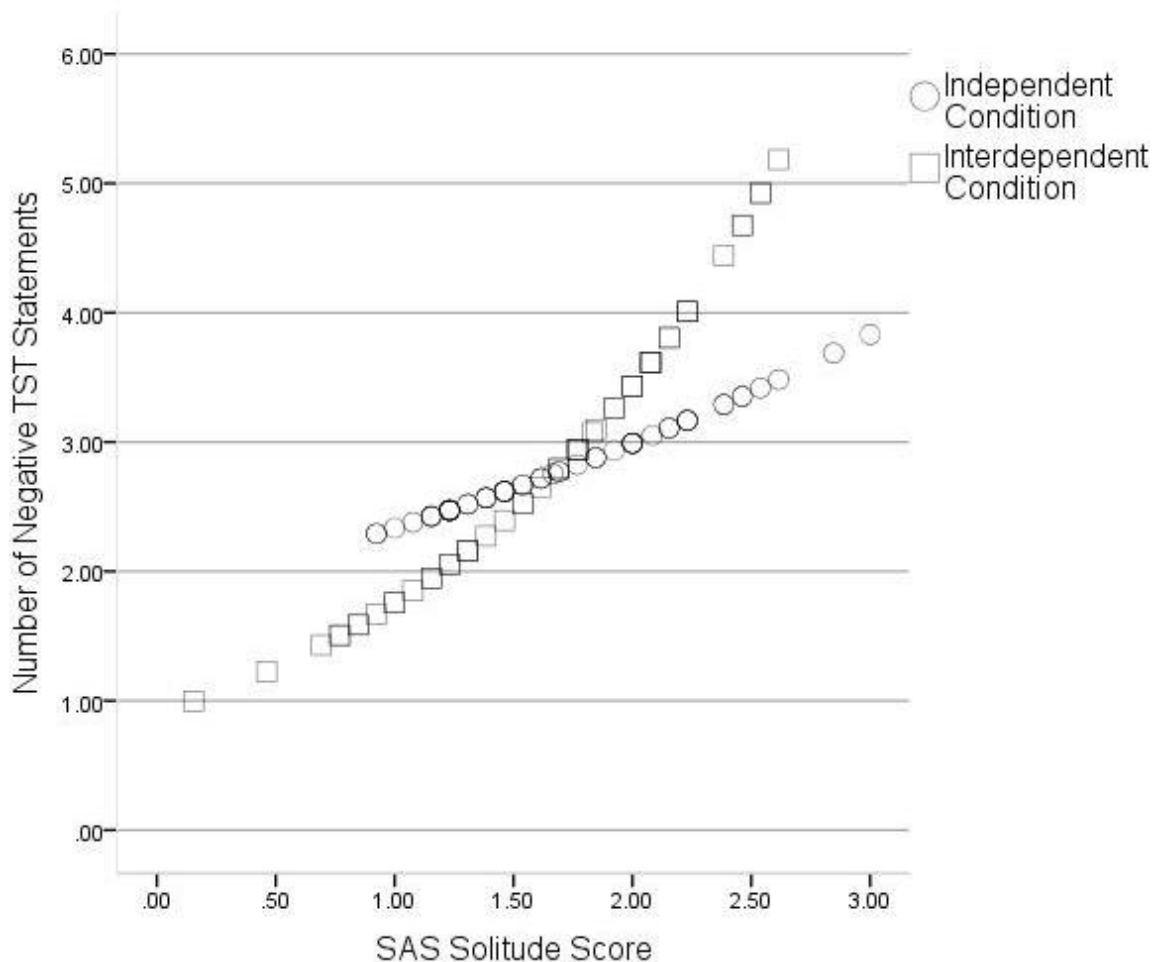


Figure 9c

Simple Slopes of Solitude by Condition Predicting Negative TST Statements



Mood

An Independent samples t-test was conducted first to check for an overall mean difference in negative mood between the two conditions. As expected, there was no significant difference between independent ($M = .93$, $SD = .81$) and interdependent conditions ($M = .813$, $SD = .63$); $t(104) = .829$, $p = .205$. Tables 15a to 15c provide the results of normal regression models examining the hypothesized interaction between personality variables and condition to predict negative mood. The results did not support the third hypothesis; there were no significant

interactions between sociotropy, independence, or solitude and condition predicting negative mood in the current sample ($\chi^2 = .080(1), p = .389$; $\chi^2 = .085(1), p = .386$; $\chi^2 = .061(1), p = .403$, respectively).

Implicit Self-Esteem

Tables 16a to 16c provide the results of normal regression models examining the hypothesized interaction between personality variables and condition to predict NLT implicit self-esteem scores. The results did not support the fourth hypothesis; there were no significant interactions between sociotropy, independence, or solitude and condition predicting NLT implicit self-esteem ($\chi^2 = .013(1), p = .455$; $\chi^2 = .051(1), p = .411$; $\chi^2 = .015(1), p = .452$, respectively). The standard deviation of mean scores on the NLT implicit self-esteem measure is high relative to its mean ($M = 1.66, SD = 1.33$), suggesting a lack of uniform distribution of scores.

Table 13a

Results from GLIMs with Sociotropy by Condition Predicting Number of Allocentric and Idiocentric TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
Allocentric TST	Sociotropy	.018	.108	2.79	1	.048
	Condition	-.60	.388	2.36	1	.062
	Condition x Sociotropy	.224	.155	2.08	1	.075
Idiocentric TST	Sociotropy	-.116	.072	15.31	1	.000
	Condition	.383	.232	2.74	1	.049
	Condition x Sociotropy	-.148	.097	2.32	1	.064

Table 13b

Results from GLIMs with Independence by Condition Predicting Number of Allocentric and Idiocentric TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
Allocentric TST	Independence	-.50	.144	5.56	1	.009
	Condition	-1.54	.526	8.53	1	.002
	Condition x Independence	.547	.19	8.22	1	.002
Idiocentric TST	Independence	.035	.096	7.64	1	.003
	Condition	-.744	.356	4.38	1	.018
	Condition x Independence	.276	.125	4.88	1	.014

Table 13c

Results from GLIMs with Solitude by Condition Predicting Number of Allocentric and Idiocentric TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
Allocentric TST	Solitude	-.125	.11	2.86	1	.046
	Condition	.034	.30	.013	1	.454
	Condition x Solitude	-.039	.171	.052	1	.410
Idiocentric TST	Solitude	.069	.075	1.40	1	.119
	Condition	.034	.198	.029	1	.433
	Condition x Solitude	-.008	.111	.005	1	.472

Table 14a

Results from GLIMs with Sociotropy by Condition Predicting Number of Positive and Negative TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
Positive TST	Sociotropy	-.122	.062	1.80	1	.09
	Condition	-.250	.205	1.49	1	.111
	Condition x Sociotropy	.131	.085	2.42	1	.060
Negative TST	Sociotropy	.283	.136	1.37	1	.122
	Condition	.80	.47	2.90	1	.045
	Condition x Sociotropy	-.346	.189	3.37	1	.034

Table 14b

Results from GLIMs with Independence by Condition Predicting Number of Positive and Negative TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
Positive TST	Independence	-.021	.082	1.58	1	.071
	Condition	-4.34	.300	2.09	1	.105
	Condition x Independence	.176	.106	2.73	1	.049
Negative TST	Independence	.005	.18	1.26	1	.131
	Condition	.734	.668	1.21	1	.136
	Condition x Independence	-.28	.24	1.35	1	.123

Table 14c

Results from GLIMs with Solitude by Condition Predicting Number of Positive and Negative TST Statements

Outcome	Predictor	B	SE	Wald χ^2	df	p
Positive TST	Solitude	-.071	.063	4.00	1	.023
	Condition	.141	.165	.733	1	.196
	Condition x Solitude	-.048	.095	.255	1	.307
Negative TST	Solitude	.669	.154	17.55	1	.000
	Condition	.706	.414	2.91	1	.044
	Condition x Solitude	-.422	.219	3.71	1	.027

Table 15a*Results from GLIMs with Sociotropy by Condition Predicting Mean Negative Mood (POMS)*

Predictor	B	SE	Wald χ^2	df	p
Sociotropy	.519	.153	21.38	1	.000
Condition	.19	.518	.135	1	.357
Condition x Sociotropy	-.60	.211	.080	1	.389

Table 15b*Results from GLIMs with Independence by Condition Predicting Mean Negative Mood (POMS)*

Predictor	B	SE	Wald χ^2	df	p
Independence	-.073	.23	.031	1	.431
Condition	-.144	.822	.042	1	.420
Condition x Independence	.085	.293	.085	1	.386

Table 15c*Results from GLIMs with Solitude by Condition Predicting Mean Negative Mood (POMS)*

Predictor	B	SE	Wald χ^2	df	p
Solitude	.368	.437	10.35	1	.001
Condition	-.045	.165	.011	1	.460
Condition x Solitude	.061	.248	.061	1	.403

Table 16a*Results from GLIMs with Sociotropy by Condition Predicting Mean NLT Implicit Self-Esteem*

Predictor	B	SE	Wald χ^2	df	p
Sociotropy	-.068	.302	.192	1	.331
Condition	.537	1.02	.275	1	.300
Condition x Sociotropy	-.047	.42	.013	1	.455

Table 16b*Results from GLIMs with Independence by Condition Predicting Mean NLT Implicit Self-Esteem*

Predictor	B	SE	Wald χ^2	df	p
Independence	.296	.401	.806	1	.185
Condition	.752	1.48	.258	1	.306
Condition x Independence	-.119	.526	.051	1	.411

Table 16c*Results from GLIMs with Solitude by Condition Predicting Mean NLT Implicit Self-Esteem*

Predictor	B	SE	Wald χ^2	df	p
Solitude	.117	.311	.385	1	.268
Condition	.310	.828	.140	1	.354
Condition x Solitude	.057	.47	.015	1	.452

Discussion

The unexpected pattern of responses to the TST following the experimental self-construal primes found in Study 2 were generally replicated in the current experiment. In particular, sociotropic individuals generated more allocentric statements when they received the independent self-construal prime in both experiments, which was the reverse of what was predicted. Importantly, the Study 2 finding that those scoring higher on sociotropy reported less negative mood in the independent condition than in the interdependent condition was not directly replicated in Study 3, but in line with predictions, as sociotropy increased, participants in the current study generated fewer negative statements in the independent condition and generated more negative statements in the interdependent condition. In summary, in two experiments, those scoring higher on sociotropy and primed with independent self-construal generated more allocentric statements and reported less negative mood (Study 2), and made fewer negative self-statements (Study 3) than those primed with interdependent self-construal.

The two sets of findings for sociotropy provide some of the first experimental evidence of self-concept change along personality-relevant dimensions, and appears to lend support to Bieling et al.'s (2004) contention that the shift from a sociotropic focus to a more independent focus, emphasized in cognitive therapy, alleviates current depression symptoms and negative attitudes about the self, and potentially buffers against psychopathology. However, the current experiments do not appear to support their interpretation of how the emphasis on independence may have affected the content of participants' self-concepts in their study. Bieling et al. (2004) speculated that one of the mechanisms underlying symptom improvement in their sample of depressed patients was a change in how participants determined self-worth over the course of therapy, from valuing the opinions of others to "valuing one's own opinion more than the

opinion of others, especially in determining worth” (p. 141). The decreases observed in the sociotropy subscale in their study was interpreted as a shift from sociotropic self-definitions to more autonomous (i.e., individualistic) definitions. Study 2 and 3 of the current dissertation point to a more nuanced picture, offering initial evidence that an emphasis on independent aspects of the self-concept for sociotropic individuals may not involve a shift to individualistic notions of autonomy traditionally characterized by “self-reliance,” “self-determination,” or “hardiness” as in Bieling et al. (2004, p. 141). In contrast, findings from the current experiments suggest that a focus on independent aspects may be experienced as an effort to define the self-concept in allocentric terms. Moreover, in contrast to Rude and Burnham’s (1993) interpretation of the “connectedness” dimension of sociotropy as an adaptive and mature style of relating to others, Bieling et al. (2004) suggest that this preference for affiliation can have a negative impact when it “reaches a problematic “threshold,” for example for individuals experiencing depression, and that, “this factor is not benign at all levels” (p. 145). Although it is clear from the literature that certain dimensions of sociotropy are problematic, data from the current experiments suggests the possibility that at least some aspects of sociotropy (i.e., allocentrism) may be associated with reduced negative self-evaluations under certain conditions. Conceptual replications are needed to examine the unexpected pattern of results reported in the current studies using different experimental manipulations and other self-concept measures.

The finding that individuals scoring high on solitude generated more negative statements in the interdependent condition and fewer negative statements in independent condition in the current study contrasts with results from Study 2, which found the reverse. The seeming inconsistency in the interactions found between solitude and condition in this set of experiments may reflect what others have found previously; individuals scoring high on the solitude subscale

can be highly invested in both intrapersonal and interpersonal domains (e.g., Alden & Bieling, 1996). These goals may be experienced as conflicting (Higgins, 1989), and to this extent may cause the negative affect reliably reported by these individuals in the literature. Previous investigations have noted that the association between measures of autonomy and interpersonal constructs is equally observed with measures of dependency/sociotropy (Wiggins & Broughton, 1991), although the thematic content of these associations has been found to differ. For example, whereas sociotropy was found to reflect “warm interpersonal themes (e.g., an inability to express anger at others)” (Alden & Bieling, 1996, p. 70), autonomy dimensions reflected “cold themes (e.g., a tendency to distance oneself from others)” (p. 70). Early on, Alden and Bieling (1996) argued the need for more investigation of the social-relational elements of autonomy constructs. The mixed findings from the current studies echo what has been noted in the literature as a lack of conceptual clarity regarding solitude as disinterest in relationships or defensive separation from others (e.g., Frewen & Dozois, 2006a).

The most unexpected Study 3 finding was that the higher rate of allocentric statements in the independent condition was also found for participants scoring higher on the independence dimension of the SAS. However, these individuals also made significantly more idiocentric statements in the independent condition. One possibility is that, for independent participants, the independent prime provided a general opportunity to distinguish oneself on a variety of personal and interpersonal characteristics generally considered desirable. For example, data from Study 1 suggest that although independent individuals prioritized autonomy, interpersonal themes were still quite salient in the content of past life events they generated. These overlaps have been noted elsewhere (e.g., Alden & Bieling, 1996). Given these previous findings, we could have expected that statements made by independent individuals in response to the TST would likely

include allocentric qualities as well as idiocentric ones. Nonetheless, the current findings for allocentric statements with respect to the independence dimension of autonomy run contrary to predictions and were not found in Study 2. Additional studies would be needed to replicate this result.

One limitation of Studies 2 and 3 is that they did not include a neutral control condition. Without a control condition, the direction of these effects is not clear (Cross et al., 2011). In this case, it is not clear whether or not allocentric aspects of sociotropy were enhanced by the independent prime. A control condition would have been useful in establishing a baseline for making different kinds of statements about the self.

The shifts in self-concept content assessed by the TST in the current set of experiments, especially those that were replicated may have important implications for self-theory. According to Beck et al. (2021), the particular situations that individuals face activate different aspects of the self-concept, which can "induce a pattern of activated beliefs regarding the self, the outside world/others and the future" (p. 394). It is the *repeated* encounters with self-relevant situations that are likely to result in (more long-term) change (Beck, 1983). This is consistent with recent theorizing that a central element in the process of self-concept change is cognitive accessibility (e.g., Gore & Tichenor, 2018). According to Gore and Tichenor (2018), "cognitive accessibility leads to self-concept change when the environment contains stimuli that frequently activate a given set of self-relevant aspects" (p. 2). For example, numerous studies find that change in self-concept content reflects change in the content of life events, one's circumstances, relationships, and social roles (e.g., see Gore & Cross, 2014; Gore & Tichenor, 2018 for reviews), and corresponding mood changes (Showers et al., 1998). Similarly, summarizing the literature on personality change, Ardel (2000) writes, "Cumulative changes, which often are due

to interactions with the environment occur over a long period” (p. 396). Moreover, “Gradual but cumulative changes in the social environment are likely to lead to gradual but cumulative changes in the personality, and vice versa” (Ardelt, 2000, p. 402). Accordingly, I argue the studies presented in the current research provide initial support for the idea that when sociotropic individuals, for example, encounter situations that repeatedly activate particular interpersonal aspects of the self in day-to-day life, this should result in self-concept change over time. Future studies over longer periods of time will be needed to investigate how the self-concept changes over time.

There are many cues or elements in the psychological situations we encounter, including those that "prime" us to view ourselves through different interpersonal orientation lenses. In the next chapter, Study 4 presents an initial investigation of individual differences in how situations are interpreted. Study 4 looks at how sociotropic and autonomous individuals subjectively interpret situation descriptions in relation to one component of the self-concept (self-esteem) and examines elements of situations that may be important in situation appraisals. Inspired by methods in cultural psychology, Study 4 includes initial investigations of content elements (participants' interpretations of what the situation is about), source elements (i.e., who is describing the situation) and valence elements (positive or negative situations), using peer-generated descriptions of past life events.

Chapter 5

Study 4

Toward a Co-Construction Model of Sociotropy-Autonomy

Study 2 and 3 found that individual differences in sociotropy and autonomy interacted with the interpersonal orientation primes to produce different patterns of self-concept content and mood, suggesting that shifting the focus of one's orientation to others (e.g., from interdependence to independence) can shift the way an individual spontaneously describes themselves and their mood. Study 4 presents an initial investigation of how sociotropic and autonomous individuals subjectively interpret situation descriptions in relation to self-esteem and elements that may be important in situation appraisals. Study 4 builds on Study 2/3 findings by looking at the relationship between SAS scores and specific elements of situation descriptions that may be important in judgements about whether a situation is self-impacting. In this study, participants completed the SAS, a measure of state mood, and a task called the situation evaluation exercise inspired by Kitayama et al. (1997, Study 1). In this task, participants were presented with a sample of situation descriptions generated by sociotropic and autonomous participants in Study 1 of the current dissertation. Participants were asked to read each situation, imagine the situation was happening to them, and then to make a series of judgments. First, participants were asked to indicate whether the situation would impact their own self-esteem, and then to indicate what life domain they thought was primarily involved in each situation (interpersonal relationships or independence-achievement). I was interested in how individuals scoring higher on sociotropy or autonomy dimensions would subjectively interpret situation content themes. In addition to investigating participants' subjective interpretations of situations, Study 4 borrowed Kitayama et al.'s (1997) collective constructionist theoretical framework that proposes definitions of self-

esteem are collectively constructed by members of a shared cultural context and operationalized one aspect of it. Specifically, their prediction that situation compositions would be perceived as more relevant by members of our own versus other cultural contexts was operationalized in the current study as the frequency with which individuals scoring higher on sociotropy or autonomy judged situations generated by other highly sociotropic and autonomous individuals, respectively, as affecting their own self-esteem. I was interested in whether sociotropic and autonomous individuals would perceive situation descriptions generated by other sociotropic and autonomous individuals, respectively, as more self-impacting than situations generated by others. I was also interested in further examining the relationship between SAS scores and situation valence (positive or negative), and the links between SAS scores and negative mood.

Due to the use of peer-generated situations described by highly sociotropic and autonomous (Study 1) participants in their own words, this method permits a different, more sophisticated way of looking at "person" and "situation" factors proposed by Beck's interactional sociotropy-autonomy model. One thing this study permits that previous studies of sociotropy-autonomy do not, is an examination of participants' subjective interpretations of actual life events described in what should be sociotropic and autonomous individuals' own 'language.' Another thing this method permits that previous sociotropy-autonomy studies do not is an examination of the relationship between participants' SAS scores and the source of stimulus materials (i.e., the writers of the situation descriptions).

This study operationalized one aspect of the collective constructionist framework (i.e., source-relevance). There are several things that would need to be extrapolated from the current study in order to get to this broader theory, however. Since this study is conducted in a lab setting, we don't know how situations would actually be relevant for participants' self-esteem or

how they would "use" them to construct their own self-esteem, as proposed by the collective constructionist theory (Kitayama et al., 1997). Study 4 attempts to present an initial advance in the creation of a *collectively defined* or *co-constructed* model of personality-vulnerability to depression (i.e., sociotropy-autonomy).

Situation Evaluation Exercise: Participant-Classified Content

Past research has generally employed researcher-generated lists of situations that were classified a priori as interpersonal or independence/achievement-related, closely following Beck's original formulations of sociotropy and autonomy (e.g., Allen et al., 1996; Kwon & Whisman, 1998; Robins & Block, 1988). However, researchers have previously argued the importance of studying research participants' own classification of a given situation as *they perceive* it (e.g., Frewen & Dozois, 2006). Additionally, it may be important to examine situations generated by sociotropic and autonomous individuals in their own words since there may be subtle but important differences between researcher-defined situations and research participant views of the self and the world (e.g., Kwon & Whisman, 1998). Instead of a researcher-generated list, Study 4 utilized a list of peer-generated life events sampled from Study 1 participants.

There has been very little research investigating participants' subjective classifications of life events. A study by Frewen and Dozois (2006b) asked participants to classify the life domain perceived as most affected in various situations, selecting from social, independence and achievement categories. Their study found associations consistent with previous studies that used objective (i.e., researcher-generated) standards to categorize events, reporting the expected congruence between sociotropy, autonomy, and the subjective classifications of life events as primarily concerning social and independence or achievement domains, respectively.

Based on previous findings, it was hypothesized that situations subjectively (i.e., participant) classified as related to “interpersonal” domains would more frequently be judged as impacting self-esteem than situations participant-classified as related to “independence-achievement” domains by those scoring higher on sociotropy. It was also hypothesized that situations participant-classified as related to “independence-achievement” domains would more frequently be judged as impacting self-esteem than situations participant-classified as related to “interpersonal” domains by those scoring higher on independence or solitude.

Situation Evaluation Exercise: Researcher-Classified Content

To provide a point of comparison, Study 4 also looked at the content themes of situations classified according to the researcher-generated coding scheme used in Study 1 of the current dissertation. Study 1 findings indicate sociotropy was associated with generating more interpersonal situations than independence-achievement situations that impacted self-esteem, and autonomy was associated with generating more independence-achievement situations than interpersonal situations. This is consistent with the considerable body of literature reporting an association between sociotropy-autonomy and personality-congruent stressors (Coyne & Whiffen, 1995; Neitzel & Harris, 1990; Robins et al, 1995; Sato & McCann, 2002).

Accordingly, it was expected that situations researcher-classified as related to “interpersonal” domains would more frequently be judged as impacting self-esteem than “independence-achievement” situations by those scoring higher on sociotropy. It was also expected that situations researcher-classified as related to “independence-achievement” domains would more frequently be judged as impacting self-esteem than “interpersonal” situations by those scoring higher on independence or solitude.

Situation Source

There has been relatively little study of the correspondence between individual levels of sociotropy and autonomy and the source of situation descriptions as an element that may be related to how individuals assign meaning to situations. However, studies in related areas of research could guide predictions of this kind. The studies reviewed earlier that found a relationship between an individual's level of sociotropy/dependency or autonomy/self-criticism and their parents' levels of sociotropy/dependency or autonomy/self-criticism (e.g., see Kopala-Sibley & Zuroff, 2014 for a review) can be read to suggest the possibility that sociotropic individuals should be more sensitive to the way self-impacting situations are defined by other sociotropic people, and autonomous individuals should be more sensitive to the way other autonomous people define self-impacting situations. In their related study of culture and the self-concept, Kitayama et al. (1997) found that individuals tended to judge situations generated by members of their own culture as more relevant to self-esteem than situations generated by members of other cultures.

Putting past findings together, it was hypothesized that those scoring higher on sociotropy would more frequently judge situations generated by highly sociotropic participants (in Study 1) as affecting self-esteem than situations generated by highly independent participants. It was also hypothesized that those scoring higher on independence would more frequently judge situations generated by highly independent participants (in Study 1) as affecting self-esteem than situations generated by highly sociotropic participants. It was further hypothesized that those scoring higher on solitude would more frequently judge situations generated by high solitude participants (in Study 1) as affecting self-esteem than situations generated by highly sociotropic participants.

Situation Valence

Although valence is one of the dimensions along which the sociotropy and autonomy modes are defined, it has not been comprehensively studied. Findings from Study 1 of the current dissertation were consistent with previous research in this area, which has found a robust association between sociotropy and negative life events (e.g., Flett et al., 1997; Fresco et al., 2001; Frewen & Dozois, 2006b; Kwon & Whisman, 1998; Mazure et al., 2000; Robins & Block, 1988), and lend support to those studies that have suggested independence may act as a buffer against the impact of negative events (e.g., Bieling et al., 2004; Dasch et al., 2008). Past studies, however, have almost exclusively examined negatively valenced events. According to findings from Study 1 of the current dissertation, the independence subscale of the SAS, for instance, was associated with generating more self-esteem increasing situations and fewer self-esteem decreasing situations. It was therefore important in the current study to examine both negatively and positively valenced events. Study 4 utilized the original participant classifications of situations generated under self-esteem increasing and decreasing instructions in Study 1. To recap briefly, in Study 1 participants were instructed to generate descriptions of past life events that they perceived to have *increased* their self-esteem and events that *decreased* their self-esteem.

It was therefore hypothesized that those scoring higher on sociotropy would more frequently judge self-esteem decreasing situations as affecting self-esteem than self-esteem increasing situations; and those scoring higher on independence or solitude would more frequently judge self-esteem increasing situations as affecting self-esteem than self-esteem decreasing situations.

Mood

Given that Studies 1 to 3 of the current dissertation found a positive correlation between negative mood and SAS sociotropy and solitude subscales, and the robust correlation between the personality variables and the BDI-II, it was predicted that sociotropy and solitude would be positively correlated with negative mood. Study 4 additionally continued to explore the independence subscale of the SAS in relation to negative mood.

Method

In Study 4, participants were presented with peer-generated situation descriptions sampled from participants scoring high on SAS subscales in Study 1 of the current dissertation. Study 4 participants were asked to provide a series of judgements about each situation, and to complete the SAS and a measure of mood.

Participants

Participants were recruited through the URPP at York University for a 1-hour laboratory study. All participants received 1.0 credit toward their Introductory Psychology course grade. The final sample of 105 participants had a mean age of 21.0 ($SD= 5.2$), ages ranged from 17 to 51, the sample was 76% female, with 80 females and 23 males (gender was not indicated for 2 participants).

The demographic make-up of the current sample was similar to the sample used in Study 1. The most common cultural identification reported by participants was Canadian/ European ($n = 37$; 35%), followed by South/Southeast Asian ($n = 22$; 21%), Middle Eastern ($n = 16$; 15%), African and Caribbean/West Indian ($n = 20$; 19%), East Asian ($n = 4$; 4%), and Central Asian ($n = 1$; 1%). On a scale of $1 = Not at all$ to $7 = Very much$ for the degree to which participants identified with their primary cultural group reported above, the mean score for this sample was 5.6 ($SD = 1.39$) and the mode was 7. Fifty-nine percent of the current sample reported

identifying with a secondary cultural group as well. Of these, Canadian/ European was the secondary cultural group identified with most frequently ($n = 29$; 27.6%). Finally, 68% of the current sample's relationship status was single, followed by the 23% who reported being in a committed relationship but not married or common-law, and the remainder of the sample was distributed among married, common law, separated, and divorced statuses.

Procedure

Participants arrived at the laboratory in small groups (2-6 participants), and received a short presentation orienting them to the study, followed by a written consent form (Appendix A). Upon providing consent, participants received a questionnaire package. One of the exercises included in participants' questionnaire packages was the situation evaluation exercise, which asked participants to evaluate a list of situations (generated by participants in Study 1) by imagining whether each situation would impact their own self-esteem if it were to occur (see Appendix I for full situation evaluation exercise measure). The situation evaluation exercise then instructed participants to indicate whether they thought each situation primarily involved "interpersonal concerns (related to other people, relationships)" or "personal concerns (related to independence, mobility, achievement)." Participants also completed the SAS, and negative mood was assessed using the POMS. The above study measures were presented in randomized order. This was followed by a brief demographics questionnaire and a mood-boosting exercise prior to completing the study, which asked participants to rate a series of cartoon comics for humorousness. Participants were then individually verbally debriefed and provided with a written debrief form (Appendix B).

Measures

A brief overview of the measures included in the questionnaire package is presented in Table 17 below. Measures i. to iv. were administered in randomized order, followed by demographic questions and the mood-boosting exercise, in this order.

Table 17

List of Study 4 Measures Administered

Measure	Description
i. Situation evaluation exercise	A measure of judgements about situations that presents a series of 120 situations (sampled from participants in Study 1) and participants indicate whether or not each situation would affect their self-esteem, and classify content themes for each
ii. Revised Sociotropy-Autonomy Scale (SAS)	Measure of trait sociotropy and autonomy that presents a series of statements and participants indicate extent to which each statement is self-descriptive
iv. Profile of Mood States (POMS)	Questionnaire of current mood states
vi. Brief Demographic Questionnaire	Age, gender, cultural identity, relationship status
vii. Mood-boosting Exercise	Series of cartoon comics that participants judged for humorousness, intended to provide a mood-boost prior to leaving study

Situation Evaluation Exercise

Participants were presented with a list of 120 situations and the following instructions: “Read each scenario carefully as though you are experiencing that situation yourself. Answer from YOUR perspective when you are imagining the scenario – *not the perspective of anyone else*. Check off/circle your answers below. Please work through the items fairly quickly.” For

each situation, participants were asked to provide several judgements. First, participants were asked to indicate whether the situation would affect their own self-esteem, if it happened to them, by checking off yes/no for each situation. If the participant checked off "yes," they were asked to choose between "independent/achievement" or "interpersonal" concerns to indicate what the primary concern is in that situation (see Appendix I for full measure).

Revised Sociotropy-Autonomy Scale

The current study employed the 59-item revised SAS (Clark et al., 1995), containing one sociotropy and two autonomy subscales: 1) independence and 2) solitude.

Profile of Moods States

The 65-item POMS (McNair et al., 1971) mood state questionnaire was used to assess state mood. The negative mood subscale of the POMS was used to assess negative mood.

Demographics

After presentation of the study measures listed above, participants completed a brief demographic questionnaire using checklist and fill-in-the-blanks asking participants to indicate age, gender, cultural identity, and relationship status.

Mood-boosting Exercise

The last exercise appearing in participants' questionnaire package asked participants to rate a series of cartoon comics on a scale from 1 = *Not at all funny* to 7 = *Very funny*.

Situation Sampling: Constructing the Situation Evaluation Exercise

Following Kitayama et al. (1997, Study 1), items selected for inclusion in the situation evaluation exercise were sampled from situations generated by participants in Study 1 of the current dissertation. Specific situation sampling procedures were adapted in the current study in order to be applied to personality dimensions sociotropy and autonomy. Given that sociotropy

and autonomy scores (assessed using the SAS) vary on a continuum (from 0-4), situations were sampled from those participants in Study 1 who scored in the top quartile for sociotropy, independence, or solitude, with a mean score of 2.0 or greater (i.e., “Describes me 50% or more of the time”). Means, standard deviations and other descriptive statistics, as well as BDI-II and POMS negative mood scores for the top quartile subsets are provided in Appendix J. There was considerable overlap between SAS dimensions in the top quartile subsets (approximately 75% of these subsets scored in the top quartile on more than one SAS subscale). This prevalence of “mixed” types has been observed in previous studies (Robins, 1990; Solomon & Haaga, 1993; Weishaar & Beck, 2006). Out of the 1,244 total situations generated by Study 1 participants, 774 situations were generated by those scoring in the top quartile on (at least one) sociotropy, independence, or solitude dimensions. From the 774 situations generated by participants scoring in the top quartile(s), 40 situations were randomly sampled from each of the sociotropy, solitude, independence subsets (self-esteem increasing and decreasing situations were combined for this pool of items). Each group of 40 situations sampled equally from the top quartile sociotropy, independence, and solitude subsets were not necessarily mutually exclusive to that subset, meaning that situations selected from one subset could have been generated by an individual scoring in the top quartile on more than one personality dimension. For example, 20 out the 40 situations randomly sampled from participants scoring in the top quartile for sociotropy for inclusion in the situation evaluation exercise were generated by participants who also scored in the top quartile on at least one other personality dimension. In total, 120 items were selected for the situation evaluation exercise measure. Following Kitayama et al. (1997), the final 120 situations selected were edited to (a) contain only one episode, (b) omit any extra phrasing indicating enhancement or reduction of self-esteem (e.g., “My self-esteem increased when”), (c)

omit specific names, places, or dates, and where suitable, specific titles were edited to make situations more generalizable (e.g., “swim coach” was changed to “coach”). In addition, situations that used direct quotations (e.g., “My mother always says to me, “Chin up sunshine””) as well as situations that included other personal identifying information were excluded to ensure participant anonymity.

Sixty-eight out of the total 120 situations (56.7%) contained content that was researcher-coded as “highly interpersonal” (i.e., ‘5’ on a scale of *1 = highly independence-achievement* to *5 = highly interpersonal*), whereas 32 situations (16%) were coded as highly “independence-achievement” (‘1’ on a scale of *1 = highly independence-achievement* to *5 = highly interpersonal*). The remaining situations were distributed among scores between 2 and 4, according to the original researcher-generated categories employed in Study 1. Overall, situation evaluation exercise items were predominantly (65.8%) interpersonal-related (i.e., coded as either ‘4’ or ‘5’). This sampling was consistent with the proportion of interpersonal to independence-achievement-related content originally generated by participants in Study 1 of this dissertation. Roughly equal numbers of self-esteem increasing and self-esteem decreasing situations (61 and 59 situations, respectively) were randomly sampled for the situation evaluation exercise measure administered in the current study.

Independence-Achievement and Interpersonal Content Themes

Each of the 120 items of the situation evaluation exercise was categorized as containing *interpersonal* or *independence-achievement* themes according to the coding scheme applied to the situations in Study 1. For example, situations coded as “1” highly independent/achievement in Study 1 were classified as “1” highly independent/achievement in the current study. Additionally, participants in the current study assigned a content theme to situations they thought

would impact their self-esteem, choosing between primarily "independence-achievement" and "interpersonal" categories. Situation valence categories (i.e., self-esteem decreasing, increasing) were assigned based on how they were originally generated by participants in Study 1. For example, any situation that was generated under "self-esteem decreasing" instructions in Study 1, was categorized in the current study as self-esteem decreasing. Study 4 examined the situation source for situation evaluation exercise items judged as self-impacting by looking at the correspondence between the SAS score of participants in the current study and the SAS score of the Study 1 participants who generated those situations. The situation "source" thus refers to the SAS sociotropy, independence, or solitude score of the participant who generated the situation in Study 1. The dependent variables in Study 4 were the frequency counts of the different kinds of situations (in terms of participant/researcher-classified content, source, and valence) that participants endorsed, by checking off "yes" to indicate the situation would affect their own self-esteem if it happened to them.

Analysis plan. Study 4 variables are outlined in Table 18 below. Descriptive statistics and correlations among study scales are presented first (Table 19), followed by results from regression models examining the relationship between SAS scores and the dependent variable (Tables 20a-23c). Correlation analyses were conducted in order to examine relationships between SAS scores and negative mood. Regression analyses were conducted in order to examine the relationship between SAS score and the frequency with which different kinds of situations were judged as self-impacting. Content was examined first in terms of participant-classified content categories. The categorical participant-classified content dependent variable was created by tallying for each participant the total number of situations classified as "independence-achievement" and the total number of situations classified as "interpersonal" for

those situations judged as self-impacting. Content was next examined in terms of the researcher-generated categories described above. For ease of comparison, only those situations researcher-coded as "1 = highly independence-achievement oriented" and "5 = highly interpersonal" were included in regression analyses. The categorical researcher-classified content dependent variable was created by tallying for each participant the total number of independence-achievement situations and the total number of interpersonal situations that were judged as self-impacting. To deal with the unequal random sampling of interpersonal situations ($n = 68$) and independence-achievement situations ($n = 32$), raw frequency counts of self-impacting situations were converted into percentages (e.g., the number of interpersonal situations judged as self-impacting out of the 68 total possible interpersonal items in the situation evaluation exercise). This was done for the frequency counts for all dependent variables, except for participant-classified content (these classifications are subjective and there are no proportions known a priori). The (continuous) source dependent variable was created by tallying for each participant the total number of situations judged as self-impacting that were generated by a sociotropic, independent, or high solitude source, and then converting this value into a percentage as described directly above. Finally, the (continuous) valence dependent variable was created by tallying for each participant the total number of self-esteem decreasing situations and the total number of self-esteem increasing situations judged as self-impacting, and then converting it into a percentage. In sum, the participant-classified situation content dependent variable was examined as a discrete category, and researcher-classified situation content, source, and valence dependent variables were examined as continuous data (i.e., percentages).

Regression analyses compared the relationship between SAS score and the frequency with which each of the two kinds of content categories (i.e., highly independence-achievement

vs. highly interpersonal); source categories (e.g., sociotropic-generated vs. independent-generated); and valence categories (i.e., self-esteem decreasing vs. increasing) were judged as self-impacting. To account for correlated dependent variables (since the frequencies being compared come from the same participant), Generalized Estimating Equations (GEE) were conducted. The type of GEE model was determined by the characteristics of the dependent variable (i.e., count or continuous). GEE regression does not assume normally distributed errors or normally distributed dependent variable (Ghisletta & Spini, 2004). Accordingly, GEE with identity link (normal regression model) was used to examine continuous dependent variables (i.e., percentage of researcher-classified content, source, and valence of situations endorsed) without the need to transform non-normally distributed data (Newsom, 2021). Poisson regression models for count data were used to examine the count dependent variable (i.e., categorical participant-classified content). To set up regression models, the categories being compared (e.g., independence-achievement vs. interpersonal) were dummy-coded (“1”, “2”) to create a category index variable, which was entered as the within-person factor in a series of regression models that included one of the three personality variables (SAS sociotropy, independence, or solitude) as the predictor. Finally, an interaction term was created (personality variable x category index) to permit the comparison of the two categories of frequencies (e.g., independence-achievement vs. interpersonal) that were generated as a function of the personality variable. Each model consisted of: $Y = \text{intercept} + \text{personality variable} + \text{category index} + \text{personality variable} \times \text{category index}$. This procedure was used to analyze each of the dependent variables (i.e., participant/researcher-classified situation content, source, and valence of the content). Four sets of regression analyses were thus conducted to examine the first four dependent variables listed in Table 18 directly below. Separate models were run for each

personality variable (SAS sociotropy, independence, solitude). The results of GEE models are presented in a series of tables (see Tables 20a to 23c), one for each personality variable.

Table 18

Overview of Study 4 Variables

Independent variables	Dependent variables
Sociotropy	Participant-classified content (frequency of independence-achievement vs. interpersonal)
Independence	Researcher-classified content (frequency of independence-achievement vs. interpersonal)
Solitude	Source (frequency of sociotropic vs. independent-generated; sociotropic vs. solitude-generated)
	Valence (frequency of self-esteem decreasing vs. increasing)
	Negative mood

Note. Dependent variable in bold represents frequency counts and was analyzed using regression. Non-bold variables represent continuous scores and were analyzed using either regressions or correlations.

Results

General Sample Characteristics

Descriptive statistics and correlations among personality variables and negative mood are presented in Table 19 below. To establish the general correspondence between the current sample and the sample reported in Study 1 of the current dissertation, values for Study 1 variables are also provided in Table 19 (in brackets). A more detailed description of Study 4 variables is provided in Appendix K. As can be seen in Table 19, means, standard deviations, and other descriptive statistics for Study 4 variables are very similar to what was found in Study 1. On average, the current sample reported slightly less negative mood on the Profile of Moods Scale compared to the Study 1 sample ($M = .7$, $SD = .57$ and $M = 1.11$, $SD = .77$, respectively).

Situation Evaluation Exercise: Participant and Researcher-Classified Content

To recap briefly, the situation evaluation exercise measure was constructed by randomly sampling situations generated by participants in Study 1, and Study 4 participants evaluated the sample of situations by indicating if each situation would impact personal self-esteem (yes/no). With respect to participants' subjective classifications of situations, on average participants classified the majority of the situations that were judged to be self-impacting as related to "independence-achievement" domains ($M = 64.8, SD = 15.85$) vs. "interpersonal" domains ($M = 33.6, SD = 13.0$); $t(104) = 14.1, p = .000$.

With respect to content according to researcher-classified themes, on average, participants judged a higher percentage of highly independence-achievement situations than highly interpersonal situations as events that would be self-impacting ($M = 85.6, SD = 14.0$; $M = 80.8, SD = 15.5$); $t(99) = 5.2, p = .000$. There were small gender differences; overall, female participants judged a higher percentage of highly independence-achievement situations as self-impacting ($M = 86.5, SD = 13.4$) compared to male participants ($M = 78.7, SD = 18.7$); $t(99) = 2.24, p = .027$; as well as a higher percentage of highly interpersonal situations as self-impacting ($M = 83.0, SD = 14.2$) compared to male participants ($M = 72.7, SD = 18.1$); $t(96) = 2.81, p = .006$.

Situation Source

Situation evaluation exercise situations were sampled equally from high (top quartile) sociotropy, independence, and/or solitude sources (40 situations from each). However, as noted earlier, a considerable proportion of this subset of situations would be considered originating from "mixed" sociotropy-autonomy personality types. As a result, mutually exclusive categories were imposed for the current analysis of source so that only situations that were written by *either*

a high sociotropy ($n = 20$ situations) or high independence ($n = 20$ situations) or high solitude source ($n = 24$ situations) were included for analyses pertaining to source (situations written by sources scoring in the top quartile on more than one SAS subscale were excluded). On average, situations written by (mutually-exclusive) high sociotropy or high independence sources were judged as self-impacting at roughly equal rates ($M = 81.4$, $SD = 16.0$ and $M = 80.4$, $SD = 18.54$; $t(100) = .823$, $p = .412$); a higher percentage of situations written by high solitude sources were judged as self-impacting than situations written by high independence sources ($M = 83.6$, $SD = 17.6$ and $M = 80.3$, $SD = 18.4$; $t(102) = 2.81$, $p = .006$). On average, female and male participants judged roughly equal percentages of situations written by high sociotropic sources as self-impacting ($M = 83.0$, $SD = 14.8$ and $M = 75.5$, $SD = 19.0$; $t(28.7) = 1.72$, $p = .097$); female participants judged a higher percentage of situations written by high independence sources ($M = 82.3$, $SD = 17.8$ and $M = 72.8$, $SD = 19.4$; $t(100) = 2.2$, $p = .030$) and high solitude sources ($M = 85.8$, $SD = 15.6$ and $M = 74.8$, $SD = 21.5$; $t(29.1) = 2.3$, $p = .030$) as self-impacting compared to male participants.

Situation Valence

In general, participants judged self-esteem increasing situations as slightly more self-impacting than self-esteem decreasing situations ($M = 85.4$, $SD = 14.3$ and $M = 80.1$, $SD = 17.5$; $t(99) = 4.64$, $p = .000$). On average, female and male participants judged roughly equal percentages of self-esteem increasing situations as self-impacting ($M = 86.6$, $SD = 13.0$ and $M = 80.5$, $SD = 18.2$); $t(96) = 1.78$, $p = .078$; female participants judged a higher percentage of self-esteem decreasing situations as self-impacting than male participants ($M = 83.2$, $SD = 14.8$; $M = 69.2$, $SD = 21.1$); $t(99) = 3.6$, $p = .000$. On average then, the current sample displayed

characteristics similar to the sample reported in Study 1 with respect to the content and valence of situations emphasized.

Correlation Analyses

The results did not support the hypothesis that sociotropy would be correlated with negative mood in the current sample ($r = .09, p = .31$). As hypothesized, there was a positive correlation between solitude and negative mood ($r = .21, p = .03$), and independence was not significantly related to negative mood ($r = -.11, p = .27$). Note that in Study 4, as in Study 1, there was a positive correlation between sociotropy and the solitude dimension of autonomy (Study 4: $r = .28, p = .002$; Study 1: $r = .20, p = .041$, respectively).

Table 19*Correlations and Descriptive Statistics for Study 4 (and Study 1 Variables)*

Variables	1	2	3	4	<i>M</i>	<i>SD</i>	Min-Max	Skewness
1. Sociotropy					2.30(2.44)	.63(.61)	.79-3.55(.90-3.72)	-.232(-.31) .91(.89)
2. Independence	-.19 (-.15)				2.70(2.78)	.46(.47)	1.47-3.71(1.24-3.76)	-.248(-.353) .76(.75)
3. Solitude	.20 (.28)	.18(.40)			1.57(1.70)	.52(.55)	.46-3.15(.31-3.15)	.465(.435) .70(70)
4. Negative mood	.09(.31)	-.11(-.02)	.21 (.18)	–	.70(1.11)	.57(.77)	.06-2.73(.06-3.77)	1.37(1.015) .95(.97)

Note. Values in bold are significant at $p < .05$ (2-tailed).

Values for Study 1 variables are in brackets.

Regression Analyses

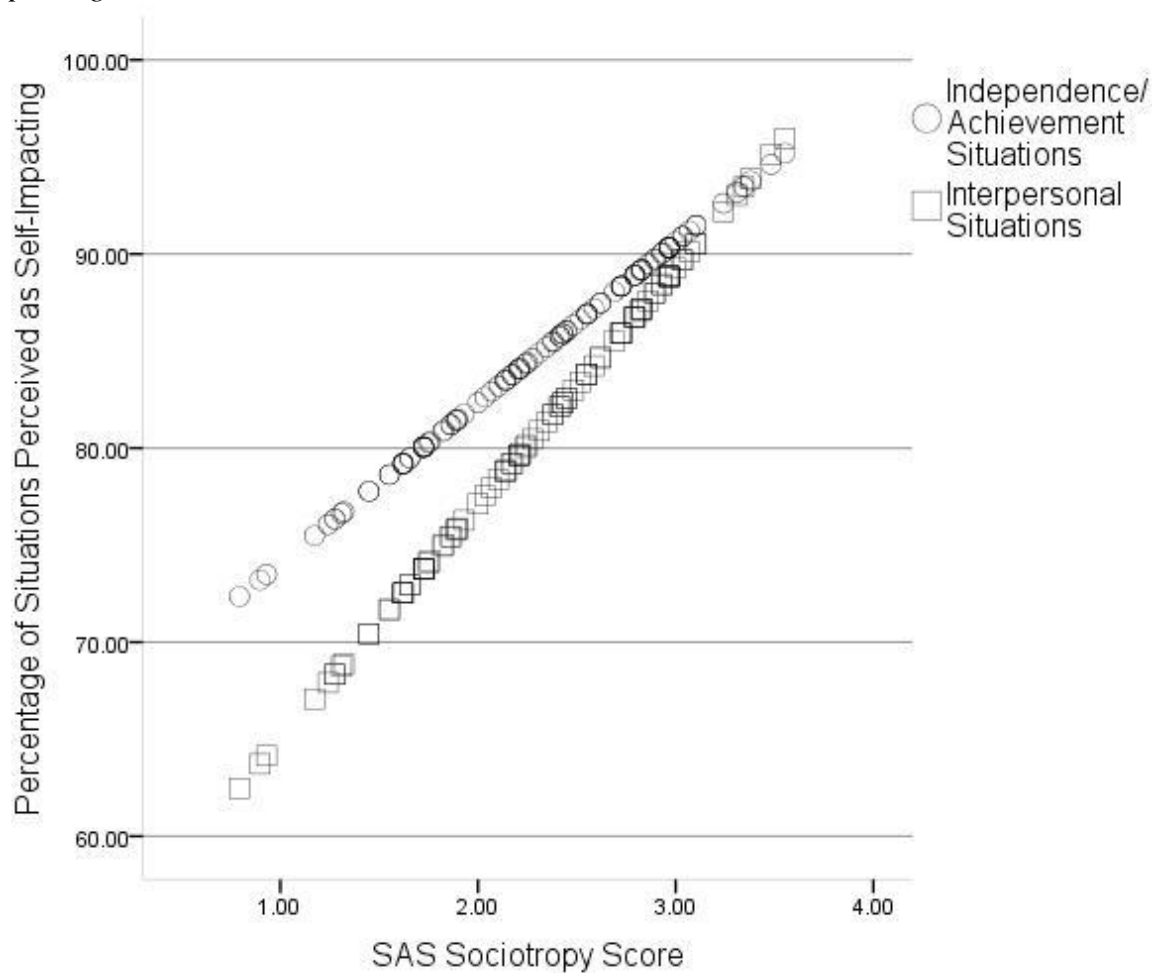
Tables 20a to 23c provide the results of normal regression models for continuous data (i.e., percentages of researcher-classified content, source, and valence of the situations endorsed) and Poisson regression models for count data (i.e., categorical participant-classified content of situations endorsed). Regressions compared the relationship between SAS score and the frequency with which different kinds of situation content (independence-achievement vs. interpersonal), valence (self-esteem decreasing vs. increasing), and source (sociotropic vs. independent; and sociotropic vs. solitude) were judged as self-impacting. Note again, the interaction term reported in the tables was used to permit the comparison of the two categories of frequencies (e.g., independence-achievement vs. interpersonal) that were endorsed by each participant as a function of the personality variable. For completeness of reporting, unstandardized slope coefficients (*B*) and standard errors (*SE*) are presented in the tables for each variable, but note also, they should not be interpreted as simple slopes: the personality predictor (e.g., sociotropy) must be interpreted in relation to the two categories of the dependent variable being compared in GEE analysis (i.e., by graphing the "interaction"). Simple slopes, where relevant, are illustrated in the figures presented throughout.

Unexpectedly, the second study hypothesis, that sociotropy, independence, and solitude would predict how participants would subjectively classify the content of self-impacting situations was not supported by the current data ($\chi^2 = .013(1), p = .454$; $\chi^2 = .138(1), p = .356$; $\chi^2 = .000(1), p = .494$, respectively; Tables 20a-20c). The results supported the third hypothesis with respect to researcher-classified situation content. As expected, it was found that those scoring higher on sociotropy judged a significantly greater percentage of interpersonal situations vs. independence-achievement situations as self-impacting ($\chi^2 = 4.00(1), p = .023, R^2 = 0.44$;

Table 21a). The figures provided below illustrate significant interactions presented in the unit of the dependent variables (i.e., percentages). As can be seen in Figure 10a, at lower levels of sociotropy, participants judged a higher percentage of independence-achievement situations vs. interpersonal situations as self-impacting. At high levels of sociotropy ($M > 3.30$), participants judged a slightly higher percentage of interpersonal vs. independence-achievement situations as self-impacting.

Figure 10a

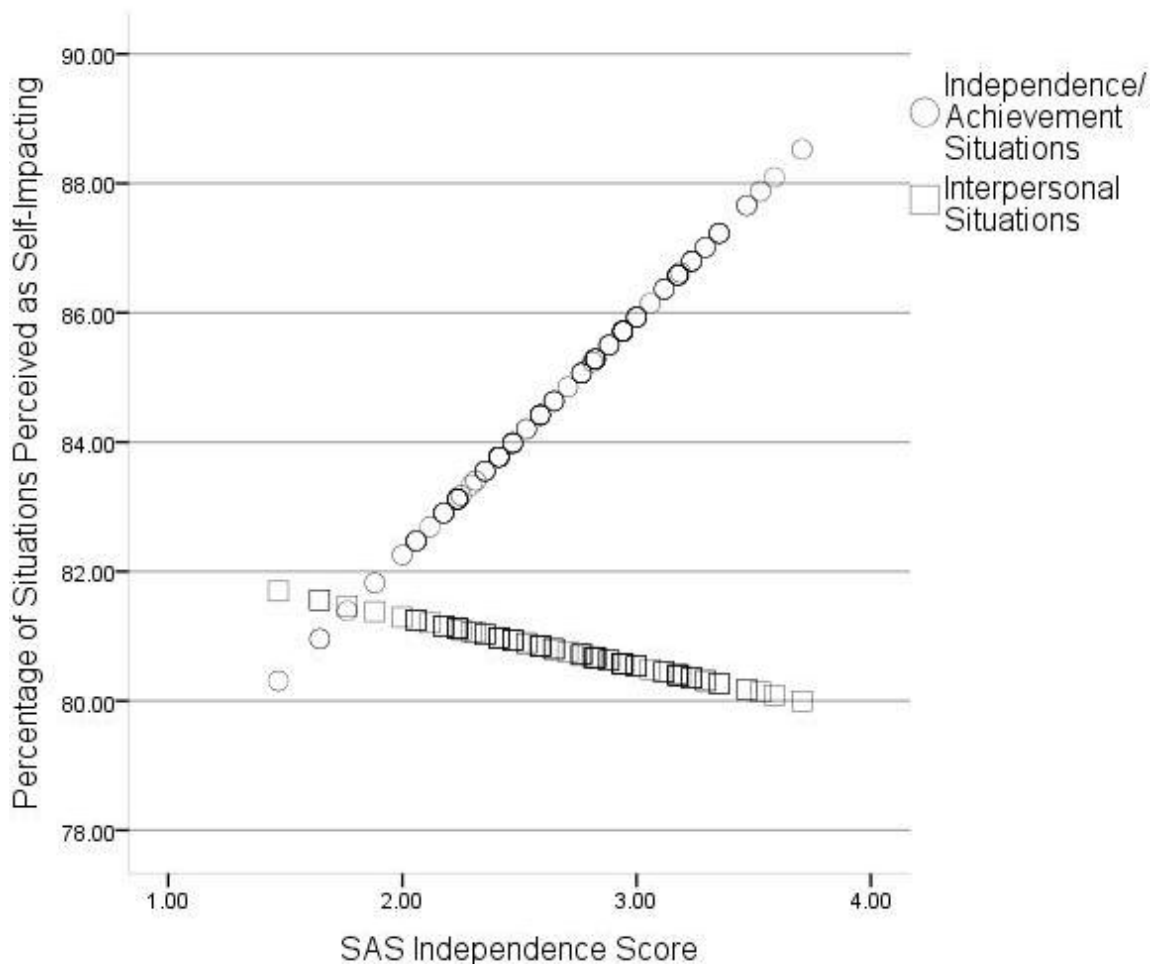
Simple Slopes of Sociotropy by Researcher-Classified Content Category on Percentage of Self-impacting Situations



Conversely, those scoring higher on independence judged a significantly higher percentage of independence-achievement situations vs. interpersonal situations as self-impacting ($\chi^2 = 4.30(1)$, $p = .02$, $R^2 = 0.16$; Table 21b). As can be seen in Figure 10b, as independence increases, the percentage of independence-achievement situations judged as self-impacting increases while the percentage of interpersonal situations judged as self-impacting decreases. For example, with a one unit increase in independence from 2.0 to 3.0, the percentage of independence-achievement situations judged self-impacting increases by 4% (or 1.28 situations). Contrary to what was expected, solitude did not predict the percentages of different content themes that were judged as self-impacting ($\chi^2 = .182(1)$, $p = .335$; Table 21c).

Figure 10b

Simple Slopes of Independence by Researcher-Classified Content Category on Percentage of Self-impacting Situations



The results did not support the fourth hypothesis that Study 4 participants' SAS scores would be differentially associated with the sources of situations judged as self-impacting (see Tables 22a-22c). A personality-congruent match between the individual evaluating the situation and the situation source was not found: those scoring higher on sociotropy in the current study did not judge a higher percentage of sociotropic-generated situations as self-impacting compared to independent-generated situations ($\chi^2 = .625(1)$, $p = .215$); those scoring higher on independence did not judge a greater percentage of independent-generated situations as self-

impacting compared to sociotropic-generated situations ($\chi^2 = .118(1)$, $p = .366$); and those scoring higher on solitude did not judge a greater percentage of solitude-generated situations as self-impacting compared to sociotropic-generated situations ($\chi^2 = .045(1)$, $p = .416$). Exploratory correlations revealed a positive correlation between sociotropy in this sample and the number of situations judged self-impacting from all 3 sources: sociotropic sources ($r = .39$, $p = .000$), independent sources ($r = .40$, $p = .000$), and solitude sources ($r = .47$, $p = .000$). Independence scores in this sample on the other hand, were not correlated with situation sources: independent ($r = .024$, $p = .811$), solitude ($r = .01$, $p = .91$), or sociotropic ($r = .006$, $p = .955$), nor were solitude scores ($r = -.02$, $p = -.019$; $r = .004$, $p = .968$; $r = .024$, $p = .815$, respectively). A closer examination of the content of situation evaluation exercise items showed that situations generated by highly independent sources often (75%) described personal autonomy in the context of other people. Sample situations of this kind included, “I got a promotion at work faster than most people,” and “Knowing what I’m worth and not letting guys treat me like an object.”

Finally, with respect to the fifth study hypothesis for valence, while sociotropy did significantly predict the percentage of self-esteem decreasing vs. increasing situations judged self-impacting, it was not in the hypothesized direction ($\chi^2 = 2.78(1)$, $p = .048$, $R^2 = 0.445$; Table 23a). As can be seen in Figure 11, those scoring lower on sociotropy judged a higher percentage of self-esteem increasing situations as self-impacting compared to self-esteem decreasing situations. At high levels of sociotropy ($M > 3.4$), participants also judged a slightly higher percentage of self-esteem increasing vs. decreasing situations as self-impacting. Contrary to hypotheses, those scoring higher on independence or solitude did not judge a higher percentage

of either self-esteem increasing or self-esteem decreasing situations as self-impacting ($\chi^2 = .164(1), p = .343$; $\chi^2 = .610(1), p = .218$, respectively; Table 23b and 23c).

Figure 11

Simple Slopes of Sociotropy by Valence Category on Percentage of Self-impacting Situations

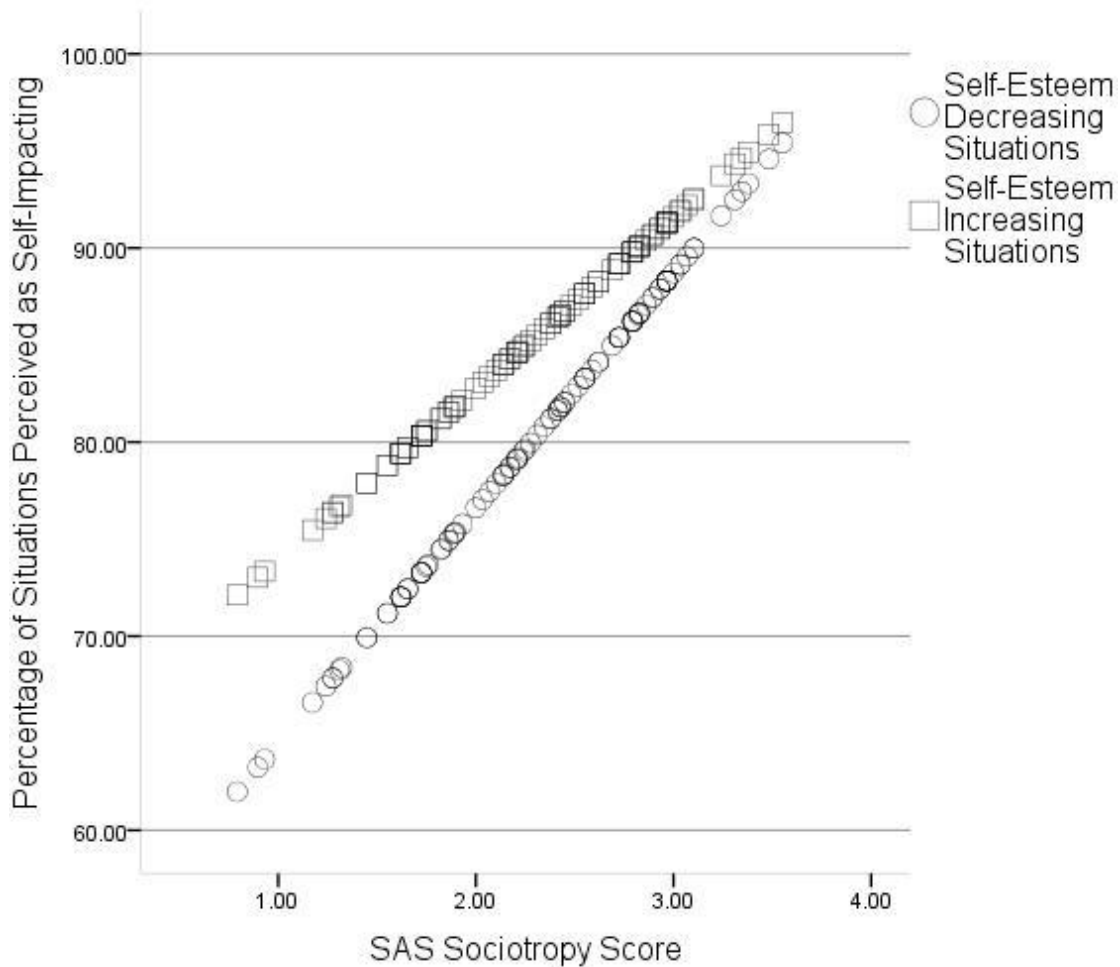


Table 20a*Results from GEE with Sociotropy Predicting Participant-Classified Situation Content*

Regression Predictor	B	SE	Wald χ^2	df	p
Sociotropy	.134	.065	20.38	1	.000
Content Category	.634	.212	9.00	1	.002
Content Category x Sociotropy	.009	.082	.013	1	.454

Table 20b*Results from GEE with Independence Predicting Participant-Classified Situation Content*

Regression Predictor	B	SE	Wald χ^2	df	p
Independence	-.005	.076	.103	1	.374
Content Category	.557	.274	4.12	1	.021
Content Category x Independence	.037	.099	.138	1	.356

Table 20c*Results from GEE with Solitude Predicting Participant Participant-Classified Situation Content*

Regression Predictor	B	SE	Wald χ^2	df	p
Solitude	.006	.068	.021	1	.442
Content Category	.658	.135	23.67	1	.000
Content Category x Solitude	-.001	.083	.000	1	.494

Table 21a*Results from GEE with Sociotropy Predicting Researcher-Classified Situation Content*

Regression Predictor	B	SE	Wald χ^2	df	p
Sociotropy	12.14	1.86	30.12	1	.000
Content Category	12.94	4.90	6.98	1	.004
Content Category x Sociotropy	-3.86	1.94	4.00	1	.023

Table 21b*Results from GEE with Independence Predicting Researcher-Classified Situation Content*

Regression Predictor	B	SE	Wald χ^2	df	p
Independence	-.760	3.19	.239	1	.313
Content Category	-7.90	6.14	1.66	1	.10
Content Category x Independence	4.43	2.14	4.30	1	.02

Table 21c*Results from GEE with Solitude Predicting Researcher-Classified Situation Content*

Regression Predictor	B	SE	Wald χ^2	df	p
Solitude	-.006	.03	.008	1	.464
Content Category	.028	.035	.654	1	.210
Content Category x Solitude	.008	.02	.182	1	.335

Table 22a*Results from GEE with Sociotropy Predicting Sociotropic vs. Independent Situation Source*

Regression Predictor	B	SE	Wald χ^2	df	p
Sociotropy	11.48	2.23	26.01	1	.000
Source Category	4.57	4.60	.988	1	.16
Source Category x Sociotropy	-1.48	1.87	.625	1	.215

Table 22b*Results from GEE with Independence Predicting Independent vs. Sociotropic Situation Source*

Regression Predictors	B	SE	Wald χ^2	df	p
Independence	.936	3.57	.027	1	.435
Source Category	3.13	5.97	.276	1	.300
Source Category x Independence	-.737	2.14	.118	1	.366

Table 22c*Results from GEE with Solitude Predicting Solitude vs. Sociotropic Situation Source*

Regression Predictors	B	SE	Wald χ^2	df	p
Solitude	.137	3.10	.026	1	.436
Source Category	-3.15	4.60	.470	1	.247
Source Category x Solitude	.591	2.78	.045	1	.416

Table 23a*Results from GEE with Sociotropy Predicting Situation Valence*

Regression Predictor	B	SE	Wald χ^2	df	p
Sociotropy	8.83	1.93	33.03	1	.000
Valence Category	-12.73	5.25	5.89	1	.008
Valence Category x Sociotropy	3.29	1.97	2.78	1	.048

Table 23b*Results from GEE with Independence Predicting Situation Valence*

Regression Predictor	B	SE	Wald χ^2	df	p
Independence	1.11	3.17	.042	1	.42
Valence Category	-2.54	6.42	.156	1	.347
Valence Category x Independence	-.96	2.38	.164	1	.343

Table 23c*Results from GEE with Solitude Predicting Situation Valence*

Regression Predictor	B	SE	Wald χ^2	df	p
Solitude	.187	1.53	.037	1	.424
Valence Category	-3.18	2.23	2.04	1	.08
Valence Category x Solitude	-1.0	1.28	.610	1	.218

Discussion

Judgements about the kinds of situation content that would affect self-esteem by those scoring higher on sociotropy and independence mirrored the kinds of situations that sociotropic and independent participants generated in Study 1. This replicates previous studies that found links between sociotropy-autonomy and personality-congruent life stressors. Importantly, whereas some previous studies have reported that autonomy may not interact with negative achievement events (e.g., Coyne & Whiffen, 1995; Grondin et al., 2011), Study 1 and Study 4 found a clear association between the independence subscale of autonomy and judgements about the significance of independence-achievement-related situations for self-esteem, both in terms of actual past life events generated and perceptions about the impact of prospective situations for self-esteem, although independence may not be directly related to depression symptoms or negative mood. At least this appears to be the case according to the researcher-generated coding scheme for classifying situations. This data suggests that participants may have subjectively interpreted the content of situations in a different way, however. When asked what domains were emphasized in each situation, Study 4 participants reported that they viewed most of the self-impacting situations as dealing with independence, mobility, and/or achievement domains, even when SAS personality scores were accounted for.

Study 4 findings build on Studies 1 to 3 and the existing literature in several ways. First, the current findings suggest that the tendency of sociotropic individuals to focus on interpersonal events may be only in part due to biased recall, as some researchers have previously argued (Flett et al., 1997). Flett et al. (1997) suggest the links between sociotropy, self-reported negative interpersonal experiences and distress may be due to a cognitive-affective style that makes negative interpersonal events more salient, leading to a

higher perceived frequency of these types of events. In other words, sociotropic individuals simply have faster recall of these kinds of events because they are relatively accessible in memory. Another possibility suggested by the current study results is that sociotropy and autonomy shape an individual's beliefs and expectations about prospective life events. Study 4 results suggest that in addition to focusing on past interpersonal situations, individuals scoring higher on sociotropy also tend to expect that interpersonal situations would impact their self-esteem if they were to experience them. Similarly, this match between expectations about prospective situations and salient past life events was also found for individuals scoring higher on independence in Study 4.

Second, Study 4 provides one of the first comparisons between 'objective' (i.e., researcher-classified) and 'subjective' (i.e., participant-classified) methods for categorizing life experiences along dimensions conceptually relevant to sociotropy and autonomy. Unlike Frewen and Dozois (2006b), who found that participants' classifications closely matched objective standards for classifying events, the current findings suggest there can be little agreement between the two. Some researchers have previously questioned how closely objective systems of classification resemble the way research participants subjectively perceive situations (e.g., Kwon & Whisman, 1998). Whereas the majority of situations in the current study were classified by the author and independent coder as related to relationships and other people, on average participants in this sample classified the same events as containing mostly independence and achievement themes. One explanation is that objective standards for classifying events do not match how sociotropic and autonomous individuals perceive themselves and the world. Another possibility is that forcing participants in the current study to select between two discreet categories ('independence-achievement-related' or 'interpersonal-related') is problematic. As

noted earlier, situations typically contain elements of both. Concerns about autonomy may be particularly salient for undergraduate students, especially in the context of participating in a research study at the university. There is a relative lack of attention to the issue of subjective experience in this area of research. Additional research is needed to examine the extent to which there is an overlap between researcher and participant classifications of events along interpersonal dimensions, and to develop the measurement tools needed to more accurately assess participants' subjective interpretations of situations.

Third, the current study was designed to test novel hypotheses about elements of situation descriptions that may be important in judgements about whether a situation is self-impacting. The hypothesis that individuals scoring higher on sociotropy or autonomy subscales of the SAS would evaluate situations generated by other sociotropic or autonomous individuals, respectively, as more self-impacting – beyond the information processing bias that we expect from personality differences, has not been examined previously to my knowledge. It was surprising that participants in Study 4 did not demonstrate a bias for one type of situation source over another. One possibility is that this aspect of a collectively defined model of sociotropy-autonomy inspired by Kitayama et al. (1997), which has been successfully applied in a cultural context, does not explain individual differences in personality well. That is, according to this framework, to the extent that these situations would actually be relevant for participants and they would actually "use" them to construct their own self-esteem, the source of situation descriptions may not be one of the mechanisms through which sociotropic-autonomous definitions of self-esteem are collectively defined, if those scoring higher on these personality traits do not discriminate between personality-congruent sources and other sources. Another related interpretation is that sociotropic participants in this sample perceived the self-impact of situations

written by both sociotropic and independent sources because both, to some extent, generated interpersonal content, overpowering other elements like source cues. This fits with previous findings using undergraduate samples that suggested a general tendency to focus on interpersonal aspects (e.g., Bolger et al., 1989).

Fourth, the finding that individuals scoring high on sociotropy in this sample judged self-esteem increasing vs. decreasing situations as somewhat more (if not roughly equally) affecting self-esteem is interesting to note in light of initial theorizing by Beck (1983). He observed that depressed patients who were highly sociotropic tended to be only temporarily responsive to reassurance and support, yet optimistic about the benefits of receiving subsequent help. One way to interpret the current study finding is that beliefs about what will affect self-esteem among sociotropic individuals are only partly consistent with the kinds of past events that are actually salient for these individuals. Although beliefs about the impact of prospective interpersonal events corresponded with salient past experiences for sociotronics, they may not accurately forecast the impact that negative events will have on self-esteem. More specifically, they may overestimate the impact of positive events, though in the current study there was only a small difference between the perceived impact of positive and negative events. An alternative explanation raised previously, is that negative interpersonal events are more accessible in memory for sociotropic individuals when asked to recall past life events (Flett et al., 1997), but not when *imagining* future events. Interestingly, the correlation between negative mood and sociotropy found in Studies 1 to 3 of the current dissertation was not found in Study 4. It is possible that because sociotropic individuals in Study 4 were not necessarily experiencing negative mood (i.e., sociotropy and negative mood were uncorrelated), as a result, they did not focus on the negative features of interpersonal situations. This would be consistent with past

research showing that self-content varies with mood (e.g., Showers et al., 1998), and supports the diathesis-stress model in the sense that, "sociotropic individuals should be fairly content with their lives to the extent that they receive friendship and affection" (Frewen & Dozois, 2006a, p. 232). However, it is important to note that the frequency with which both positive and negative situations were judged as self-impacting increased as sociotropy increased, and there is some suggestion from a graphical inspection of the interaction that the trend may reverse at the highest levels of sociotropy. Moreover, conclusions are limited by the fact that participants in Study 4 were not asked directly whether situations were perceived as positively or negatively impacting self-esteem.

Finally, the moderate correlations between solitude and both independence and sociotropy found in all studies of the current dissertation are consistent with previous investigations noting this overlap (e.g., Alden & Bieling, 1996; Wiggins & Broughton, 1991). These linkages appear to produce incongruous interpretations with respect to the conceptualization of solitude as a facet of autonomy. Future research is needed to better understand whether individuals with a high need for solitude are genuinely disinterested in social exchange and are relatively less affected by negative social events, or whether solitude represents a defensive coping style involving denial and social withdrawal (Frewen & Dozois, 2006a, p. 237). However, conclusions about the link between solitude and life experiences are limited in Studies 1 and 4 of this dissertation by the fact that the coding system applied to a content analysis of situations generated did not separate unique characteristics of solitude (i.e., distance from others' needs, freedom from others' control) from other dimensions of autonomy, and instead used a composite independence-achievement category. Lack of specificity may have led to null results for solitude.

Together, Studies 1 through 4 provided several unique opportunities to extend existing investigations of the proposed dynamic between interpersonal factors underlying the self-concept. First, they provide new evidence to support the idea that sociotropic and autonomous individuals and situations provide both a tendency to focus on personality-relevant information in situations as well as relatively more opportunities to direct the focus toward interpersonal and personal aspects of the self-concept, respectively. Studies 2 and 3 provided new experimental evidence that trait sociotropy and autonomy differentially predicted how contextual cues shaped patterns of spontaneous self-concept content and mood, providing support for the interactional aspect of Beck's (1983) model. By utilizing spontaneous descriptions of past life events, reflecting actual lived experiences from the perspective of a peer-group of sociotropic and autonomous individuals in Study 1 to examine the perceived self-impact of situation descriptions for Study 4 participants, the current study permitted a different, more sophisticated way of looking at this aspect of Beck's (1983) model. Importantly, the situation sampling method employed in this study uniquely permitted an examination of how those scoring higher on sociotropy or autonomy subjectively interpreted situations described by their peers and the extent to which peer-generated situational descriptions are important for judgements about self-impacting events. Other methods currently used in the sociotropy-autonomy literature cannot directly investigate this. More studies are needed that employ innovative methodologies for investigating the theorized dynamic between individual differences in sociotropy-autonomy and contextual cues about interpersonal orientation. Study 4 represents an initial attempt to advance the creation of a collectively defined or co-constructed model of personality-vulnerability to depression inspired by Kitayama and colleagues (1997).

Study 4 has several important limitations. The first limitation concerns the use of cut-off values to create personality groupings from which situations for the situation evaluation exercise were sampled (e.g., top quartile sociotropy scores). Unlike Kitayama et al.'s (1997) study of cross-cultural differences, in which cultural groups were determined using geographic boundaries (e.g., individuals living in America and individuals living in Japan), personality groupings in the current study are arguably more arbitrary. While it makes intuitive sense that an individual reporting sociotropic attitudes close to 75% of the time (mean cut-off score of 2.93 in this sample) can reasonably be considered "highly" sociotropic, the literature provides very little guidance on determining meaningful cut-off scores for sociotropy, autonomy, or "mixed" types (Hammen et al., 1989).

A second limitation concerns the nature of the sample. There was a considerable portion of the sample that scored high on more than one sociotropy, independence, or solitude dimension. The situation sampling procedure used to create the situation evaluation exercise employed in the current study did not selectively sample only those situations generated by individuals scoring high on one personality dimension exclusively, with the exception of the analytical procedure used to examine source. According to Solomon and Haaga (1993), "the "mixed" personality type appears to be common (Robins, 1990), but has received little theoretical or empirical attention" (p. 744). Those scoring in the top quartile on only one dimension may differ in important ways from "mixed" types who score in the top quartile on multiple sociotropy-autonomy dimensions (Solomon & Haaga, 1993). For example, in one study on mixed subgroups, some groups (e.g., high sociotropy-low autonomy) were more vulnerable to psychopathology, including depression (Robins, 1985). Other mixed groups, such as those with relatively high levels of both dependency and autonomy, have been considered as potentially

buffering against the negative effects of stress due to the enhanced self-complexity associated with valuing both autonomy and intimacy (Solomon & Haaga, 1993). However, the differences between those scoring high on only one personality dimension and "mixed" personality types is not well understood (Solomon & Haaga, 1993), and an examination of potential differences is beyond the scope of this dissertation.

An additional related limitation of this study concerns the method of analysis used to examine the source dependent variable. In the analyses of situation source, only situations generated by participants scoring in the top quartile for 1 out of 3, not multiple, SAS subscales were included for analysis (i.e., "mixed" types were excluded). This more conservative approach should, theoretically, have grabbed a concentrated snapshot of how the most sociotropic and autonomous undergraduate students define self-impacting situations. Selecting situations written by relatively "pure" sociotropic, solitude, and independent groups for analysis instead of situations written by "mixed" sociotropic individuals may have resulted in important differences in the sample of situations being judged, which may have been more or less relevant to the average, possibly mixed type undergraduate student. Additional research examining the mixed sociotropic-autonomous personality subgroups is needed. The broader implications of Studies 1 to 4 for clinical, theory and research on the self-concept and self-concept change are discussed next.

Chapter 6

General Discussion

The purpose of this dissertation was to describe and investigate interpersonal factors underlying self-concept change using the theoretical framework of Beck's sociotropic-autonomous model of personality. This research addressed several gaps in the literature. It presented detailed descriptive accounts of spontaneous self-concept content along dimensions of sociotropy and autonomy and the extent to which trait measures (i.e., the SAS) predict spontaneous content and associated mood states. It presented some of the first experimental data describing how sociotropy-autonomy may interact with contextual cues about interpersonal orientation to produce different patterns in spontaneous self-concept content and mood. It further examined how different elements of the situation may influence how sociotropic and autonomous individuals perceive and determine the self-relevance of a situation, adapting methodological advances from related research areas (in cultural psychology) to look at interactional aspects of Beck's model in a unique way.

The previous chapters of this dissertation have already presented and discussed in detail the results for each section of the research. Accordingly, the general discussion will focus primarily on the broader theoretical and applied implications. Limitations and future directions for this research also are considered.

Theoretical and Applied Implications

This project began with the intriguing idea that the self-concept has the potential to change with each interaction with the environment, and with it, the person's thoughts, feelings, and actions. Because the repeated activation of particular self-concepts over time is believed to have a profound influence on how we experience the world (e.g., Beck, 1983; Beck et al., 2021;

Bergner, 1998; Bergner et al., 2000; Fiske & Taylor, 1991; Gore & Cross, 2011; Gore & Tichenor, 2018; Greenwald & Banaji, 1995; Markus & Kitayama, 1991; Showers & Zeigler-Hill, 2003), including a person's predisposition to depression and other psychopathology (e.g., Bieling et al., 2004; James & Barton, 2004), this dissertation argued the need to understand more about the conditions underlying change.

The data presented in this dissertation suggest sociotropic and independent individuals and contexts collectively define the importance of contextual cues, to the extent that these individuals tend to generate relatively more personality-relevant interpersonal "cues" and are uniquely attuned to picking up on these type of cues. This replicates the existing literature on sociotropy and autonomy, and begins to address the dynamic aspects of this theory. Study 2 and 3 extend previous research by providing experimental data that suggest a more nuanced picture of this dynamic than previously reported. This was most evident in the generally consistent pattern of results that showed sociotropic individuals described the self-concept in more allocentric terms and reported less negative self-evaluations in response to an independent self-construal prime. These results support the ongoing contention in the literature that sociotropic and autonomous individuals perceive the same contextual cues differently (e.g., Abramson et al., 1997; Frewen & Dozois, 2006a; Kwon & Whisman, 1998; Nunn et al., 1997; Robins et al., 1995; Rude & Burnham, 1993), differentially predicting how such cues might be taken up and represented in the self-concept (Rude & Burnham, 1993).

The current research has several clinical implications for therapies that focus on self-concept change, in particular those that target change along dimensions of sociotropy and autonomy. First, it provides preliminary experimental evidence that working on interpersonal concepts underlying sociotropic and autonomous personality traits is a

promising avenue for the treatment of some forms of depression (Bieling et al., 2004; McCann & Sato, 2000). For example, it supports the idea that change in self-concept content and mood may be accomplished, at least with sociotropic individuals, through the repeated reframing of the self-concept in alternate interpersonal terms, previously proposed by proponents of therapeutic techniques such as cognitive therapy (Bieling et al., 2004). Importantly, the results reported in this dissertation demonstrate that interpersonal cues can be used to shift self-concept content and mood of sociotropic individuals in potentially more healthy directions. We do not pay enough attention to mood and yet the mood states we experience on a day-to-day basis are not insignificant. Mood is both affected by our experience of the world and also affects our experiences. Importantly, as Miranda and colleagues (1998) argue, "Mood matters" (p. 363). Negative mood can lead to depression via activation of dysfunctional attitudes in women who are vulnerable to depression (Miranda et al., 1998). Other available studies suggest negative mood contributes to poor mental and physical health even in the absence of a depressive episode. For example, negative mood is associated with damaging immune responses (e.g., Graham-Engeland et al., 2018), increased alcohol use especially among women (e.g., Brady & Randall, 1999), prescription drug misuse among college students (Papp et al., 2022), and lower quality of life among patients with chronic conditions such as asthma (Ekici et al., 2006). In one recent study of health behaviours during the COVID-19 lockdown, negative mood was associated with poorer diet, less physical activity, and poorer sleep quality (Ingram et al., 2020).

The current research findings also suggest the need to further refine our understanding of what aspects of the self-concept are being activated when working with core beliefs about independence, for example. Based on the experimental data presented in this dissertation, it is not clear that emphasizing independent self-construal leads to the activation of individualistic-

autonomous kinds of self-content, as previously proposed (Bieling et al., 2004). Research in this area could help clinicians interested in understanding why cognitive therapy works (e.g., Teasdale et al., 2001). Additionally, these findings may be useful for better addressing the apparently illusive nature of solitude. Refining our understanding of processes activated when targeting independent or dependent aspects of the self-concept may shed light on why some evidence has shown that the solitude subscale does not change in response to cognitive therapy (Bieling et al., 2004).

The current findings also have implications for theory and research on the concept of the 'self' more broadly. This dissertation is a response to the various calls to integrate social and personality psychology approaches to investigating dynamic formulations of the self (e.g., see McCann & Sato, 2000 for a discussion; and Mesquita et al., 2010 for a review). Social cognitive formulations of the self (including prominent components like the self-concept) have been envisioned as playing a unifying role in the traditional divide between social and personality formulations (McCann & Sato, 2000). One way social cognitive formulations could integrate more diverse perspectives is by contributing a theory of the intentional and deliberate (co)construction of the self-concept.

There is a growing body of evidence supporting the idea that we are active co-constructors of our experience through the interaction between person and environment (see Mesquita et al., 2010 for a review). The results reported in the current dissertation suggest that the accessibility of particular interpersonal aspects of the self-concept like sociotropy-autonomy can change how we attend to situational cues, and the situational cues can activate particular interpersonal aspects of the self-concept. Importantly, the current data provides initial evidence this may affect negative mood and self-evaluations. This reflects an ongoing dynamic that may

affect the number of opportunities to reinforce or change self-views (e.g., Beck et al., 2021; Jones & Gerard, 1967). One important implication of the current results, especially the experimental findings, is that the process of self-concept change can be performed more intentionally and deliberately. Empirical research has only recently begun to investigate this idea from a social psychological perspective. For example, Knutzen and Kennedy (2012) examine the use of social encounters in virtual environments (e.g., Second Life) to create positive change in the relational self-concepts of youths, in a study titled, "Designing the self." Kukshinov (2015) reports a similar study using adults. While interest in self-concept change interventions has a longstanding tradition in clinical psychology, the potential role of intentional and deliberate behaviour in the study of the self-concept has been largely neglected in social and personality psychology research, as in general psychology more broadly. This line of inquiry is important because empirical research demonstrates that the self-concept we have predicts outcomes across diverse life domains, from academic performance (e.g., Jansen et al., 2015; Marsh & Martin, 2011; Shiloh et al., 2018) to relationships (McIntyre et al., 2015) and intergroup relations (Kawakami et al., 2012), to wellbeing (e.g., Linville, 1985; Roddy et al., 2020; Schlegel et al., 2009) or the experience of depression and other psychopathology (e.g., Power et al., 2002; Richman et al., 2016; Sa & Ferreira, 2012; Schwartz et al., 2011).

The findings outlined in this dissertation suggest relatively simple techniques can be used to create intentional shifts in self-concept content and mood with potentially positive impacts for non-clinical student samples. These findings are directly in-line with the basic tenets of social cognitive theory, which maintain that, "human agency is embedded in a self theory encompassing self-organizing, proactive, self-reflective and self-regulative mechanism" (Bandura, 1999, p. 21). The current dissertation suggests that a more explicit focus on what

happens when an individual deliberately engages in self-concept change is needed. The existing literature indicates the self-concept is constructed every day, potentially during every interaction with our environments, usually in ways we may not intend. For instance, some theorists estimate that we spend as much as 90% of our time performing automatic behaviour (Bargh & Chartrand, 1999). What if we could increase non-automatic (i.e., intentional) behaviour to 20% of the time? So, what do we mean by 'intentional' behaviour? A basic example of intentional behaviour may be doing something and knowing why you are doing it. In the context of self-concept change, this may involve paying more attention to how daily activities, events, and behaviours shape the self-concept, and attempting to engage in those things that have more healthy impacts on the self-concept. For example, working toward intentional self-concept construction in a way that reduces the experience of negative mood and possibly increases the experience of positive mood. A social-personality psychology theory of intentional self-concept construction would be useful in describing what this process may look like and explaining how it might work. For instance, does one just make a conscious decision about who they want to be, and then practice and repeat until they become it, like a person practicing a musical instrument until they become a great player? Sometimes people do things very much on purpose and they know it, like selecting sad music to match (and maintain) a sad mood (Garrido & Schubert, 2015). Under what conditions would intentional self-concept construction work/not work (e.g., does it work if we know we're doing it)? Do we already know everything we need to know about intentional self-concept construction from the existing body of knowledge in social and personality psychology, which does not usually differentiate between intentional and automatic (or 'unconscious') behaviour? I argue we have not yet put a theory of this kind to the test.

Currently, it is challenging to imagine a model of intentional and deliberate self-concept construction. According to Bandura (1999), “the theorists and their followers think, argue, and act agenticallly, but their theories about how other people function grant them little, if any, agentic capabilities” (p. 21). This may be in part because we have not made an explicit distinction between the intentional and what I will call the unintentional self-concept. That is, we have not made a methodological distinction between the two constructs. Each would appear to have different logical methodological implications and would yield very different kinds of data. For instance, the study of intentional and deliberate self-concept change would likely require an emphasis on subjective phenomenal experience in attempt to capture what is going on in a person's awareness at the time of action, and approximate their intentions and motivations for behaviour. (Theoretically, it makes sense that if a person is doing something "intentionally," they should be aware of what they are doing at the moment they do it.) Whereas questionnaire research is effective at measuring and predicting behavioural tendencies or traits over longer periods of time, this method was not designed to look at the immediate causes of behaviour as the person themselves experiences it. Early on, Snygg and Combs (1949, 1950) and others (e.g., Jones & Gerard, 1967) argued the significance of the person's awareness of their current perceptual field for understanding self-related behaviour. I argue this applies also to the possibility of an intentional process of self-concept construction. If momentary experience is where habits/past understandings of oneself meet current situational demands and thus the opportunity for novel behaviour (Beck et al., 2021; Jones & Gerard, 1967; Rhodewalt, 1998; Snygg & Combs, 1950), then it is precisely in that momentary experience that the individual can decide to intentionally do something they know will impact their self-concept. Following these lines of thinking, I argue that studies of this dynamic likely need to emphasize spontaneous

measurement tools that focus on how the person subjectively experiences themselves and the world. This naturally also leads to methods that restrict the timeframe of examination to what can be measured in the person's current perceptual awareness, recommended by Snygg and Combs (1950).

A theory of this kind could draw on philosophical perspectives on subjectivity and the self (e.g., Bakhtin's dialogism, 1981) to combine phenomenological methods for deriving and describing subjective constructs (see Smith, 1950) with recent advances in cognitively oriented conceptualizations of the self (e.g., Beck's sociotropy-autonomy), which have proved important for empirical investigations of both the phenomenal self and cognitively-oriented (non-phenomenal) self as process (McCann & Sato, 2000). This echoes several previous proposals by other social psychologists to integrate subjective experience into our subject matter (e.g., Macleod, 1947) which to date have not been pursued in an integrated and systematic way in social and personality psychology. Nevertheless, the significance of subjectivity for psychology and the need to "reclaim" it as a core subject matter (e.g., Teo, 2017), especially as a way to address the self and identity (e.g., Martin & Bickhard, 2013), continues to be of interest for psychologists.

Limitations

The research outlined in this dissertation has several limitations, some of which are specific to the particular studies presented here, and others reflect broader methodological limitations of contemporary theory and research on the self-concept (and related constructs like the self more broadly) in social psychology. First, the disproportionate female representation in all of the current study samples may be important when interpreting results regarding autonomy. While the overrepresentation of women is common in psychology research that utilizes

undergraduate samples, sex and/or gender may have a meaningful effect on how interpersonal aspects of the self-concept are perceived. Through extensive clinical observation, Beck (1983) noted, as other researchers have, that autonomous modes are more common among males and the sociotropic mode more common among females. However, related research on the concepts of independence and interdependence suggests males and females do not necessarily differ on independence, rather they differ on how they relate to interdependence. For example, Gabriel and Gardner (1999) showed that both males and females experience and value interdependence but they tend to construe it differently (e.g., relational vs. collective/group). Although males in their study typically defined the self-concept in terms of relationships less often than women, they more often than women identified with collective/group memberships, and the opposite was more often true of women. Due to the use of participant samples largely comprised of females in the current dissertation, it was not appropriate to statistically examine the effect of gender differences in these studies. But, some of the null effects for independence-autonomy in the current studies, as well as others reported in the sociotropy-autonomy research literature, may be explained by the possibility that effects for males are not being accounted for.

Second, although the current research was interested in a dynamic view of self-concept change, the self-concept was only assessed at one or two time points. One of the obvious drawbacks of this design is that the current studies cannot address the issue of change over longer periods of time. There are some indications in the current data that changes last beyond the immediate effects observed in the laboratory. It would also have been interesting to further examine the possibility of latent effects of the self-construal primes, observed among individuals scoring higher on autonomy dimensions in Study 2. This design also has less statistical power to detect possible effects or identify the lack of effects, compared to a longitudinal design that

permits modelling of individual trajectories over time to minimize error variance over multiple measurement points. Future research that employs a longitudinal design is needed.

Third, although social cognitive psychology has played an important role in moving toward dynamic perspectives (Bandura, 1999), especially in theoretical and methodological advancements in the empirical study of the self (McCann, 1992; McCann & Sato, 2000), social psychology's commitment to particular methodological traditions and ideas about empirical psychology has created important gaps in the relationship between theory and methods. For example, the current studies are limited by the operationalization of "person" and "situation" as discrete variables. Such operationalization is productive from an empirical point of view, but by assessing person and situation as "separate units" (Gergen, 2009, p. xx), the current methodology ultimately assumes what Gergen (2009) calls, "relationships between otherwise separate selves" (p. xv). In some ways, the current research continues the social psychological tradition of attempting to isolate interpersonal dimensions of the self from "a process of coordination that precedes the very concept of the self" (Gergen, 2009, p. xv). While social cognition metatheory is poised to demonstrate the power of the agentic self (Bandura, 1999), lower level theorizing does not provide strong accounts of a socially situated self-concept, and existing methodology falls short of supporting investigations of this nature. Research methods that effectively operationalize interpersonal factors underlying a dynamic view of the self-concept still have to catch up to social cognition metatheory. This problem can be generalized to empirical research in psychology more broadly. The relative paucity of studies that bridge complementary approaches to the study of the self-concept, including social and personality perspectives, has constricted methodological advancements in the field. This dissertation argues that a more

intensive focus on developing theoretical psychology-inspired methods will be a key component for moving the field in increasingly interesting and profitable directions.

Future Directions

Future work needs to investigate change over time using a longitudinal design. For instance, studies of the durability of momentary shifts observed in the laboratory in the current dissertation and in previous research (e.g., Cross et al., 2011), as well as more precise studies of the role interpersonal factors in general personality and self-concept change observed in existing longitudinal research (e.g., Oltmanns et al., 2020) are needed. Interest in change will require the reintegration of classic phenomenologically-inspired theories, such as the phenomenal self described by Snygg and Combs (1949, 1950) and Jones and Gerard (1967) and related formulations that focus on subjective understandings of the self-concept in momentary awareness. Because theory and research on the phenomenal experience of the self-concept has developed relatively independently of the study of cognitively-oriented (non-phenomenal) process aspects of the self-concept (McCann & Sato, 2000), there is still relatively little known empirically about how they are related. Jones and Gerard's (1967) classic concept of a phenomenal self that influences cognitive functions, appears to successfully combine the two elements, and could be extended to examine the subjective experience of the process of self-concept change. For instance, theory and research in these areas suggests that the more people call particular beliefs and past behaviours into awareness, even if only momentarily, the more they will view these as part of the "self-concept" (e.g., Rhodewalt, 1998 for a review). Research has produced robust empirical support that momentary awareness of particular aspects of the self-concept (e.g., the 'sociable self') carry over into later private views of the self-concept and behaviour (e.g., behaving sociably with others, Schlenker et al., 1994; see Rhodewalt, 1998 for a

review of relevant studies). Jones's phenomenal self can be read as a dialogical conception of the self that exists in an ephemeral state of dialogue within the self and with others. This is similar, for instance, to the philosophy of Bakhtin's (1981) dialogism. Like Bakhtin, thought for Jones appears to be imagined as inner speech about the ever-expanding repertoire of past and present behaviour in order to construe one's current position on the self. The philosophy of dialogism (Bakhtin, 1981) has been suggested as one of the most credible and fruitful approaches to understanding the self and subjectivity (Richardson & Woolfolk, 2013). Future research that bridges social-personality perspectives with theoretical psychology perspectives, such as the dialogical self, would benefit self-theory and research methods in the study of diverse aspects of the self-concept and related constructs. One study example would be an empirical investigation of the subjective features of self-talk and the perspectives taken on the self during this internal dialogue, and the consequences for self-concept change and the experience of negative mood and depression. In addition to extant advances in self-theory, investigations of this kind will require the integration of methods advances in related areas of psychology, for instance, those that utilize spontaneous (i.e., open-ended) forms of assessment that allow the individual to describe what is salient for them in their own words (e.g., Gore & Cross, 2011).

Finally, self-concept change research must be considered in light of the emerging empirical literature on mindfulness and the self. In particular, studies are beginning to show that mindfulness promotes self-concept clarity (Jankowski et al., 2022), cognitive control (Schonert-Reichl et al., 2015), and shifts to more healthy personality profiles (Crescentini & Capurso, 2015). Based on the more general link between mindfulness meditation and attentional control (e.g., Anderson et al., 2007), it might be possible to combine mindfulness practice with self-

concept work to help people more consciously explore how they frame and re-frame the self through purposeful direct experience. It would be interesting for future research to examine the role of self-concept clarity and cognitive control in the process of intentional self-concept change.

Conclusion

Understanding self-concept change is important for both conceptual and pragmatic reasons. If the self-concepts we use over time alter what we think, how we feel, and what we do, we should pay more attention to how they change. This dissertation showed that for high sociotropy individuals, reframing ones view of oneself in alternate interpersonal terms resulted in less negative mood and self-evaluations, but there are other applications. However, it may be difficult to fully envision a psychology of the active, agentic, socially situated self without the explicit acknowledgement of the human potential for purposeful action. Social psychology, and its concern with the individual in society, may be especially poised to investigate dynamic theories of the self, but it must be willing to broaden the definition of its subject matter (and what constitutes an 'observation') to take advantage of other empirical methodologies and turn its attention to the nature of change. This may be of particular relevance today, in a time when there is a growing sense that we need to be more selective about where we invest our time and energies. At the same time, interest in this area would seem to turn back toward classical strivings for a psychology that promotes "every man his own psychologist" (Smith, 1950, p. 517).

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Appendix A

Informed Consent Forms

Study 1

BACKGROUND

Thank you for participating in the Personality and Life Experiences Study. In this study you will be asked to fill out a questionnaire that deals with personality styles and life experiences. You will be asked to tell us briefly about some of your life experiences that you feel were of importance to you. The objective of this study is to examine the relation between personality modes and the kinds of life experiences that are important or valued to people with different personality styles.

RISKS AND BENEFITS

No foreseeable risks, harms, or inconveniences accompany the completion of these tasks. All participants will benefit from a greater understanding of psychology research through involvement in this study, and will also be provided with optional reading material related to the topic at hand. The entire study should take no more than 1 hour to complete and you will be awarded 1.0 credit towards your grade in Introduction to Psychology (PSYCH1010).

YOUR RIGHTS

If at any point during the study you wish to no longer participate in the study, please let the researcher know. You have the right not to answer specific questions and you have the right to withdraw from the study completely. If you withdraw from the study, you will still receive credit for participation. All your responses related to the relevant study will be deleted if you wish to withdraw. Your decision to stop participation or delete your data will not affect your relationship with the researchers, York University, or any other group involved with this study. The data collected from this research will contribute to the preparation of a manuscript and will be reported in aggregate form. No identifying information will ever be included with this data.

CONFIDENTIALITY

Please keep in mind that your name will not be associated with any of the information you provide during this study and confidentiality will be provided to the fullest extent of the law. Your information will be safely stored in a secure, password protected system and only the two researchers involved in this study will have access to it. The information collected will be stored securely for 5 years, after which it will be deleted from any and all systems. Hopefully, this will allow you to respond openly and honestly.

CONTACT

The principal investigator on this study is Ingrid Galfi-Pechenkov, Ph.D. Candidate, who can be reached in 368 BSB or by email (ingridg@yorku.ca). This research is being conducted under the supervision of Dr. Doug McCann (dmccann@yorku.ca), who can be reached in 247 Behavioural Sciences Building (416-736-2100, ext. 66293). This research has been reviewed and approved by the Human Participants Review Sub-Committee, York University's Ethic Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics Guidelines. If you have

concerns about this process or about your rights as a participant in this study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, York Research Tower, York University (416-736-5914 or e-mail ore@yorku.ca), or the Psychology Graduate Office 297 Behavior Sciences Building (416-736-5290).

Please check off the "I accept" box below and print your SONA Code to indicate that you have read and understood this statement and that you consent to participate in this questionnaire. If you do not agree, please check off the "I decline" box.

I accept SONA Code _____

I decline

Participant Signature: _____ Date: _____

Principal Investigator Signature: _____ Date: _____

Study 2

BACKGROUND

Thank you for participating in the Personality and Self-Concept Study. This study is a two-part study. Part A consists of a questionnaire and an experiment to be completed on separate occasions in the laboratory. Part B involves a 14-day experience sampling study outside the laboratory. In Part A of this study you will be asked to fill out a questionnaire that deals with personality styles and complete a series of tasks that will ask about how you think about yourself in relation to other people and your mood states. In Part B of this study you will be asked to participate in a 14-day study for which you will receive an SMS text message on your cell phone once every two days that will ask you to briefly tell us about yourself using an online survey software. The objective of this study is to examine the relation between personality modes, social interactions, and the ways in which we think about the self.

RISKS AND BENEFITS

No foreseeable risks, harms, or inconveniences accompany the completion of these tasks. All participants will benefit from a greater understanding of psychology research through involvement in this study, and will also be provided with optional reading material related to the topic at hand. The entire study should take no more than 3 hours in total to complete and you will be awarded 3.0 credits towards your grade in Introduction to Psychology (PSYCH1010). You will also receive a ballot for a chance to win \$500 at the York University bookstore or one of five \$50 York Lanes shops cards. All participants will be entered for the draw even if they decide to withdraw from the study.

YOUR RIGHTS

If at any point during the study you wish to no longer participate in the study, please let the researcher know. You have the right not to answer specific questions and you have the right to withdraw from the study completely. If you withdraw from the study, you will still receive credit for participation. All your responses related to the relevant study will be deleted if you wish to withdraw. Your decision to stop participation or delete your data will not affect your relationship with the researchers, York University, or any other group involved with this study. The data collected from this research will contribute to the preparation of a manuscript and will be reported in aggregate form. No identifying information will ever be included with this data.

CONFIDENTIALITY

Please keep in mind that your name will not be associated with any of the information you provide during this study and confidentiality will be provided to the fullest extent of the law. Your information will be safely stored in a secure, password protected system and only the two researchers involved in this study will have access to it. The information collected will be stored securely for 5 years, after which it will be deleted from any and all systems. Hopefully, this will allow you to respond openly and honestly.

CONTACT

The principal investigator on this study is Ingrid Galfi-Pechenkov, Ph.D. Candidate, who can be reached in 368 BSB or by email (ingridg@yorku.ca). This research is being conducted under the

supervision of Dr. Doug McCann (dmccann@yorku.ca), who can be reached in 247 Behavioural Sciences Building (416-736-2100, ext. 66293). This research has been reviewed and approved by the Human Participants Review Sub-Committee, York University's Ethic Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics Guidelines. If you have concerns about this process or about your rights as a participant in this study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, York Research Tower, York University (416-736-5914 or e-mail ore@yorku.ca), or the Psychology Graduate Office 297 Behavior Sciences Building (416-736-5290).

Please check off the "I accept" box below and print your SONA Code to indicate that you have read and understood this statement and that you consent to participate in this questionnaire. If you do not agree, please check off the "I decline" box.

I accept SONA Code _____

I decline

Participant Signature: _____ Date: _____

Principal Investigator Signature: _____ Date: _____

Study 3

Thank you very much for participating in the Personality, the Self, and Imagination Study.

This study is a two-part study. In Part 1 today, you will be asked to complete a questionnaire. In about one week, you will return to the laboratory to complete Part 2 involving a series of activities on the computer. In this study, you will be asked to complete questionnaires that deal with personality styles and a series of tasks that will ask you to think about yourself in relation to other people and the world, and your mood states. The objective of this study is to examine the relation between personality modes, imagination, and the ways in which we think about the self.

RISKS AND BENEFITS

No foreseeable risks, harms, or inconveniences accompany the completion of these tasks. All participants will benefit from a greater understanding of psychology research through involvement in this study, and will also be provided with optional reading material related to the topic at hand. The entire study should take no more than 1.5 hours in total to complete and you will be awarded 1.5 credits toward your grade in Introduction to Psychology (PSYCH1010). You will also receive a ballot for a chance to win one of two \$50 cash prizes. All participants will be entered for the draw even if they decide to withdraw from the study.

YOUR RIGHTS

If at any point during the study you wish to no longer participate in the study, please let the researcher know. You have the right not to answer specific questions and you have the right to withdraw from the study completely. If you withdraw from the study, you will still receive credit for participation. All your responses related to this study will be deleted if you wish to withdraw. Your decision to stop participation or delete your data will not affect your relationship with the researchers, York University, or any other group involved with this study. The data collected from this research will contribute to the preparation of a manuscript and will be reported in aggregate form. No identifying information will ever be included with this data.

CONFIDENTIALITY

Please keep in mind that your name will not be associated with any of the information you provide during this study and confidentiality will be provided to the fullest extent of the law. Your information will be safely stored in a secure, password protected system and only the two researchers involved in this study will have access to it. The information collected will be stored securely for 5 years, after which it will be deleted from any and all systems. Hopefully, this will allow you to respond openly and honestly.

CONTACT

The principal investigator on this study is Ingrid Galfi-Pechenkov, Ph.D. Candidate, who can be reached in 368 BSB or by email (ingridg@yorku.ca). This research is being conducted under the supervision of Dr. Doug McCann (dmccann@yorku.ca), who can be reached in 247 Behavioural Sciences Building (416-736-2100, ext. 66293). This research has been reviewed and approved by the Human Participants Review Sub-Committee, York University's Ethic Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics Guidelines. If you have concerns about this process or about your rights as a participant in this study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, York Research

Tower, York University (416-736-5914 or e-mail ore@yorku.ca), or the Psychology Graduate Office 297 Behavior Sciences Building (416-736-5290).

Please check off the "I accept" box below and print your SONA Code to indicate that you have read and understood this statement and that you consent to participate in this questionnaire. If you do not agree, please check off the "I decline" box.

I accept URPP Code _____ I decline
Participant Signature: _____ Date: _____
Principal Investigator Signature: _____ Date: _____

Study 4

BACKGROUND

Thank you for participating in the Life Experiences and Personality Study. In this study you will be asked to fill out a questionnaire that deals with personality styles and life experiences. You will be presented with a number of different scenarios and asked to evaluate scenarios on dimensions of personal relevance to you. The objective of this study is to examine the relation between personality modes and the kinds of life experiences that are important or valued to people with different personality styles.

RISKS AND BENEFITS

No foreseeable risks, harms, or inconveniences accompany the completion of these tasks. All participants will benefit from a greater understanding of psychology research through involvement in this study, and will also be provided with optional reading material related to the topic at hand. The entire study should take no more than 1 hour to complete and you will be awarded 1.0 credit towards your grade in Introduction to Psychology (PSYCH1010).

YOUR RIGHTS

If at any point during the study you wish to no longer participate in the study, please let the researcher know. You have the right not to answer specific questions and you have the right to withdraw from the study completely. If you withdraw from the study, you will still receive credit for participation. All your responses related to the relevant study will be deleted if you wish to withdraw. Your decision to stop participation or delete your data will not affect your relationship with the researchers, York University, or any other group involved with this study. The data collected from this research will contribute to the preparation of a manuscript and will be reported in aggregate form. No identifying information will ever be included with this data.

CONFIDENTIALITY

Please keep in mind that your name will not be associated with any of the information you provide during this study and confidentiality will be provided to the fullest extent of the law. Your information will be safely stored in a secure, password protected system and only the two researchers involved in this study will have access to it. The information collected will be stored securely for 5 years, after which it will be deleted from any and all systems. Hopefully, this will allow you to respond openly and honestly.

CONTACT

The principal investigator on this study is Ingrid Galfi-Pechenkov, Ph.D. Candidate, who can be reached in 368 BSB or by email (ingridg@yorku.ca). This research is being conducted under the supervision of Dr. Doug McCann (dmccann@yorku.ca), who can be reached in 247 Behavioural Sciences Building (416-736-2100, ext. 66293). This research has been reviewed and approved by the Human Participants Review Sub-Committee, York University's Ethic Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics Guidelines. If you have concerns about this process or about your rights as a participant in this study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, York Research Tower, York University (416-736-5914 or e-mail ore@yorku.ca), or the Psychology Graduate Office 297 Behavior Sciences Building (416-736-5290).

Please check off the "I accept" box below and print your SONA Code to indicate that you have read and understood this statement and that you consent to participate in this questionnaire. If you do not agree, please check off the "I decline" box.

I accept SONA Code _____

I decline

Participant Signature: _____ Date: _____

Principal Investigator Signature: _____ Date: _____

Appendix B

Debrief Forms

Study 1

Thank you very much for participating in our study. This study falls under the general area of personality and social psychology. We were interested in understanding the relationship between personality modes and the kinds of life experiences that we deem important to us. Specifically, we were interested in whether our typical orientation toward other people is related to finding certain kinds of life experiences more personally relevant than others.

In this study you completed measures pertaining to sociotropic and autonomous personality style (one measure of our orientation toward other people) and mood states. You also generated a number of situations in which you felt personally that you had experienced success and other situations in which you felt personally that you had experienced failure. We will examine whether personality style is associated with considering certain kinds of life experiences more personally relevant than others. One reason why it is important to understand the relationship between personality orientation and important life experiences is because it sheds light on how life experiences can shape personality. The implications of this study include a better understanding of how we construct and maintain our sense of self as we move through our life experiences.

CONTACT

This study is being conducted under the supervision of Dr. Doug McCann. If you have any questions or concerns about this study, please feel free to contact him at dmccann@yorku.ca, or in person in 247 Behavioural Sciences Building (416-736-2100, ext. 66293), or the Principal Investigator, Ingrid Pechenkoy, Ph.D. Candidate, at ingridg@yorku.ca or in person at Office 368, Behavioural Sciences Building.

RESOURCES

The questionnaires and procedures in this study are not expected or intended to make you feel distressed in any way. This study has asked you to reflect on your personality and life experiences, and you may feel you have gathered new insights about yourself. Should you wish to contact the counseling center at York University to discuss these insights or wish to speak to the center for any reason, please feel free to do so. Counseling services are available free to all York University students: 416-736-5297; Room N110, Bennett Center for Student Services.

For additional readings, please see:

- Clark, D.A., Beck, A.T., & Brown, G.K. (1992). Sociotropy, autonomy, and life event perceptions in dysphoric and nondysphoric individuals. *Cognitive Therapy and Research*, *16*, 635-652.
- Kitayama, S., Markus, H.R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology* *72*(6), 1245-1267.

Sato, T., & McCann, D. (2002). Advances in the study of sociotropy-autonomy and depression. In S.P. Shohov (Eds.), *Advances in psychology research, Volume 17* (pp. 35-53). Hauppauge: Nova Science Publishers.

Thank you for helping us with this study!

Study 2/3

Thank you very much for participating in our study. This study falls under the general area of personality and social psychology. We were interested in understanding the relations between personality modes, social environment, and the ways in which we think about the self (also known as the ‘self-concept’). Specifically, we were interested in whether or not contextual cues found in our social environments interact with our personality modes in unique ways to influence the self-concept.

In Part A of this study you completed measures pertaining to sociotropic and autonomous personality style and mood states. In Part B of this study you completed an experiment that manipulated contextual cues about the self in-relation-to other people and then you responded to a number of statements beginning with the phrase, “I am”. These statements are intended to capture how one spontaneously describes the self using a free-response format. Finally, you provided responses to these same statements about the self along with a measure of mood and beliefs about the self-in-relation-to other people, once every two days over a 14-day period. We will examine whether contextual cues about the self in-relation-to others can shift the ways in which we describe and think about the self and our mood states. We will also examine whether we can continue to observe this shift in the ways we think about the self over a 14-day period. One reason why it is important to understand the interaction between personality and context is because some evidence suggests that personality may be better understood as a fluid *mode* rather than as a fixed trait. The implications of this study include a better understanding of the function of our self-concepts especially as it relates to mood and the ways in which we construct and maintain our sense of self as we move through our daily environments.

CONTACT

This study is being conducted under the supervision of Dr. Doug McCann. If you have any questions or concerns about this study, please feel free to contact him at dmccann@yorku.ca, or in person in 247 Behavioural Sciences Building (416-736-2100, ext. 66293), or the Principal Investigator, Ingrid Pechenkov, Ph.D. Candidate, at ingridg@yorku.ca or in person at Office 368, Behavioural Sciences Building.

RESOURCES

The questionnaires and procedures in this study are not expected or intended to make you feel distressed in any way. This study has asked you to reflect on your personality, identity, mood, and you may feel you have gathered new insights about yourself. Should you wish to contact the counseling center at York University to discuss these insights or wish to speak to the center for any reason, please feel free to do so. Counseling services are available free to all York University students: 416-736-5297; Room N110, Bennett Center for Student Services.

For additional readings, please see:

- Beck, A. T. (1983). Cognitive therapy of depression: New perspectives. In P.J. Clayton & J.E. Barrett (Eds.), *Treatment of depression: Old controversies and new approaches* (pp. 265-290). New York: Raven Press.
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- Fiske, S.T., & Taylor, S.E. (1991). *Social Cognition, Second Edition* (pp.180-242). New York: McGraw-Hill.

Study 4

Thank you very much for participating in our study. This study falls under the general area of personality and social psychology. We were interested in understanding the relationship between personality modes and the kinds of life experiences that we deem important to us. Specifically, we were interested in whether our typical orientation toward other people is related to finding certain kinds of life experiences more personally relevant than others.

In this study you completed measures pertaining to sociotropic and autonomous personality style (one measure of our orientation toward other people) and mood states. You also judged a number of situations that can be described as success and failure experiences in terms of how personally relevant you felt each situation would be to you. We will examine whether personality style is associated with considering certain kinds of life experiences more personally relevant than others. One reason why it is important to understand the relationship between personality orientation and important life experiences is because it sheds light on how life experiences can shape personality. The implications of this study include a better understanding of how we construct and maintain our sense of self as we move through our life experiences.

CONTACT

This study is being conducted under the supervision of Dr. Doug McCann. If you have any questions or concerns about this study, please feel free to contact him at dmccann@yorku.ca, or in person in 247 Behavioural Sciences Building (416-736-2100, ext. 66293), or the Principal Investigator, Ingrid Pechenkov, Ph.D. Candidate, at ingridg@yorku.ca or in person at Office 368, Behavioural Sciences Building.

RESOURCES

The questionnaires and procedures in this study are not expected or intended to make you feel distressed in any way. This study has asked you to reflect on your personality and life experiences, and you may feel you have gathered new insights about yourself. Should you wish to contact the counseling center at York University to discuss these insights or wish to speak to the center for any reason, please feel free to do so. Counseling services are available free to all York University students: 416-736-5297; Room N110, Bennett Center for Student Services.

For additional readings, please see:

- Clark, D.A., Beck, A.T., & Brown, G.K. (1992). Sociotropy, autonomy, and life event perceptions in dysphoric and nondysphoric individuals. *Cognitive Therapy and Research*, 16, 635-652.
- Kitayama, S., Markus, H.R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology* 72(6), 1245-1267.
- Sato, T., & McCann, D. (2002). Advances in the study of sociotropy-autonomy and depression. In S.P. Shohov (Eds.), *Advances in psychology research, Volume 17* (pp. 35-53). Hauppauge: Nova Science Publishers.

Thank you for helping us with this study!

Should you have any questions, please feel free to contact me at: 416-736-5914 or via email at: acollins@yorku.ca.

Yours sincerely,

Alison M. Collins-Mrakas M.Sc., LLM
Sr. Manager and Policy Advisor,
Office of Research Ethics

RESEARCH ETHICS: PROCEDURES to ENSURE ONGOING COMPLIANCE

Upon receipt of an ethics approval certificate, researchers are reminded that they are required to ensure that the following measures are undertaken so as to ensure on-going compliance with Senate and TCPS ethics guidelines:

1. **RENEWALS:** Research Ethics Approval certificates are subject to annual renewal. It is the responsibility of researchers to ensure the timely submission of renewals.
 - a. As a courtesy, researchers will be reminded by ORE, in advance of certificate expiry, that the certificate must be renewed. Please note, however, it is the expectation that researchers will submit a renewal application prior to the expiration of ethics certificate(s).
 - b. Failure to renew an ethics approval certificate (or to notify ORE that no further research involving human participants will be undertaken) may result in suspension of research cost fund and access to research funds may be suspended/ withheld.
2. **AMENDMENTS:** Amendments must be reviewed and approved PRIOR to undertaking/making the proposed amendments to an approved ethics protocol;
3. **END OF PROJECT:** ORE must be notified when a project is complete;
4. **ADVERSE EVENTS:** Adverse events must be reported to ORE as soon as possible;
5. **POST APPROVAL MONITORING:**
 - a. More than minimal risk research may be subject to post approval monitoring as per TCPS guidelines;
 - b. A spot sample of minimal risk research may similarly be subject to Post Approval Monitoring as per TCPS guidelines.

FORMS: As per the above, the following forms relating to on-going research ethics compliance are available on the Research website:

- a. Renewal
- b. Amendment
- c. End of Project
- d. Adverse Event

ETHICS AMENDMENT APPROVAL

Certificate #: STU 2016 - 123**Initial** 09/16/16-09/16/17**Approval:****Amendments:** Amendment approved:
01/18/17**Renewals:****Current** 09/16/16-09/16/17**Approval****Period:**

To: Ingrid Galfi-Pechenkov - Graduate Student
 Psychology
 Faculty of Health
 ingridg@yorku.ca

From: Alison M. Collins-Mrakas, Sr. Manager and Policy Advisor, Research Ethics
 (on behalf of Denise Henriques, Chair, Human Participants Review Committee)

Date: Wednesday, January 18, 2017

Title: Interpersonal Orientation and the Sel-Concept: A Case for the Social Embeddedness of Self

Risk Level: 1 Minimal Risk 0 More than Minimal Risk

Level of Review: 1 Delegated Review 0 Full Committee Review

With respect to your research project entitled, "Interpersonal Orientation and the Sel-Concept: A Case for the Social Embeddedness of Self", the committee notes that, as there are no substantive changes to either the methodology employed or the risks to participants in and/or any other aspect of the research project, a renewal of approval re the proposed amendment(s) to the above project is granted.

Any further changes to the approved protocol must be reviewed and approved through the amendment process by submission of an amendment application to the HPRC prior to its implementation.

Ongoing research – research that extends beyond one year – must be renewed prior to the expiry date.

Any adverse or unanticipated events in the research should be reported to the Office of Research ethics (ore@yorku.ca) as soon as possible.

For further information on researcher responsibilities as it pertains to this approved research ethics protocol, please refer to the attached document, “RESEARCH ETHICS: PROCEDURES to ENSURE ONGOING COMPLIANCE”.

Should you have any questions, please feel free to contact me at: 416-736-5914 or via email at: acollins@yorku.ca.

Yours sincerely,

Alison M. Collins-Mrakas M.Sc., LL.M.
Sr. Manager and Policy Advisor,
Office of Research Ethics

RESEARCH ETHICS: PROCEDURES to ENSURE ONGOING COMPLIANCE

Upon receipt of an ethics approval certificate, researchers are reminded that they are required to ensure that the following measures are undertaken so as to ensure on-going compliance with Senate and TCPS ethics guidelines:

1. **RENEWALS:** Research Ethics Approval certificates are subject to annual renewal. It is the responsibility of researchers to ensure the timely submission of renewals.
 - a. As a courtesy, researchers will be reminded by ORE, in advance of certificate expiry, that the certificate must be renewed. Please note, however, it is the expectation that researchers will submit a renewal application prior to the expiration of ethics certificate(s).
 - b. Failure to renew an ethics approval certificate (or to notify ORE that no further research involving human participants will be undertaken) may result in suspension of research cost fund and access to research funds may be suspended/ withheld.
2. **AMENDMENTS:** Amendments must be reviewed and approved **PRIOR** to undertaking/making the proposed amendments to an approved ethics protocol;
3. **END OF PROJECT:** ORE must be notified when a project is complete;
4. **ADVERSE EVENTS:** Adverse events must be reported to ORE as soon as possible;
5. **POST APPROVAL MONITORING:**
 - a. More than minimal risk research may be subject to post approval monitoring as per TCPS guidelines;

b. A spot sample of minimal risk research may similarly be subject to Post Approval Monitoring as per TCPS guidelines.

FORMS: As per the above, the following forms relating to on-going research ethics compliance are available on the Research website:

- a. Renewal
- b. Amendment
- c. End of Project
- d. Adverse Event

Appendix D

Table of Study 1 Means and Other Descriptive Statistics

Variable	<i>M</i>	<i>SD</i>	Min-Max	Skewness	Cronbach's Alpha
Sociotropy	2.44	.61	.90-3.72	-.31	.89
Independence	2.78	.47	1.24-3.76	-.353	.75
Solitude	1.70	.55	.31-3.15	.435	.70
Mean Interpersonal Score	3.40	.85	1-5	-.13	–
Mean Interpersonal Score for Self- Esteem Decreasing Events	3.58	1.05	1-5	-.61	–
Mean Interpersonal Score for Self- Esteem Increasing Events	3.23	1.04	1-5	.038	–
Depression Symptoms	17.63	10.63	0-48	.60	.89
Negative Mood	1.11	.77	.06-3.77	1.015	.97

Appendix E

Descriptive Statistics and Correlations for Study 2 Variables Measured at Initial

Questionnaire Session

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5
	126							
1. Sociotropy		2.35	.67					
2. Independence		2.75	.52	-.073				
3. Solitude		1.62	.56	.30 **	.30 **			
4. Negative Mood		1.01	.80	.33 **	-.017	.324 **		
5. BDI-II		16.60	10.46	.35 **	-.066	.172 *	.70 **	–
Cronbach's Alpha				.91	.80	.70	.97	.90

Note. * $p < .05$. ** $p < .01$ (two-tailed).

Appendix F

**Table of Study 2 Independent-Samples T-tests of Mean Differences on Individual
Difference Variables between Experimental Conditions**

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
BDI-II					
Condition 1 (n= 52)	16.37	10.26			
Condition 2 (n= 51)	16.86	10.78	-.243	103.31	.808
POMS Negative					
Condition 1 (n= 53)	.955	.751			
Condition 2 (n= 51)	1.08	.853	-.784	103.87	.435
Sociotropy					
Condition 1 (n= 53)	2.29	.654			
Condition 2 (n= 51)	2.43	.684	-1.07	107.04	.288
Independence					
Condition 1 (n= 53)	2.76	.501			
Condition 2 (n= 51)	2.75	.549	.124	105.56	.902
Solitude					
Condition 1 (n= 53)	1.64	.545			
Condition 2 (n= 51)	1.60	.582	.388	106.4	.699

Note. 2-tailed tests.

Appendix G

Table of Study 3 Means and Other Descriptive Statistics Measured at Initial Questionnaire

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	Session				
				1	2	3	4	5
	119							
1. Sociotropy		2.37	.62					
2. Independence		2.76	.50	-.22*				
3. Solitude		1.67	.56	.23*	.25**			
4. Negative Mood		1.03	.79	.40**	-.025	.27**		
5. BDI-II		16.53	11.12	.35**	-.003	.31**	.83**	–
Cronbach's Alpha				.89	.80	.71	.97	.92

* $p < .05$. ** $p < .01$ (two-tailed).

Appendix H

**Table of Study 3 Independent-Samples T-tests of Mean Differences on Individual
Difference Variables between Experimental Conditions**

Variable	<i>M</i>	<i>sd</i>	<i>t</i>	<i>df</i>	<i>p</i>
BDI-II					
Condition 1 (n= 52)	16.85	11.11			
Condition 2 (n= 51)	16.22	11.23	.286	101.74	.843
POMS Negative					
Condition 1 (n= 53)	1.02	.79			
Condition 2 (n= 51)	1.05	.80	-.20	100.91	.775
Sociotropy					
Condition 1 (n= 53)	2.42	.627			
Condition 2 (n= 51)	2.33	.612	.745	102.00	.458
Independence					
Condition 1 (n= 53)	2.75	.530			
Condition 2 (n= 51)	2.78	.460	-.310	100.94	.757
Solitude					
Condition 1 (n= 53)	1.72	.518			
Condition 2 (n= 51)	1.63	.595	.803	98.92	.424

Note. 2-tailed tests.

Appendix I

Situation evaluation exercise

Instructions:

The next task is an imaginative exercise.

The following questionnaire will present you with several sets of life event scenarios. Read each scenario carefully *as though you are experiencing that situation yourself*.

Answer from YOUR perspective when you are imagining the scenario – *not the perspective of anyone else*. Please work through the items fairly quickly.

EXAMPLE SCENARIO

When I failed a test in high school, I thought I wasn't going to get into any good University and that my future was over.

- (A) Would this situation *affect your self-esteem* – IF IT HAPPENED TO YOU?
YES / NO



If YES, to what extent? **1 = only a little 2 3 4 5 6 7 = very much**

- (B) Who / What **DO YOU THINK** is the **main focus** in this situation?
IN YOUR OPINION the **primary focus** of this situation is:

Personal concerns (to do with the individual self / ability to act independently / to move freely / achieve one's goals)

OR

Interpersonal concerns (related to other people and relationships)

* Many scenarios will involve both personal and interpersonal concerns, but try to pick the ONE concern **you think** best represents that scenario.

REMEMBER: Answer from YOUR perspective when you are imagining the scenario—IF IT HAPPENED TO YOU – not someone else.

Read each scenario carefully as though you are experiencing that situation yourself.

Answer from **YOUR** perspective when you are imagining the scenario – *not the perspective of anyone else*. Check off/circle your answers below.

Please work through the items fairly quickly.

SET 1

When I got waitlisted for a program.

(A) Would this situation <i>affect your self-esteem</i> – <u>IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I do not show up for a couple of days or not see my friends, when I do finally see them, they tell me that they miss me and are curious where I was the past couple of days.

(A) Would this situation <i>affect your self-esteem</i> – <u>IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Eating lunch alone. When my mom was in the hospital, I ate my lunch alone, cried, isolation from friends.

(A) Would this situation <i>affect your self-esteem</i> – <u>IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

The time my best friend decided to start dating the person I told her I had a crush on for a long time, I still love her and she's still my best friend even though I should be blaming her.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When we had a family gathering, and by that point I had lost some weight and actually looked better than before, I was able to wear this nice outfit. Everyone has noticed the fact that I have lost so much weight and told me that I looked really good, and that I had a nice body shape. This has made me more confident about my appearance.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

I am spending weekends by myself and I don't like that.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When I first got into York I was excited. It really boosted my confidence and I felt good about my accomplishment.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

My younger brother loves cooking and recently he has been asking me to help him or join him even if my mother, who is a much better cook, is around.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
---	---

YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Having a close encounter with members of parliament. I was volunteering at a festival and I had to give a tour of the festival to visiting members of parliament. They complimented me and said that they were happy with my enthusiasm. This experience will always be very important to me and will always make me feel confident.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Helped a friend cope with depression and suicidal thoughts. After suspecting mental illness I was able to help my friend address the situation and seek help. This has been an ongoing process and has shown that my actions can have a lasting impact.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Have quite a bit of family problems: financial and my mother's illness, which caused a depressed period. Hard time expressing myself, emotions all over the place.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

My relationship with my best friend deteriorated. She blamed me for the breaking of our friendship.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Getting all A's in school last year (except for biology). Made me feel smart.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

One of my best friends and I got into an argument, which was really hard because we never fight.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

At a family dinner, I was with my cousins and my uncles and all my extended family in general. I was quietly eating and decided to serve myself some more. One family member noticed and points out I shouldn't have been eating, because I was too fat. They took the plate away and I had to watch other people eat.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I really don't like my body shape and think that I'm a bit over-weight, compared to my friends.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

My parents told me they're proud of me.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I participated in my dance classes, that I would dance (since I love dancing) and was doing well, I could feel the adrenaline going through me.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I graduated high school and got my Diploma, my self-esteem increased because I achieved my biggest goal at the time.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

In gym, I was always picked last to be on teams. And it really reinforced that I wasn't a good athlete.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I was put down for my opinion. In a family discussion with my cousins (who I don't fancy), I was about to share my opinion, but was told my opinion wouldn't matter since I wasn't old enough.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

My significant other would always point out my every flaw in me, or judge my decisions, my appearance, my choices, my personality. I became very unsocial.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)

NO	<i>Interpersonal concerns</i> (related to other people, relationships)
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When I walk by a homeless person and I don't have change, in general I feel very bad because I don't do anything to help them.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

The time midway through high school in which I had to change schools due to the difficulty of keeping up with high expectations and a stressful course load.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Not being accepted for a job I worked last summer.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

The feeling of completing exams at the end of the school year.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

My mom tells me I'm not going anywhere in my life when we get into a fight.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
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My parents telling me I will fail no matter how hard I try not to. (Fail in school, work, being independent, and being an adult, etc.) They are still angry with me for moving out of the city they live in and coming to Toronto.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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Losing friends because of the harsh things I've said to them and horrible actions toward them.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I went travelling and was able to surprise my cousin for her wedding.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Moving to Toronto has made me the happiest I have ever been and I'm so thankful for every second of it.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I got into my university and program.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Working toward a goal – whether it's teacher's college, journalism, or starting a small singing career. I got excited thinking about all the possibilities of my future.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I go to a party with girls, if I didn't wear the outfit in my mind or didn't really like my outfit, I just put myself down.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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I feel bad that I have been getting very irritated with my parents.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Boosting my marks academically, and finding a place of employment that made me realize the beauty of human connection / helping those in need.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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Correcting a friend without being condescending. I find most people, including myself, tend to talk down to others when correcting them, and being able to find a way to recognize this and correct my own behaviour made me more confident in my social abilities.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
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Wishing every member of my family would pass on (die) so I could be all alone without them. I still hate myself for thinking that.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When my cousins show off their school awards, makes me feel like I was a let-down to my parents and that I wasn't good enough.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
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I got a job recently and my manager says she is happy that she hired me.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
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Walking around with my new phone makes me feel more comfortable than with my old phone.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When I was at Karate it was stripe week. I didn't get a stripe and was hoping to.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
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Being acknowledged and recognized for my existence. Being acknowledged and recognized for my hard work at work.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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If I found the right philosophy behind whatever is going on, I would feel like I have become a better person and that would instantly brighten my mood, even though according to others I was still the same.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I went swimming with my cousins over the summer and they saw my body. They kept pointing out how chubby I had gotten and I felt really attacked.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I made friends with all my new current friends. We send each other selfies and support, and ever since I met them my self-esteem has gone up.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I am taking less courses than I thought I would this year.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Played pick-up basketball with random people a few weeks ago and was told to come back and play with them. This made me feel like I was a valuable player and I played really well.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Ever since school started this September, I haven't been able to work out as consistently as before.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When people tell me I can't do certain things because I'm a female (*or male*) and not a male (*or female*).

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When people on my sports team tell me that it is ok to make mistakes while playing. They always have my back no matter what.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

I wrote a list of all my skills and unique characteristics.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When I received a high academic average.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
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Working this past summer as a supervisor at times I found it stressful and felt like I had no support. When I would ask for assistance or complain about something that was not delivered, my superior would sometimes shrug their shoulders and say "you'll be ok". Making it all the way through the summer lets me know I can handle more than I thought.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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NO	<i>Interpersonal concerns</i> (related to other people, relationships)

My best friend and I during high school started drifting off because she met and started hanging out with some other girl.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

My high school teachers, some of them, thought I wouldn't make it very high in life. They would not say anything directly in those terms but always told me how my school grades were really bad and defined me as a person by those grades. Those with grades better than me and my friends were treated differently. This changed our whole perspective about the education system today.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Got accepted into university (York U). I had struggled through illness in high school so it was nice to see some hard work pay off.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

During a lot of tests I find that my confidence decreases when I am studying but cannot retain information. I find myself reading the same thing over and over and having anxiety over this.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When someone I really like broke their commitment to me, this made me feel worthless and disrespected.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

A fight between my best friend and I.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Getting accepted to a super competitive design program here at York. This situation made me feel so incredibly confident because prior to the acceptance I doubted myself.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Getting cheated on and letting the same person back into my life. I hate second chances because they are only a let-down again!

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Feeling left out in school, even though I have made many friends I still feel I should have made a lot more.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I was told I look ugly without make up on.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I used to play Rep sports, I scored a really nice goal right in the top left corner. That was really cool.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When this person I've had a crush on for years called me cute and showed an interest in me. I didn't think this person really noticed me, but out of the blue one day they started a conversation with me and we've been talking for months now. My confidence the first day skyrocketed.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Gained some weight and I was mad at myself for letting myself get fat. Even though I won't be considered fat at all. I wasn't happy.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I started orientation (Frosh) week at York making many new friends.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

A friend who has had problems with staying out of legal trouble asked for my advice about making good decisions. It was interesting because the person became kind of distant in my life. So to have him ask for advice made me think I was doing something positive with my life.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Last year I realized I was the only one who could do the heavy lifting at home. Mom and brother were too weak to do any sort of heavy lifting.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Having my parents be proud of me for getting into university.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

My old friend from high school randomly texted me that she missed me, even though we haven't hung out in four years!

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Realized my hairline looks like that of a 50 year-old (I am 19). Doctors could not give me a reason other than poor genetics.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

My mom got mad at me for sitting at home for long periods of time. I am introverted by nature so games help me escape for a while, but I realized how unhealthy it was.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Participating in any active sport or competition-based setting. Proves I am able to, which gives me self-worth.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of
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<u>HAPPENED TO YOU?</u>	this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Knowing what I'm worth and not letting guys (or girls) treat me like an object.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Relationship with God wasn't as strong as it should have been, fear set in and I lost balance.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

I got my next belt in Karate. After my testing they gave me my belt and it felt good to move up a level.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

During the last year of high school, I decided to run for Student Council. At first I was very excited and confident, but after finding out who my competition was, I got scared and nervous. One day, my fear of losing to my competition got so bad I ended up panicking and crying in a bathroom stall at school alone. I didn't want people thinking I was afraid, as I am normally seen as a cheerful person.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When I got my G2 driver's license. I didn't think I would pass the first time but I passed and I was really proud of myself as well as more confident.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I was in a relationship with a person for several years. Our relationship was very sexual toward the last year. It got to a point where I felt like this person was only with me for the sexual aspect of the relationship. I did not feel good about myself then and I started worrying more about who I really was and if being in this relationship was really good for me. Luckily, we broke up and now I feel much, much better about myself.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When someone says they don't like me. A girl that I used to hang out with says she doesn't like me, for no reason.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Friends are growing more distant (very recently). Friends change and right now everyone changes the way they act and it's not always for the best. I have been losing more and more friends recently.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

The time I lost my uncle. It was hard on myself and my family.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

My best friend just stopped talking to me. We were in the same classes, worked on the same projects, but she wouldn't talk to me. After we've been friends since middle school.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I remember this party that I went to with my friends. I looked good at the beginning of the day, but later on my look was totally ruined. My self self-esteem decreased because this didn't happen to my friends, and they looked better.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

My mother told me that she wished she never had me.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I got rejected by someone I was really good friends with, then losing them.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I got a promotion at work faster than most people due to my work ethic.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of
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<u>HAPPENED TO YOU?</u>	this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

A crazy high school project building computers. Brought in a computer built by me and a friend and it felt good when we stole the show.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When I got a mark back for one of my very first assignments and I passed.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When I met my significant other, he appreciated me, valued me, and made me a stronger person emotionally and brought out the best in me.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

I went to the beach last summer and was partying and having fun. I felt confident in my bathing suit and around the people I met there.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When I started to attend university. I had to take the bus to school so I see strangers all the time. I was very afraid of talking to people I don't know, so one day I talked to someone on the bus and we became friends.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Every time I get reunited with my three best friends.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

The time my best friend left to go to school in another province, although she did so much wrong to me, she was always there for me and that was the first time we were ever apart and I felt so alone.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

At work, a customer told me that I was working slowly.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I do make up for friends I like to hear how much they liked it. So I remember one day doing make up for my friend because she had this party to attend. When she went to the party, everyone actually complimented her make up and asked her which salon did she go to? When she told me, I was so happy and excited for the fact that I was actually doing make up like professionals.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
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YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

My friend told me that I'm their favourite person to study with.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Whenever I volunteer to do a specific task on an event and I'm not able to deliver the task, and I need to give the task to someone else. Seeing them actually finish it makes me look at myself-worth a little low.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

I was at a screening test and when I asked the examiner if I passed the time requirement, she said no.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Recently, I got invited to more parties and outings with friends more often.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

I got a nose piercing and my parents got mad. Even though I told them that I was going to get one, they were still mad. My mom even said a bad word to me.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)

NO	<i>Interpersonal concerns</i> (related to other people, relationships)
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I was always the person to turn a good day into a nightmare.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

I started to see my weight go down. It was nice to see some progress if even by a little.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When the manager made me a merchandiser. Usually the slower people work at cashier, but I'm finally good enough to do other things!

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Not getting into my first choice university program a few months ago.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i>	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

I had two members of the opposite sex tell me they find me attractive.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of
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<u>HAPPENED TO YOU?</u>	this situation?
YES: 1 = only a little 2 3 4 5 6 7 = very much	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When someone doesn't understand or like my art that I put a lot of effort into.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = only a little 2 3 4 5 6 7 = very much	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

The time I realized I didn't need my old friend group anymore since they were people who always brought my self-esteem down.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = only a little 2 3 4 5 6 7 = very much	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When someone I thought I was friends with didn't invite me to their birthday party.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = only a little 2 3 4 5 6 7 = very much	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

When members of the opposite sex message on social media. Although they can be annoying, I still get this good feeling that they think I'm hot or something.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = only a little 2 3 4 5 6 7 = very much	<i>Personal concerns</i> (independence, mobility, achievement)
NO	<i>Interpersonal concerns</i> (related to other people, relationships)

Every time my best friend comes home from where they live now.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

My 18th birthday when I spent it just drinking with my best friends and significant other and I felt so loved.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

At family gatherings a relative always points out how over-weight I am.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When a recent love interest took me to the movies even though they hated movies, they just wanted to see me happy.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

The first time I was told "I love you" by my significant other. Up until that point I was a fairly cold-hearted person in regards to love. When they said it, I felt as though I had changed and I could change and I saw myself in a different light.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I don't look as good as I could, for example, not dressing up properly while I'm able to dress up better due to certain circumstances, or having my hair style ruined for any reason.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

When I did a presentation in front of class. That was something that I feared so for it to finally happen let me feel good about myself.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

I wanted to go to a particular school but I got waitlisted. Really prepared me for future disappointments.

(A) Would this situation <i>affect your self-esteem</i> <u>-IF IT HAPPENED TO YOU?</u>	(B) Who / What <u>DO YOU THINK</u> is the main focus of this situation?
YES: 1 = <i>only a little</i> 2 3 4 5 6 7 = <i>very much</i> NO	<i>Personal concerns</i> (independence, mobility, achievement) <i>Interpersonal concerns</i> (related to other people, relationships)

Thank you very much for completing this exercise!

Appendix J

Table of Study 4 Means and Other Descriptive Statistics for Top Quartile Subsets

Top Quartile Group	Variable	<i>n</i>	<i>M</i>	<i>SD</i>	Min-Max
Sociotropy		30	3.15	.20	2.93-3.72
	BDI-II		23.4	10.96	3.00-48.00
	POMS Negative		1.33	.84	.08-3.77
Independence		33	3.37	.21	3.12-3.76
	BDI-II		15.97	10.67	1.00-47.00
	POMS Negative		1.11	.99	.17-3.77
Solitude		27	2.43	.34	2.0-3.15
	BDI-II		18.78	10.94	2.0-48.0
	POMS Negative		1.18	.809	.17-3.06

Appendix K

Study 4 General Sample Characteristics

Sociotropy and Autonomy

Scores for SAS subscales range from 0 to 4 (*0 = Describes me 0% of the time to 4 = Describes me 100% of the time*). On the sociotropy subscale of SAS, the mean score for the current sample ($M = 2.3$, $SD = .63$) means that on average participants reported sociotropy items described them slightly more than half the time (58% of the time). Approximately 55% of all participants in this sample had a mean sociotropy score between 2 (i.e., “Describes me 50% of the time”) and 3 (i.e., “Describes me” 75% of the time), followed by 30.5% of participants who had a mean score between 1 (i.e., “Describes me” 25% of the time) and 2 (i.e., “Describes me” 50% of the time), 11.5% of participants who had a mean score between 3 and the highest mean sociotropy score in the current sample of 3.55 (i.e., “Describes me” *slightly* less than 100% of the time), and 3% of participants who had a mean sociotropy score between 0 (i.e., “Describes me” *slightly* more than 0% of the time) and 1 (i.e., “Describes me” 25% of the time).

On the independence subscale of the SAS, the mean score of the current sample ($M = 2.7$, $SD = .46$) means on average this sample scored slightly higher on independence than the other two SAS subscales, reporting on average that independence items described them nearly 68% of the time. Approximately 68% of all participants in this sample had a mean independence score between 2 (i.e., “Describes me 50% of the time”) and 3 (i.e., “Describes me” 75% of the time), followed by 27% of participants who had a mean score between 3 and the highest mean independence score in the current sample of 3.71 (i.e., “Describes me” *slightly* less than 100% of the time), and 5% of participants who had a mean score between 1 (i.e., “Describes me” 25% of the time) and 2 (i.e., “Describes me” 50% of the time).

One the solitude subscale of the SAS, the mean score of the current sample ($M = 1.6$, $SD = .52$) means that on average participants reported solitude items described them 40% of the time. Approximately 66% of all participants in this sample had a mean solitude score between 1 (i.e., “Describes me 25% of the time”) and 2 (i.e., “Describes me” 50% of the time), followed by 20% of participants who had a mean score between 2 (i.e., “Describes me 50% of the time”) and 3 (i.e., “Describes me” 75% of the time), 12% of participants who had a mean score between 0 (i.e., “Describes me” 0% of the time) and 1 (i.e., “Describes me” 25% of the time), and 2% of participants who had the highest mean solitude score in the current sample of 3.15 (i.e., “Describes me” *slightly* more than 75% of the time).

Mood

The negative mood subscale of the POMS was utilized to assess negative mood. POMS negative mood subscale ranges from 0 to 4. The mean negative mood score in this sample was .70 ($SD = .57$). Seventy-eight percent of participants scored in the range of little to no negative mood, 18% little to moderate negative mood, 3% reported moderate to quite a bit of negative mood, and no participants reported extreme negative mood.