Hurtful Messages and Self-Concept: Parental Pessimistic Messages and Emerging Adults' Possible Selves

A DISSERTATION

SUBMITTED TO THE FACULTY OF THE

UNIVERSITY OF MINNESOTA BY

Min Kyong Cho

IN PARTIAL FULFILLMENT OF THE REQUIERMENTS

FOR THE DEGREE OF

DOCTOR OF COMMUNICATION STUDIES

Dr. Ascan Koerner

November 2022

Acknowledgement

Dr. Jaeseong Lee, Dr. Steve Duck, Dr. Alan Sillars, and Dr. Ascan Koerner,

I am wholeheartedly grateful to my great mentors for their unconditional support.

I appreciate you for everything more than words can say.

Without you, I would not have completed my academic journey.

You were, are, and will be my inspiration.

Abstract

The present study experimentally investigated college students' perceived message hurtfulness (PMH) associated with a parent's pessimistic message about their future. The originality of this study is its 2 x 4 x 3 factorial design, which included 24 different combinations of self-perception and parental pessimistic messages as the independent variables and PMH as the dependent variable. Four hundred eighty-four participants completed the online, cross-sectional survey. They were randomly assigned to a writing exercise for priming the self (best vs. worst possible self) and its domain (subjective well-being, personal relationship, career, and general). After the priming exercises, participants were randomly assigned to read one of three hypothetical situations involving a child's receiving a father's pessimistic comment on the future (a child's future on their subjective well-being, relationship, and career). After reading, participants assessed the degree of PMH. ANOVA and multiple regression were used for data analysis. Neither analysis elicited statistically significant results at the .05 level for the influences of self-priming factors on PMH (H1) or domain homogeneity of PMH (H2). Although the manipulation did not work, this study found that biological sex was the most significant factor of PMH at the .05 level. More research is needed to further explore biological sex to better understand the differences between children's sex and PMH in a parent–child relationship.

Keywords: appraisal, possible selves, emerging adulthood, hurtful messages in a parent–child relationship, message hurtfulness

Table of Contents

List of Figures

List of Tables

Chapter 1: Introduction

The purpose of this quantitative dissertation is to examine the experience of college students with hurtful communication received from their parents. The term "hurtful communication" in this study refers to any verbal or nonverbal communication (e.g., words or behaviors) that elicits perceived hurtfulness in the receiver's mind. The perception of a message as hurtful depends on an individual's subjective evaluation of a message. The evaluation of the given message is called "appraisal." Appraisal theorists, such as Lazarus (1991), have noted that a receiver's appraisal is a necessary and sufficient process in causing particular emotions. Appraisal theory supports the framework of this study, which is designed to examine college students' appraisals of messages from their parents.

This study is contextualized in parent–child relationships, which are relatively understudied in hurtful communication research compared to other close relationships, such as dating or marital relationships (except for McLaren & Sillars, 2014; McLaren & Pederson, 2014). However, considering that the content of a parent's (potentially) hurtful messages differs by children's developmental stages, this study mainly focuses on emerging adulthood, the transitional period between adolescence and adulthood (Arnett, 2000, 2004). While emerging adults articulate their future goals and attempt self-development, they also deal with their fears of the unknown future. During this time, parents' optimistic messages are crucial for their children to maintain their motivation for future goals (Ellis, 2002a; Satir, 1967). In contrast, parents' pessimistic messages can harm their children's self-competence, which is an essential component of their positive future selves (McGuire & Padawer-Singer, 1976). Overall, this study supports examining

a social psychological problem in which children's interpretation of a parent's message can cause psychological harm. In particular, this study focuses on messages from fathers (or father figures). In child development literature, father figures have received less attention from scholars, compared to mother figures. More importantly, child development research has tended to show gender differences in parenting. The literature indicates that mothers tend toward more supportive behaviors, and fathers tend toward more directive behaviors (Leaper et al., 1998), with different influences on children's self-development (Ellis, 2002b; Satir, 1967; Sieburg, 1985). These findings are also consistent with recent research findings (Dailey, 2006). Considering the probability of receiving direct, unsupportive feedback from a parent, I chose fathers' pessimistic comments on their children's futures as a parental hurtful message in this study. However, to cause participants the least harm possible, this study focused on hypothetical situation in which a child receives a father's comment. To sum up, considering the context of this study as addressed above, I examine the role of emerging adults' future selves in their perceptions of message hurtfulness (PMH) associated with their parent's pessimistic comments on their futures.

People experience hurt from other people's words or behaviors, and this emotional experience often involves negative affect and discomfort (Priem et al., 2010). However, from an appraisal theorists' view (e.g., Lazarus, 1991), the capability of experiencing hurt relies on an individual's cognitive appraisal, which refers to their evaluation of the stimulus as relevant and significant to their well-being (Lazarus & Folkman, 1984; Roseman & Smith, 2001). Appraisal theory supports the framework of this study, which is designed to examine college students' appraisals of a hurtful message

from their parent. I view hurt as elicited when individuals evaluate someone's words or behaviors toward them as a harm, threat, or challenge to their well-being, making them vulnerable to emotional pain (e.g., Vangelisti, 1994; Vangelisti et al., 2007).

Appraisal is an integral part of hurt elicitation. Thus, many scholars have attempted to identify what factors influence individuals' appraisals of hurtful events (e.g., Feeney, 2005; Theiss et al., 2009; Tokunaga, 2008; Vangelisti et al., 2005). Those factors, broadly, involve an individual's self, the other person, and the quality of the relationship (Ellsworth & Smith, 1988; Mills & Piotrowski, 2009). Of those factors, communication scholars have been particularly interested in those concerning the other person (e.g., an individual's perception of the other person's intention; Vangelisti & Young, 2000; Zhang, 2009) and relationship quality (e.g., an individual's perception of the relationship satisfaction with the other person; Vangelisti & Crumley, 1998; Vangelisti & Young, 2000; Vangelisti et al., 2005); however, they have paid relatively less attention to self-factors. Few studies have examined the influences of self-factors such as self-esteem (Murray et al., 2002) and self-construal (Tokunaga, 2008). This lack of interest in self-factors might give the false impression that an individual's perception is an (relatively) objective reflection of reality. Self-factors are a (relatively stable) cognitive base of appraisal (Vangelisti, 2007). Therefore, it is essential to identify promising self-factors that influence individuals' appraisal processes. To emphasize individuals' subjectivity and supplement understudied self-factors, I examine the influences of self-factors on the appraisal of (potentially) hurtful interactions, focusing on self-concept.

Self-concept consists of self-schemas, which are the individuals' cognitive structures of knowledge about themselves according to the self-schema model of self-

concept (e.g., Markus & Wurf, 1987), (Markus, 1977; Markus & Nurius, 1986; Markus & Sentis, 1982; Markus & Wurf, 1987). However, as Markus and Ruvolo (1989) have stated, "self-schemas are not just memories of past actions or passive generalizations about ongoing actions" (p. 213). Rather, self-schemas actively use individuals' memories of their past actions, affects, and thoughts in specific domains, enabling them to anticipate or estimate their future states: "what might be, and what is possible for them in a given domain in the future" (Markus & Wurf, 1987, p. 213). Markus and Nurius (1986) call this domain-specific, future self-concept "possible selves."

Possible selves refer to individuals' future selves, a set of self-perceptions that they have about their future (Markus & Nurius, 1986). Possible selves consist of hoped-for selves (i.e., ideal selves that one hopes or wishes to become), expected selves (i.e., anticipated selves that one probably will become or is capable of becoming), and feared selves (i.e., unsought selves that one does not want to become). Importantly, according to Markus and Nurius, individuals have many sets of possible selves, but only a certain set of possible selves is activated when relevant messages are given. These characteristics of possible selves, which are the multidimensional, working self-concept, are the central elements of this study. In the context of a parent's hurtful message, I predict that the activated possible selves influence the magnitude of a college student's perceived message hurtfulness (PMH) associated with their parent's pessimistic comment on their future.

To test this hypothesis, I use the priming method, a direct method of increasing the cognitive accessibility of individuals' specific self-perceptions. To activate a particular domain of self-perception for appraisal, imagery of oneself in the

corresponding message domain should be activated in individuals' minds through cognitive and emotional sensory activations, including visual and emotional imagination (Dörnyei & Chan, 2013). The relationship between imagery and emotion has been frequently reported (e.g., Hirsch et al., 2003; Hackmann & Holmes, 2004; Holmes & Mathews, 2005). Holmes and Mathews's (2005) study, in particular, revealed that imagery has a stronger power to arouse emotion than does the processing of its verbalized production. Mental imagery, defined as "an internal representation of a perception of the external world in the absence of that external experience" (Hall et al., 1990, p. 28), can help individuals apply the most relevant self-concept at the moment of appraising the message. Positive mental imagery of self, accompanied by one's belief in the capacity to achieve any desired future goals, may stimulate their defensive efforts to maintain their positive future self-perception, resulting in reduced PMH. In contrast, imagery of a negative future self may lead to increasing anxiety and self-doubt about an individual's self-competence and may intensify PMH associated with a parent's pessimistic comment. Overall, it seems that the contents of imagery, when incorporated in one's mind, differently influence individuals' appraisal processes.

This current study also attempts to increase accessibility to individuals' self-perceptions in a particular domain through self-imagery conditions, and this increased accessibility affects their responses to a parent's pessimistic comment differently. The first hypothesis is associated with the valence of self-perceptions (best vs. worst) on PMH.

H1: Best possible self-priming positively covaries with PMH.

This hypothesis assumes that imagining the best possible self helps individuals to psychologically defend themselves from a hurtful comment. Support for the hypothesis suggests the benefit of imagining one's best possible selves for psychological well-being, for instance, through buffering one's distress when encountering negative interpersonal feedback.

The second hypothesis is associated with the characteristics of the domain-specific, working self-concept. According to Markus and Nurius (1986), possible selves are only activated and available when the domain of possible selves corresponds to the domain of the relevant input. Thus, in this study, I predict that mis(matched) self-domain (subjective well-being, relationship, and careers) is activated and becomes salient through the corresponding domain of a parental message (subjective well-being, relationship, and careers), influencing the PMH.

H2: Domain homogeneity positively covaries with PMH.

The assumption of this hypothesis is that when the self-domain matches the corresponding message domain, accessibility is increased more than when they are mismatched. Support for this hypothesis may have an important implication for intervening in a hurtful parent–child interaction by looking into a parent's hurtful message domain and the domain of a child's incompetent self.

Literature Review

Self-Concept

The self is arguably the central concept in psychology. Many researchers use "self" terms (e.g., self-esteem and self-concept) interchangeably, causing confusion and uncertainty. Byrne (1996) observed that this tendency results from an "assumed synonymy of self terms," which has led to the absence of a "universally accepted definition" of the construct (p. 2). For example, the term "self-concept" is rarely defined in empirical research because researchers presume that everyone knows what it means (O'Mara et al., 2006, p. 181). However, researchers' inconsistent use of the term "self-concept" is noticeable. For example, some use "the self" and "the self-concept" differently but without any clear differentiation between them, and some use "the self-concept" to refer to "self-esteem" (Greer, 2003). To avoid term-related confusion or uncertainty in this study, it is necessary to clarify the term "self-concept."

Historically, theories of the self-concept are highly abstract and general in nature (Markus & Wurf, 1987; Marsh & Richards, 1988), but modern use of the term "self-concept" relies on James' (1890) seminal work on self. In his writings, James argues that individuals naturally take themselves as objects of self-reflection and that reflecting on themselves involves two psychological aspects of self, "I" and "me." According to James, "I" is the subject of one's thinking or thoughts ("I am thinking") and "me" is the object of it (…"about me"). In addition, James describes "I" as the knower (self-as-the-knower), the active perceiver, and the actor who serves an executive function of self. In contrast, James describes "me" as the known aspects of self (self-as-the-known). Following James' distinction, "the self" as an agent is equivalent to "I," whereas "the self-concept" as a set

of self-perceptions known to oneself is equivalent to "me": self-concept is "an empirical aggregate of things objectively known" (James, 1890, p. 197). Following James' approach, most researchers view self-concept broadly either as one's self-perceptions about oneself (Shavelson et al., 1976; Shavelson et al., 1982, p. 3) or as the content of what individuals believe as true about themselves (Baumeister, 1998; Forgas & Williams, 2003).

Social Aspect of Self-Concept

Although it recognizes that an individual's self-concept involves their introspection, the nature of self-concept is not constrained to its intrapersonal traits (Marsh et al., 2008). Individuals develop their complex visions of self-concept as they experience and interpret their social environment (Baumeister, 1998; Kelley, 1973; Markus & Nurius, 1986; Marsh et al., 2008; Shavelson & Bolus, 1982; Shavelson et al., 1976). This approach has been the source for the "mirror" or "reflection" theory of self-concept (Riding & Rayner, 1998). For example, Cooley (1902) introduced the metaphor of "the looking glass self" to illustrate that an individual's mind reflects how they are being treated and evaluated by others, especially important others such as their parents, teachers, or peers. Cooley argues that these mirror reflections in individuals' minds become the information they use to define themselves. In other words, Cooley contends that self-concept represents an individual's personal inferences about how others perceive them. Similarly, Mead's (1934) symbolic interactionism theory also argues that the social environment has a pervasive influence on the individual through the socialization process, especially with in-group members (i.e., individual members of the same social group). Similarly, Coopersmith (1967) emphasizes the importance of important others'

influences on an individual's formation of self-concept: "each person's self-concept, to a considerable extent, is a mirror reflection of how he has been (and is) seen by others who are important to him" (p. 201). This social aspect of self-concept highlights the importance of an individual's reflexive capacity, which is their awareness of their own thinking and of the self as an object of reflection (Kihlstrom et al., 2003; Lewis, 1990).

From an information-processing perspective, knowledge about the self, which is produced by the self-reflecting process, is organized in memory (Markus et al., 1982; McConnell, 2011). While theories of self-concept agree on the notion that reflexive capacity is crucial, they diverge on *how* memory is considered to function in the service of sustaining the self (Oyserman et al., 2012). On the one hand, the self can be viewed primarily as a memory structure, such that self-concept (a set of self-representations) exists outside of particular contexts and social structures. On the other hand, the self can be viewed primarily as a cognitive capacity, such that it constitutes a self-concept that is created inside of and embedded within moment-to-moment situations (Oyserman et al., 2012)

Multiplicity of Self-Concept

Until the late 1970s, self-concept was thought of as a single, generalized self-perception that is relatively consistent and undifferentiated across domains (Bracken et al., 2000; Byrne, 1984; Coopersmith, 1967; Harter, 1990; Marx & Winne, 1978; Wylie, 1989). However, this belief in a single-domain self-concept has been replaced with a multifaceted self-concept, which is now accepted by most (Bracken et al., 2000; Markus & Wurf, 1987; McConnell, 2011). The multifaceted nature of self-concept assumes that the self is cognitively represented by multiple aspects (Linville, 1985). Markus and Wurf

(1987) called this change in the understanding of the self-concept an important "realization" of research on the self and argued that self-concept can no longer be examined as if it were a single unitary construct (Markus & Wurf, 1987). Although researchers have converged on a multifaceted self-concept (Bracken et al., 2000), they still vary in how they describe and elaborate on the multifaceted self-concept in memory. Among recent models of self-concept, two are particularly relevant to this paper: a) the multifaceted, hierarchical model of self-concept and b) the self-schema model of self-concept.

A Multifaceted, Hierarchical Model of Self-Concept. One widely recognized model is the multifaceted, hierarchical model of self-concept (Shavelson et al., 1976). In this model, one's global self-concept and domain-subject-specific self-concept are integrated and organized hierarchically (Marsh, 1993; Marsh & Shavelson, 1985; Marsh et al., 2006; Shavelson & Bolus, 1982; Shavelson et al., 1976). The general or global self-concept is located at the top, and domain-specific self-concepts (e.g., academic and non-academic self-concepts, and social, emotional, and physical self-concepts) are located at the next level down. More discrete, subject-specific self-concepts are located at the next lower level. For example, academic self-concept can include subject-specific self-concepts such as English, history, math, and science self-concepts. The social self-concept can include self-perceptions regarding peers and important others, and so forth. Similarly, Bracken (1992) suggested the multifaceted, hierarchical self-concept model. In this model, unlike Shavelson et al.'s (1976) model, Bracken suggests six domains of the self-concept: social competence, affect, physical, academic, and family self-concepts. Finally, Cole et al.'s (2001) multifaceted, hierarchical model posits five domains of the

self-concept: academic competence, physical appearance, behavioral conduct, social acceptance, and athletic competence. Research on multifaceted hierarchical models has been instrumental in both validating a multifaceted structure for the self-concept and in moving the field toward consensus. However, findings relating to developmental changes in the hierarchical nature of self-concept have been mixed (Byrne, 1984, 1996; Riding & Rayner, 2001, p. 31).

The Self-Schema Model of Self-Concept. The self-schema model of self-concept is another prevailing view of the self-concept that adopts a cognitive approach that has been prominent in social psychology for decades (Markus & Zajonc, 1985). In general, schemas are defined as domain-specific knowledge structures that are shaped by an individual's life experience and self-reflection (Cantor, 1990; Stein, 1995). Once schemas are established in memory, they function as organizing frameworks that enable an individual to a) selectively focus on stimuli, b) draw inferences and attribute meaning to the stimuli, c) store relevant information for later use in the long-term memory, and d) plan and execute a coherent and purposeful response (Cantor, 1990). Schemas are also considered to be hierarchically organized, with the most generalized or most abstract domains located at the highest level. The categories of specific information are bound together within each generalized domain (e.g., academics), and specific examples of each category are located at the lowest level of the hierarchy (e.g., history, English, and mathematics; Taylor et al., 1978).

Self-schemas are individuals' cognitive structures of knowledge about themselves (Markus, 1977; Markus & Nurius, 1986; Markus & Sentis, 1982; Markus & Wurf, 1987). Self-schemas are relatively stable knowledge structures that integrate and summarize an

array of information and experiences (Markus & Sentis, 1982). Because self-schemas are developed for many different aspects of individual life experiences, they facilitate information processing such that individuals can quickly accept congruent information and reject incongruent information (Markus, 1977).

Markus views self-schemas as the critical component of self-concept. Markus et al. (1985) define self-concept as "a set of self-schemas that organize past experiences and are used to reorganize and interpret relevant stimuli in the social environment" (p. 1495). Later, Markus updated the definition of self-concept to describe a more expansive temporal phenomenon than is reflected by individuals' past experiences. Markus and Ruvolo (1989) observe that "self-schemas are not just memories of past actions or passive generalizations about ongoing actions" (p. 213). In addition, self-schemas are "affective-cognitive structures that are constructed creatively and selectively on the basis of one's experience in a given domain" (p. 212). In this updated definition, Markus emphasizes the domain-specific nature of self-schemas and their structure, which reflects memories of both actions (what happened) and of affects and thoughts regarding those experiences. On the basis of those individuals' appraised experiences (actions, affect, and thoughts), Markus claims that self-schemas not only generalize and arrange self-relevant information into domains but also, more importantly, allow individuals to "go beyond the information given" (p. 213), that is, to anticipate what might be and what is possible for them in a given domain in the future (p. 213). Markus and Ruvolo consider this anticipating function as one of the most important functions of self-schemas (p. 213). Simply put, from Markus' perspective, self-schemas are not memory storage boxes serving mainly to process (incoming) information. Rather, self-schemas actively use

individuals' stored memories to anticipate or estimate their future states. Thus, Markus extends the temporal scope of self-concept by acknowledging the anticipating function of self-schemas.

Markus' schema model is a useful framework that emphasizes the multiplicity of self-concept, which has rarely been spotlighted in communication literature. Rather than defining self-concept as a single, average view of the self (i.e., global self-esteem), Markus' self-schema approach defines self-concept as a rich, multifaceted cognitive structure (Greenwald & Pratkanis, 1984; Markus & Wurf, 1987). According to this model, the self-concept is a person's total collection of self-cognitions that includes their self-schemas, possible selves, and other less-fully elaborated self-images (Markus & Wurf, 1987; Stein, 1995).

Possible Selves

The concept of "possible selves" is a critical component of self-concept. Broadly, possible selves are individuals' future selves, and they are structurally multifaceted, domain-specific self-concepts. Markus and Nurius (1986) did not articulate how these possible selves are organized in memory (McConnell, 2011). However, possible selves are assumed to be hierarchically organized knowledge structures that include generalizations or abstractions about the domain at the highest level, categories of more specific information bound within the generalizations, and specific examples of the categories at the lowest level of the hierarchy (Stein, 1995; Taylor et al., 1978). Markus and Nurius (1986) also argue that possible selves highlight a more dynamic aspect of the self-concept than does the static aspect widely presented in the literature. Unlike current selves, possible selves are less rooted in social reality because they are as-yet-unrealized

selves (Carver et al., 1994). Possible selves are quite responsive to changes in the environment and reflect those changes (Markus & Nurius, 1986; Yang & Noels, 2013). They also reflect individuals' own interpretations of personal experiences in given events or situations (Markus & Nurius, 1986). For those reasons, the content of possible selves is thought to be flexible and changeable. Markus and Nurius (1986) believe that this changeability of possible selves can be a strong motivation. Individuals "need" to lead themselves to their desired future goals: "possible selves….can be viewed as cognitive bridges between the present and future, specifying how individuals may change from how they are now to what they will become" (p. 961).

Markus and Nurius (1986) identified three different types of possible selves: hoped-for, expected, and feared selves. These are cognitive self-representations or self-conceptions manifesting individuals' enduring aspirations (hoped-for), realistic expectations (expected), and fears for their futures (feared selves). First, the hoped-for selves are aspired selves that one feels the possibility of becoming but which may or may not be realistic. In other words, as manifestations of individuals' future self-conceptions, hoped-for selves are who they want to be or are striving to become, regardless of plausibility. They could reflect unlikely wishes, and in this sense, the hoped-for selves are similar to Higgins' ideal self (Higgins et al., 1986). In contrast to hoped-for selves, feared selves are individuals' future self-conceptions of who they are afraid of becoming, want to avoid becoming, or do not want to become but fear the possibility of becoming (Markus, 1977; Markus & Nurius, 1986). Unlike the hoped-for and feared-for selves, expected selves manifest realistic goals that one's energies are actually striving for (Carver et al., 1994). Expected selves are those whom individuals believe they

realistically will become or are capable of becoming. From this standpoint, the expected selves are different from the hoped-for selves, which are farther away from the present selves. However, when hoped-for selves are viewed as being attainable, with specific scripts and plans, the hoped-for selves evolve into positive expected selves (Oyserman & Markus, 1990). If the hoped-for selves are not viewed as attainable because they lack specific plans and psychological investment, the hoped-for selves do not evolve into positive expected selves. In this case, individuals do not always feel great losses, even if their hoped-for selves are not achieved (Oyserman & Markus, 1990). Contrary to the process of becoming positive expected selves, the feared-for selves evolve into negative expected selves when individuals' fears are likely or expected to happen.

Functions of Possible Selves

While confirming possible selves is impossible, possible selves are still important for individuals' daily functioning. Possible selves, as self-knowledge about future states, provide information that becomes self-motivation and a self-evaluative standard for an individual's future (Markus & Nurius, 1986). Possible selves are a motivational construct and are thought to influence changing individual behaviors (Comello, 2009; Markus & Nurius, 1986). Possible selves do not represent the future in terms of generalized and non-personalized goals (e.g., achieving intimacy) or threats (e.g., avoiding illness). Instead, possible selves involve highly specific and personalized goals (e.g., *me* happily married and pursuing my master's degree) or threats (e.g., *me* the victim of breast cancer; Cross & Markus, 1991; Markus & Nurius, 1986). For these reasons, researchers have studied the self-regulatory function of possible selves, focusing on students' academic

achievement. For example, Oyserman et al. (2004) found that academic outcomes improved only when students' articulated possible selves were present.

First, possible selves function as motivation for individuals' future behaviors. According to Markus and Nurius (1986), because possible selves are self-relevant and personally particularized future selves, knowing "what is possible for me" is likely to promote behaviors corresponding to possible selves. More specifically, individuals are likely to behave in favor of their hoped-for selves and in disfavor of their feared selves (Markus & Nurius, 1986). Oyserman and Markus (1990) reported four examples of adolescents' possible selves, with participants describing what was possible for them in the future and specifying what they hoped, expected, and feared they would be in a year. Possible selves can be incentives that help individuals to prepare themselves for their desired future goals and to prevent themselves from doing irrelevant or harmful behaviors that could become obstacles to pursuing their goals.

Second, possible selves function as personalized standards that individuals use to evaluate and interpret their current selves. According to Markus and Nurius (1986), possible selves serve as comparisons or evaluation points that individuals use to evaluate their current selves. Through this evaluation process, individuals can gauge their progress and the distance between their current and hoped-for selves (Cross & Markus, 1991; Markus & Nurius, 1986). This evaluative function becomes particularly salient when individuals encounter self-relevant situations, which may influence their beliefs or perceptions of the likelihood of achieving their hoped-for selves or avoiding their feared selves (Robinson et al., 2003). According to Cross and Markus (1991), in this kind of situation, possible selves can function as psychological resources that individuals use to

affirm or defend their current views of the self. By doing so, individuals' perceived discrepancy might be decreased (in the case of hoped-for selves) or increased (in the case of feared selves), reducing momentary negative feelings about the self (Cross & Markus, 1991)

Possible Selves and Affective Experience

Since the possible self was developed as the construct in the mid-1980s, its literature has grown rapidly (Packard & Conway, 2006). Researchers' approach to possible selves ties cognition to motivation (Markus & Nurius, 1986), which enables researchers to explain resulting behavioral outcomes (e.g., adolescents' academic outcomes and risk-taking behaviors). However, as Markus and Nurius (1986) observed, the value of possible selves is not limited to the behavioral aspect of self-regulation. Possible selves also play critical roles in relating cognition to affective experience.

Among three types of possible selves (hoped-for, expected, and feared), expected possible selves are particularly important in individuals' affective experiences. Expected selves are taken as realistic goals rather than unlikely wishes and as the focal point for one's energies in striving for the future (Carver et al., 1994). In contrast to hoped-for selves, feared selves are those that one does not want to become but nevertheless fears the possibility of becoming. These feared selves tend to be negative, and they are likely to evolve into negative expected selves. Oyserman and Markus' (1990) study confirmed this theoretical view. They found that positive hopes and negative fears were highly correlated (r = .50) with positive expected and negative expected selves, respectively.

Working Self-Concept in Emotion Elicitation. Markus and Nurius (1986) proposed the "working self-concept" mechanism to explain the dominance of some self-

conceptions over others (Comello, 2009; Markus & Nurius, 1986). The working self-concept is a certain set of self-representations that is active in working memory at any point in time (Markus & Kunda, 1986) and becomes (currently) accessible and dominant over other self-representations (Markus & Nurius, 1986). Markus and Nurius (1986) view the possible selves as the working self-concept that is differentially activated by various social situations.

Theoretically, all possible selves may be chronically active in working memory; however, Markus and Nurius (1986) argue that less-fully elaborated possible selves may fluctuate in their accessibility in response to a context's external inputs. Besides, according to Markus and Wurf (1987), some self-concepts possess a high personal relevance and function as central characteristics of an individual, whereas other descriptions are less personally relevant and more peripheral. Therefore, in a particular context, self-descriptions with high self-relevance are perceived as more important than the others. In addition, Markus and Nurius (1986) argue that possible selves possess a pattern of domain specificity, which highlights the multidimensional nature of self-concept. In other words, possible selves are only activated and available when the domain of possible selves corresponds to the domain of external inputs. This domain specificity of possible selves has been salient in educational psychology, in which academic outcomes are systematically related to academic components of self-concept but nearly unrelated (or even negatively related) to nonacademic components of self-concept and to global self-esteem (Byrne, 1996; Marsh, 1993).

The distinct features of possible selves, as the working self-concept, have important implications for intervention programs designed to affect behavioral regulation

(Markus & Nurius, 1986). For example, Norris (1988) has suggested that while a newly formulated and feared possible self as a "pregnant teen" or "victim of AIDS" and the associated safe-sex strategies may be salient in one's memory during a health education visit with a nurse, a totally different array of possible selves may be activated during an after-prom party with one's boyfriend.

Possible Selves and Relational Communication

Although the concept of possible selves has not been directly explored in the field of relational communication, its relevance and potential have been acknowledged. Comello (2009) has observed that communication is a source of external stimuli that activates possible selves. For example, Comello suggests that in the interpersonal communication context, the presence of different conversational partners elicits an individual's different selves. In addition to communication as an initiator, he suggests that different relational contexts (e.g., a parent–child relationship, romantic relationship, friendship) matter in the activation of different sets of possible selves.

A Parent–Adolescent Relationship

Adolescence is a significant developmental stage in the study of possible selves. A body of empirical evidence has accumulated on the content and consequences of possible selves in adolescence (Oyserman & Fryberg, 2006). From early adolescence, the future is an essential element of self-concept (McGuire & Padawer-Singer, 1976), and adolescents are capable of generating long-term visions of themselves (Yoo et al., 2013). Adolescents experiment with a variety of possible selves before selecting the selves to which they commit (Oyserman, 2006). Adolescents must identify who they can become in the future, although it is not necessary that they have concrete strategies for attaining their possible

selves (Oyserman & Fryberg, 2006). For example, academic success is an important domain in adolescents' possible selves (Oyserman et al., 2006), but not all adolescents have specific strategies to achieve this academic possible self.

Adolescent autonomy does not, ideally, develop in isolation but in a close and enduring relationship with parents. During adolescence, children negotiate autonomy with their parents (Noller, 1995). However, this does not mean that adolescents are capable, cognitively and emotionally, of completely withdrawing from parental influence. Even though peer groups become important sources of feedback, as adolescents spend a substantial portion of their day at school (Oyserman & Fryberg, 2006, p. 22), parents influence their children's psychological functioning until and sometimes beyond adolescence (Salisch, 2001). Some adolescents may also need help in differentiating their own interests from the expectations of their parents (Noller, 1995).

A Parent–Emerging Adult Relationship

From adolescence into emerging adulthood, the parent–child relationship must evolve into one that supports independence and autonomy while maintaining strong attachment and emotional connection with parents (Aquilino, 2006; Hill & Holmbeck, 1986; Ryan & Lynch, 1989). According to Arnett (2000), emerging adulthood is the developmental life phase from the late teens through the mid-twenties (ages 18 to 29), which emerged in the 21st century within industrialized societies. Individuals in emerging adulthood have left the adolescence but have not yet entered adulthood where marriage, parenthood, or other traditional adult roles are expected. They explore many possible directions for their future, growing their independence.

Although emerging adulthood is a time of possibility for positive changes (successes), emerging adults also must manage their fears of negative changes (failures) in adulthood. According to Arnett (2004), emerging adulthood has five defining features: it allows individuals to pay greater attention to their own lives (self-focus); encourages them to search for meaning in their lives; inspires them to have optimism about the many options before them; allows them to change their residence, jobs, and relationships more frequently than at other times of life (instability); and allows them to acknowledge feeling not quite like adolescents any longer but also not yet fully like adults (feeling in-between). How to manage negative uncertainty, such as fear of failure, during this instable time is critical for emerging adults to successfully adapt to adulthood.

Possible Selves and Hurtful Communication

The Nature of Hurt

Hurt is an ambiguous emotion that has been difficult to isolate in relation to other emotions (Feeney, 2005; Leary et al., 1998.; Vangelisti, 2009). Despite the growing scholarly interest in hurt over the past decade (Vangelisti, 2009), it has been challenging to conceptualize the experience that people colloquially call "hurt feelings" (Leary & Leder, 2009).

Some scholars view hurt as a blended emotion, such as a mix of sadness and fear (Vangelisti, 2001; Vangelisti & Young, 2000), whereas others view hurt as a distinct emotional reaction based on individuals' personal experience (Leary & Springer, 2001; Leary et al., 1998). In addition, some scholars see hurt feelings as the undifferentiated affect that accompanies all negative emotional states (Barrett et al., 2007). Although

incongruent views on the nature of hurt feelings exist, most scholars agree that hurt feelings necessarily involve emotional injury or harm (Folkes, 1982; L'Abate, 1977).

First, hurt is physical-like psychological pain. "Pain is a complex, multidimensional perception that varies in quality, strength, duration, location, and unpleasantness" (McGrath, 1994, p. 55). Hurt is comparable to physical pain caused by bodily injury (Leary & Springer, 2001). However, it is unpleasant, physical-like pain in our heads, not our bodies (Biro, 2010; Shneidman, 1996), and it is inherently psychological in nature. Physical pain is a signal of physical injury to the body, whereas psychological pain is a "physical-like" pain localized to the body part that has not been injured (Biro, 2010; Shneidman, 1996). Despite this contrast, physical and psychological pain share an underlying felt structure (Biro, 2010). Empirical study of psychological pain has indicated that psychological pain seems to run on the same neural tracks as physical pain (Eisenberger et al., 2003). In addition, physical pain is commonly described with weapon metaphors, such as of shooting or stabbing (Scarry, 1985). Overall, people experience psychological pain and physical pain similarly (DeWall et al., 2009).

Second, hurt is social pain that occurs while people interact with others. Vangelisti (1994) notes, "feeling hurt, by its nature, is a social phenomenon. Except in relatively rare circumstances, people feel hurt because of some interpersonal event, something they perceive was said or done by another individual" (pp. 53-54), such as rejection or devaluation (Feeney, 2004, 2005; Leary et al., 1998; MacDonald & Leary, 2005; Vangelisti et al., 2005). People can experience hurt in any interaction (Vangelisti & Young, 2000), but research indicates that they are more vulnerable to being hurt by someone in close relationship with them (Leary et al., 1998). People in close

relationships, such as friendships, romantic relationships, or family relationships, are likely to experience high degrees of hurt (Leary et al., 1998).

Third, hurt is emotion that involves cognitive appraisals. From an appraisal theorist's view, emotions are elicited by individuals' evaluations (i.e., appraisals) of events and situations (Lazarus & Folkman, 1984; Roseman & Smith, 2001). During appraisal processes, individuals evaluate the significance of what is happening for their well-being (Lazarus & Folkman, 1984). If individuals appraise a stimulus as relevant to them and as facilitating or obstructing their needs, goals, or desires, then they will experience physiological arousal and a "felt tendency" to either approach or avoid the stimulus. This felt tendency, along with their positive or negative appraisals, constitutes the experience of emotion (Leary & Leder, 2009). Therefore, although it is unclear in which emotional territory hurt dwells, it is widely considered to be an emotion elicited through cognitive appraisal (Leary & Leder, 2009).

Cognitive Appraisal and Hurt-Eliciting Incidents

A message's hurtfulness does not determine its negativity (Perlman, 2009). In appraisal theorists' views (e.g., Lazarus, 1991), the capacity to experience hurt is determined by a message receiver's evaluation of the personal meaning of the given message, or their cognitive appraisal (Lazarus, 1991). Hence, messages perceived to be hurtful are not confined to those thought to be negatively valenced, such as verbal aggression or harsh criticism. It is plausible that messages thought to be positively valenced, such as compliments and praises, could also be appraised as hurtful. Therefore, hurt occurs when people perceive that someone else's words or behaviors cause them emotional pain (Vangelisti, 1994; Vangelisti & Young, 2000; Vangelisti et al., 2007).

Appraisal Theory

According to appraisal theory, appraisal is a necessary and sufficient process that causes particular emotions (Lazarus, 1991). The essence of appraisal is an individual's subjectivity. The elicitation of emotion does not depend on the situation; it is an individual's evaluation of the situation that gives a particular meaning to their emotional experiences (Lazarus, 1991). Of course, appraisal is an intrapersonal process, but it is far from information processing *per se*. Grinker and Spiegel (1945) write that "appraisal of the situation requires mental activity involving judgment, discrimination, and *choice of activity, based on largely on past experience*" (p. 122). A central tenet of appraisal is the personal meaning underlying individuals' responses (Lazarus, 1991; Lazarus & Folkman, 1984). In other words, an individual's response to an emotion-eliciting situation reflects the importance the situation's relevance to them and the central concern of their individual well-being (Schmidt et al., 2010) in the situation. Therefore, if individuals do not recognize personal relevance or concerns, there will be no further appraisal (Leary & Leder, 2009, p. 35). More specifically, Lazarus (1991) distinguishes (perceived) causes that are appraisals from those that reflect individuals' knowledge, arguing that appraisals involve the assessment of personal relevance. Perceived causes are thus appraisals when they include an implicit or explicit evaluation of the association between the stated cause (or some aspect of it) and the individual's well-being. People may assign causes to events without ever evaluating the personal relevance of those events (e.g., she broke the cup because she is clumsy). However, when people assign causes to their emotions, they necessarily consider personal relevance. Emotions are defined and distinguished by individuals' assessments. Each appraisal component addresses one of the two general

appraisal issues originally proposed by Lazarus and his colleagues as relevant to well-being under stress (e.g., Lazarus, 1966; Lazarus & Folkman, 1984): primary appraisal concerns whether and how the encounter is relevant to the person's well-being, and secondary appraisal concerns the person's resources for coping with the encounter.

Primary Appraisal. Evaluations of the impacts of the environment on a person's goals, needs, or desires are "primary appraisals" (Lazarus, 1991). Primary appraisals occur almost immediately and prompt the person to ascertain whether their goals, needs, or desires are relevant, beneficial, or harmful to their well-being (Smith & Kirby, 2001). In the case of hurt, the relevant goal can be a person's desire to be valued by a partner (Leary et al., 1998) or to maintain a view of the self as worthy of love (Feeney, 2005). When those goals or desires are unmet, individuals are vulnerable to hurt.

Hurt involves an individual's sense of vulnerability. Shaver et al. (2009) describe individual vulnerability to the experience of hurt as follows:

> A core feature of hurtful events is their capacity to destroy a person's sense of safety and security, which is related to, but not exactly the same as, the person's positive views of self and others…deeply hurt feelings are likely to occur only when a partner's actions or words pierce one's deep, visceral, generally unconscious sense of safety and security. (p. 99)

Similarly, Feeney (2005) has stated that the key to hurt is, in fact, a sense of personal injury, defined as "damage to the victim's view of self as worthy of love, and/or to core beliefs about the availability and trustworthiness of others" (p. 256). In a family, a parent or a parent figure is a person who is, or should be, reassuring and supportive so

that a child develops a sense of security. Thus, when a parent's message threatens a child's belief in them as supportive, the child is vulnerable to being hurt.

Secondary Appraisal. Individuals navigate their available resources and options to cope with emotion-eliciting situations, considering consequences of their actions (Lazarus & Folkman, 1984). Secondary appraisal can include assessing behaviors that can change a physical situation the individual encounters (Folkman et al., 1986), or cognitive reappraisal that re-evaluates the situation and produces new interpretations or insights about it (Lazarus, 1991). According to Lazarus and Folkman (1984), coping is not just about behavioral strategies that respond to the situation. It also involves cognitive strategies that manage psychological stress. Folkman et al. (1986) identified eight cognitive and behavioral strategies that people use to cope with stressful or emotion-evoking encounters: 1) "being confrontive" involves aggressive efforts to change the situation; 2) "distancing" involves detaching oneself from the situation; 3) "focusing on self-control" is regulating one's feelings and actions; 4) "seeking social support" involves efforts to acquire informational, emotional, or tangible assistance from others; 5) "accepting responsibility" is one's acknowledgement of their responsibility for the situation; 6) "engaging in escape-avoidance" involves behavioral efforts to escape or avoid feelings; 7) "problem-solving" involves deliberate efforts to improve the situation; and 8) "positive reappraising" is one's efforts to find positive meaning and personal growth from the situation.

An emotion not only makes people feel but also inclines them to act (Frijda, 1986). In an emotion-eliciting situation, people select a regulation strategy from all the available options (Frijda, 1986). Following the same line of thought, communication

scholars have examined the coping strategies people tend to choose in a hurtful situation. Individuals' responses to hurtful messages vary (e.g., asking for an explanation, ignoring the message, crying, or laughing; Vangelisti & Crumley, 1998); however, being hurt often leads to distancing themselves from the source of their pain (McLaren & Solomon, 2008; Vangelisti & Young, 2000). McLaren and Solomon (2008) found that relational distancing is the primary coping mechanism that people chose in response to hurtful messages. Vangelisti and Young (2000) found that individuals tend to choose relational distancing when they identify their partner's hurtful messages as ill-intentioned. The authors also note that individuals may choose distancing even if they perceive the partner's message to be unintentional, as when they perceive a relationship with their partner as difficult to continue (e.g., their partner as unsuitable to work with or inconsiderate because of their recurring hurtful messages).

While relational distancing is associated with hurt feelings (Shaver et al., 2009, p. 108) and an action readiness to emotional pain (Vangelisti & Young, 2000), there are alternative ways to react to emotional pain. Vangelisti and Crumley (1998) found three general dimensions of reactions to hurtful messages: active verbal, acquiescent, and invulnerable responses. Active verbal responses include attacking the other, defending the self, reacting sarcastically, and asking for or providing an explanation. Acquiescent responses include crying, conceding, and apologizing. Invulnerable responses include ignoring the message, laughing, and being silent. Leary et al. (1998) observed that individuals may talk openly with their romantic partners about hurt feelings caused by the partner's transgression or relationship devaluation. In doing so, they may try to discourage the partner's future hurtful behaviors and work toward a warm and satisfying

relationship. In other cases, individuals may decide to comply with the partner's needs and preferences to avoid a breakup (e.g., Davis et al., 2006). Relational distancing is therefore a frequently reported behavioral response to a hurtful interaction, and these findings show that individuals may choose alternatives under different conditions.

Factors for Appraisal of Hurt-Eliciting Messages

The appraisal approach allows scholars to frame appraisal as a relationship-specific, interpersonal communicative process. Hurt is often caused by interactions that involve relational devaluation (Leary & Springer, 2001; Leary et al., 1998) or relationship transgressions (Vangelisti, 2001). Similarly, Feeney (2005) has stated that individuals experience hurt when relationally devaluating or transgressing messages threaten their sense of safety and security, undermining their positive working model of self and others:

> Hurt is an emotion elicited specifically by relational transgressions that evoke a sense of personal injury…In this context, personal injury is defined as damage to the victim's view of the self as worthy of love and/or to core beliefs about the availability and trustworthiness of others. (Feeney, 2005, p. 256)

Vangelisti (2007) groups hurt-relevant factors into three categories: self, other, and relationship-associated factors (p. 130). Hurt involves a complex appraisal concerned with the self, the other person, and the quality of the relationship (Ellsworth & Smith, 1988; Mills & Piotrowski, 2009). Although all three categories of factors are simultaneously engaged in an individual's appraisal of hurtful messages, communication scholars have been particularly interested in factors concerning the other person and relationship quality but less interested in how the message receiver's own characteristics affect appraisal. Thus, few studies have examined aspects of the self, such as self-esteem

or self-construal, in the context of hurtful communication (e.g., Vangelisti et al., 2005; Tokunaga, 2008). This lack of interest in individual differences gives the false impression that a receiver's *perception* objectively reflects the reality of a hurtful message. This way of viewing a receiver's perception underestimates the complexity of hurt-eliciting appraisal, which is individually unique and biased. During the appraisal process, the receiver's characteristics influence their perceptions of both the sender's intentionality and their own relationship quality with the sender. In other words, individual differences, including (relatively stable) personal traits such as self-esteem or attachment, naturally enter the appraisal process (Vangelisti, 2007). To supplement scholars' lack of interest in individual differences as potential factors in appraisal, the next section discusses the factors regarding individual differences.

Self-Factors. Individual differences are not consciously regulated during the appraisal process. Rather, individual differences naturally enter the appraisal processes (Vangelisti, 2007, p. 130). First, self-esteem is possibly the most widely studied personality concept in psychology (Judge et al., 2002) and is known for its "super status" among psychological constructs (Kling et al., 1999). Vangelisti et al. (2005) found that individuals with high self-esteem tend to interpret their experience of hurt feelings more positively than do individuals with low self-esteem. Second, attachment styles refer to individuals' experience-based representational or working models of the world and of themselves in it. According to attachment theory (Bowlby, 1969, 1973, 1980, 1982), these working models are initially based on individuals' actual experiences with their caretakers as children and, once developed, are generalized to new social interactions (e.g., interacting with romantic partners). Feeney (2005) has argued that individuals with

anxious-ambivalent attachment styles tend to appraise their partners' ambiguous behaviors as hurtful or hostile and respond to hurt in a way that further damages their relationships (e.g., retaliation or dependent behaviors). In contrast, individuals with avoidant attachment styles tend to be relatively insensitive to ambiguous or mild rejection cues and respond to hurt by retreating further from intimacy and connection.

Although self-esteem and attachment styles have been found to influence how individuals appraise hurtful events, it is important to note that they represent global variables that might not be diagnostic when examining hurt-eliciting appraisal. Considering that hurtful events are context-specific, more relationally and situationally specific aspects of self-construal could be more important than self-esteem and global attachment. Efforts to assess the delinquent's self-concept, however, have typically relied on measures of self-esteem, and self-esteem alone has not emerged as a powerful predictor of delinquency (Bynner et al., 1981; Gold & Mann, 1984; McCarthy & Hoge, 1984).

Perceived Intentionality and Relationship Quality. The perceived intentionality of a message sender and their relationship quality with the receiver also play important roles in individual responses to hurtful messages. Researchers employing attribution theory assess a message receiver's perception of the reasons for an offender's action (i.e., intentionality or an internal/external locus of causality). For example, Vangelisti and Young (2000) found that individuals who perceived messages as intentionally hurtful reported stronger hurt feelings than did those who viewed messages as unintentionally hurtful. However, regression analysis showed that the effect of perceived intentionality was no longer significant when relational satisfaction and closeness were controlled. This

finding indicates that differences in the intensity of people's hurt feelings may be due more to the quality of their relationships with the people who hurt them than to perceived intent. In another study, Zhang (2009) found that hurtful messages spoken in the context of highly dissatisfying, relatively distant relationships were typically judged as intentional; by contrast, hurtful messages spoken in the context of highly satisfying, close relationships were typically judged as unintentional. Studies have found that individuals with high relationship satisfaction with the offender reported less perceived hurtfulness than those with low relationship satisfaction with the offender (e.g., Vangelisti & Crumley, 1998; Vangelisti & Young, 2000).

Overall, these findings solidify that the other's intentionality and their relationship quality with the recipient are important in the appraisal of hurt-eliciting messages. However, individual differences are also important to consider, especially when considering the unique nature of hurt. Few studies have considered individual differences as predictors of individuals' responses to hurtful situations. For example, Murray et al. (2002) found a negative association between self-esteem and the degree of hurt feelings. In a cultural context, Tokunaga (2008) examined the association between self-construal (independent vs. interdependent) and feelings of hurt. His findings indicated that individuals with interdependent self-construal showed higher degrees of hurt feelings than did those with independent self-construal. In addition, Mills et al. (2002) found that young children's hurt feelings caused by their mothers were strongly related to their own negative self-perceptions, feelings of rejection, and changing feelings about their mothers.

To sum up, investigating the influence of individual differences in hurt-eliciting appraisal is important for two reasons. First, examining individual differences helps scholars to explain differences in individual responses to objectively similar hurt-eliciting stimuli. Second, examining individual differences is essential in distinguishing the uniqueness of hurt-eliciting appraisal from appraisals leading to other negative affective states. Leary and Leder (2009) identified a unique component to hurt that qualitatively differentiates it from other aversive affective states. More specifically, Leary and Leder (2009) found that the reliable variance in self-reported hurt feelings is attributable to (a) undifferentiated negative affect that is common to all negative emotions, (b) specific discrete emotions, such as sadness and guilt, and (c) the unique experience of feeling hurt. Their findings indicate that all negative emotions, including hurt feelings, share a common core of negative affect that contributes to the unpleasantness of the experience ("core affect"; Barrett et al., 2007). However, the findings also indicate that variance in "feelings hurt" is unique and not replaceable with other negative emotions. Leary and Leder (2009) suggest that the unique component of hurt is based on a receiver's past experiences. However, they do not elaborate on this claim. Extending Leary and Leder's (2009) argument that the qualitative uniqueness of hurt might be based on a receiver's personal experience.

Parental Pessimistic Messages

An intense focus on the future is an intrinsic characteristic of emerging adults, who may actively seek from their parents evidence or validation of their capability to achieve future goals. However, not all emerging adult children are raised in a family environment in which parental support for children's futures is expected and

communicated. A parent's pessimistic message implies their doubts or disbeliefs about the child's capability and potential to be successful, and perceived disconfirmation can lower children's competence and self-worth (Vangelisti et al., 2005). In addition, regardless of a parent's intention, if a message is constantly perceived as hurtful by a child, the child's experienced hurt may contribute to their emotional insecurity, negatively affecting their view of themselves.

Parental pessimism also seems to negatively influence children's reactions and life outcomes (Turner, 1982). A negative affect, such as hurt, caused by parental pessimism is associated with unpleasant interpretations of and nervousness about children's everyday lives (Clark & Watson, 1988). It also remains relatively constant in the absence of adverse and stressful life events (Stone & Neale, 1984). Therefore, parental pessimistic messages are not merely one type of hurtful messages encapsulating children's past hurtful experiences. Instead, they are hurtful messages that have the potential to harm both children's current and not-yet-realized future selves.

A Father's Pessimistic Messages. In general, studies of parenting and its effects on child development are less likely to isolate father–child relationships (Jessee & Adamsons, 2018). Because mothers do play a more active, and arguably more formative, role in early youth development, which is the focus of most research, mother–child relationships tend to occupy center stage in family studies. When fathers appear at all, it is generally under the undifferentiated rubric of "parent–child" relationships. During emerging adulthood, building confidence as well as emotional security looms large (Roberts & Bengtson, 1993). Mothers have been found to communicate with their children more openly than do fathers (Rosnati et al., 2007). However, fathers may still be

perceived as present in the absence of open communication. The contributions of the two parents may be distinct and, as a result, patterns of mother–child and father–child attachment may be qualitatively different (Fernandes et al., 2020).

Parents contribute to their child's emotional security, mainly through the methods of exploration and regulation (Bretherton, 2010; Grossmann et al., 2002; Lamb, 2010; Paquette, 2004; Paquette & Bigras, 2010). For example, young children may gain a sense of security, guidance, and support while playing a game with their father. As they mature into adulthood, those experiences play critical roles in developing the skills of cooperation and problem-solving (Grossmann et al., 2005).

Paquette and Bigras (2010) found that fathers are more likely to encourage a child to explore and take risks in new social situations. In contrast, mothers play important roles in helping children gain a sense of security by providing emotional support (e.g., caring and removing their doubts or fears) when the child is distressed, in pain, or afraid (Grossmann et al., 2002). For those reasons, researchers tend to argue that maternal and paternal influences on a child should be examined independently (McKinney & Renk, 2008). As these examples suggest, however, the emerging literature on fathers and their children still focuses primarily on younger children, in early and middle childhood, and to a lesser extent on adolescence (Bronte-Tinkew et al., 2006). There are a few important exceptions that examine paternal roles during emerging adulthood (Amato, 1994; Aquilino, 1997; Schwartz & Finley, 2006). However, the majority of these studies have been conducted using small, select, white, and middle-class samples. Studies using nationally representative data that examine the processes of paternal involvement during emerging adulthood are sparse.

As a result, progress in understanding how fathers are involved and the implications of their involvement for development during this phase of life has lagged behind other models of parenting (Erkut et al., 2005; Lamb, 1997). Based on the available research, it is possible that young-adult children harbor higher expectations of emotional support and loyalty from their mothers than they do from their fathers. As a result, their perceptions of message hurtfulness could be higher for mothers. Alternatively, fathers may be less capable than mothers of expressing criticism of their children in ways that the receivers deem supportive. As a result, young adult children's perceptions of the intensity of message hurtfulness might be higher in the case of fathers.

Alternative Theories Considered

Other theories were considered for incorporation into the dissertation but were ultimately considered to be unnecessary for its theoretical framework. For example, self-esteem was considered for inclusion in this study based on the findings of prior work (Ainsworth & Bowlby, 1991; Feeney, 2005). These studies, while valuable, tend to treat self-esteem as a global variable independent of the specific contexts and relationships in which hurtful communication typically arises. In fact, receivers have patterned reactions to specific senders based on their relationships with them as children, siblings, or romantic partners.

Self-Esteem

The inherently subjective nature of appraisal suggests that there is something about the receivers' own psychological makeup, or perhaps their experience with the sender, that determines how they make any cognitive appraisal and their emotional and behavioral responses. One obvious avenue of inquiry is the problem of receiver self-

esteem. Self-esteem is possibly the most widely studied personality concept in psychology (Judge et al., 2002) and is known for its "super status" among psychological constructs (Kling et al., 1999, p. 472). For example, Vangelisti et al. (2005) found that individuals with high self-esteem tend to interpret their experience of hurt feelings more positively than do individuals with low self-esteem. Similarly, Murray et al. (2002) found a negative association between self-esteem and the degree of hurt feelings. The importance of the relationship between emotions and behavior with appraisal, particularly cognitive appraisal, is critical for understanding the importance of this research as focused on self-focused characteristics. Therefore, while message receipt is a social experience, appraisal involves personal characteristics that must be examined through empirical study. Self-esteem as a global concept fails to grasp the complexity of the receiver's response to perceived hurtful messaging, especially in parent–child settings with long developmental histories and patterns of interaction. Studying attachment styles and attribution patterns can approximate the relationship-specific contexts in which messaging hurt appraisals occur, but they tend to portray message receivers as enmeshed in these relationships without a strong sense of their own autonomy.

Attachment Theory

Over time, patterned relationships between a message receiver and a sender may give rise to specific attachment styles that shape the context in which messaging may be perceived as beneficial or hurtful (Ainsworth & Bowlby, 1991). For example, Feeney (2005) has argued that individuals with anxious-ambivalent attachment styles tend to perceive their partners' ambiguous behaviors as hurtful or hostile and respond to them in a way that further harms their relationships (e.g., retaliation or dependent behaviors). In

contrast, individuals with avoidant attachment styles tend to be relatively insensitive to ambiguous or mild rejection cues and respond to hurt by retreating further from intimacy and connection. While previous research has examined the appraisal of message hurtfulness in partner-based relationships such as romantic partnerships, no research has yet investigated the relationship between parents and children. One way in which the present research adds value is by examining how children appraise messages from parents.

Attribution Theory

Attribution theory is another source of insight into how receivers tend to frame their interactions with message senders—and how they experience hurt (Weiner, 1985). For example, Vangelisti and Young (2000) found that individuals who perceived messages as intentionally hurtful reported stronger hurt feelings than did those who viewed the messages as unintentional. These receiver attributions and emotional responses may be deeply rooted in the experience of message receivers based on their earlier patterns of interactions or "schemas" (Markus, 1977). These schemas enable individuals to draw inferences and attribute meaning to stimuli that are stored in their long-term memory and condition their responses to new events (Cantor, 1990). A disapproving or humiliating remark from a partner, co-worker, or parent can trigger an emotional response drawn from a storehouse first built-in childhood or adolescence, leading to feelings of hurt in the present.

Summary

This thesis makes a significant contribution to appraisal theory by identifying unique patterns of perceived messaging hurt (PMH) that may emerge in a parent–young

adult child setting. In this developmental phase, young adults are developing a fragile sense of independence and autonomy and face challenges to their identity and self-concept, as well as opportunities for continued growth, especially their sense of future self. Confronting this unfamiliar terrain, young adults naturally turn to their parents for support, insight, and guidance in one or more domains, including work, finances, education, and marriage. Having grown to maturity, young adults also harbor expectations that parental influence will be positive, or if critical, generally well-intentioned, and respectful. In this setting, young adults may be especially anxious to receive positive male mentoring support and guidance from their fathers. Young adults may harbor genuine fears of failure and disappointment as they take new risks to provide for themselves and to shed a lingering sense of dependency from their youth and adolescence. Given the perceived stakes, paternal messaging deemed hurtful or unsupportive is likely to play an unusually disconfirming and debilitating role during this critical transition period.

Limitations of Literature

The literature on PMH reveals several weaknesses, some of which have already been alluded to. The most obvious is the absence of research on the parent–emerging adult relationships. The bulk of the literature on parenting in families focuses on parent–child and parent–adolescent relationships. In these relationships, minor youth are in highly dependent, indeed subordinate, relationships with their parents, which renders hurt a potentially more ambiguous and indeterminate concept. Children at earlier stages have limited self-concepts and limited experiences interacting with their parents. They may not be able to understand, let alone verbalize, their feelings. Emerging adults and young

adults, by contrast, are developing real autonomy and ideally enjoy a more equal footing with their parents. While still dependent in some areas, they may be less likely to deem a message they receive as intentionally hurtful than with the harsh verbal discipline or correction they may have experienced during adolescence. When they do deem a message intentionally hurtful, they may be more likely to seek distancing and even relationship exit as a secondary appraisal option. On the other hand, there is an unfortunate tendency in the PMH literature to assume that all messaging deemed harmful by the receiver must invariably have negative consequences. Some receivers in some circumstances may be able to transform their hurt to achieve positive outcomes for themselves and to improve the quality of their partnership relationships (Sun, 2017). This possibility was glimpsed by Folkman et al. (1986), whose work is not reflective of the latent negativity bias in the literature overall. Most appraisal studies also do not address PMH in the context of parent–child relationships, let alone parent–emerging adult relationships. It could be that emerging adults with distinct self-concepts and relationship histories with their parents enjoy a wider range of options or coping strategies in their PMH responses, both emotionally and behaviorally, in contrast to minor youth, especially children.

A related issue is whether some types of family structures are more likely than others to feature hurtful messaging. Most research has shown that single-parent homes are more likely overall to feature intra-family conflicts, including parent–child and especially parent–adolescent conflicts (Laursen, 2005). However, some research suggests just the opposite effect: a closer bonding and sense of mutual interdependence between parent and child. Some research also suggests that single-parent homes may engender an

earlier transition to adulthood among children; this is especially true of single-father homes (Coles, 2015). Highly conflictive homes may involve higher degrees of verbal messaging that adolescents—or even their parents—deem hurtful, but these homes may also engender a degree of resilience not found in more stable homes that tend to prolong the childhood phase of development. Family structure is also a cultural issue. More affluent, non-Hispanic White families tend to conform more closely to the nuclear model while families of color may include extended family as well as "fictive" kin comprising close non-blood-related adults (Stack, 1975). This expanded parenting realm offers emerging adults numerous sources of additional guidance and support that may parallel, reinforce, or contradict the influences and hurtful messaging they receive from their primary parents (Byng-Hall, 2008). In the current PMH literature, studies involving cross-cultural comparisons are absent. Recent ethnographic research among families of Black and Latino early adults suggests that these families are relatively more involved and invested in ensuring successful career and life outcomes for their children and that emotional nurturing and positive messaging, rather than education or career advice, forms the core of that support (Ebaugh & Curry, 2000; Riley, 2021). If so, young adults of color may be less susceptible to the influence of hurtful parental messages than their non-Hispanic White counterparts.

Chapter 3: Methods

Participants

Participants were 577 degree-seeking undergraduates. Their average age was 20.10 years (SD = 1.81, range = 18–32 years), and they included 157 freshmen (27.2%), 136 sophomores (23.6%), 121 juniors (21.0%), 145 seniors (25.1%), and 18 "other" (3.1%). Females (*n* = 409, 70.9%) represented a larger proportion of the sample than males (*n* =168, 29%). Participants also reported their current gender identity, which is not necessarily the same as their sex on their birth certificate. They identified themselves as female (*n* = 395, 68.5%), male (*n* = 162, 28.1%), trans male/trans man (*n* = 6, 1.0%), genderqueer/gender non-conforming (*n* = 7, 1.2%), and trans female/trans woman (*n* = 2, .3%). As for the ethnic/racial composition of the study, participants could choose more than one racial or ethnic identity; 93.1% of respondents reported only one racial or ethnic identity, and 6.9 % reported a multiracial identity. The majority of respondents identified as Caucasian (88.7%), while other categories had far fewer respondents, including American Indian (1.2%), Asian American (6.2%), Asian/Pacific Islander (3.3%), African American (2.4%), Hispanic/Latino (3.6%), and other racial or ethnic categories (1.9%).

Procedure

Participants were recruited from one large, public university in the Midwest. They were recruited in three different ways. First, I requested public data from the university where this study was conducted in fall 2017, except for those who had suppressed their directory information. I disseminated survey invitation e-mails along with the survey link to potential participants, and 484 participants completed the online survey. They received $5 online gift cards upon their completion of the survey. Second, I disseminated printed

posters on campus, which contained information about the study, rewards, and my contact information (e.g., university e-mail address). Once potential participants contacted me via their university e-mail and expressed their willingness to participate in the survey, I sent them a private survey link to complete. Sixty-nine participants completed the survey and received $10 online gift cards. Finally, I recruited 24 participants from one introductory communication course upon their instructor's approval. They received extra credit from their instructor.

This study used a cross-sectional survey based on self-report data and employed a 2 (priming self: best vs. worst possible self) x 4 (priming domains: general, subjective well-being, relationships, career) x 3 (message domains: subjective well-being, relationships, career) factorial design. The survey assessed PMH, in college students, associated with a parental pessimistic comment on their future. The survey included writing exercises to prime participants with their imagined best or worst possible selves (four domains of the best possible self and four domains of the worst possible self). Followed by the priming exercises, the survey included hypothetical situations involving a parent–child talk about the child's future (3 domains of a parent's message) and questions about their PMH in the hypothetical situation. The next part included a manipulation check, measuring the extent to which the hypothetical parental message is typical of their own parents' messages in their daily lives (1 item) and the extent to which the hypothetical situation is realistic (1 item). Then, participants were required to complete a randomly assigned writing exercise for priming, which is a 2 (priming self: best vs. worst possible self) x 4 (priming domains: general, subjective well-being, relationships, career) x 3 (parental message domains: subjective well-being, relationships,

career) factorial design. After the priming exercise, participants read a randomly assigned hypothetical situation (one of the three situations involved in emerging adults' future subjective well-being, relationships, or career). In the hypothetical situation, an emerging adult received a father's pessimistic comment on his/her future. The last part of the survey included demographic questions.

Before starting the survey, participants were informed that the decision to participate was voluntary and that they could withdraw at any time without penalty. Because the survey included a hypothetical parent–child interaction that might cause psychological discomfort, participants were advised not to continue if they experienced any personal distress during participation. In case participants needed a professional's help, the survey included information about free walk-in student counseling services on campus. Participants' demographic information was coded and kept confidential. Finally, they were asked to provide electronic consent to participate, and those who consented were directed to the online (Qualtrics) survey. The median time to complete the survey was 23.62 minutes. All study procedures, including the recruitment of participants, the survey design and instruments, and the analysis plans, were reviewed and approved by the university Institutional Review Board (IRB).

Manipulation Check

Realism

Two statements were used to measure whether each hypothetical situation was perceived to be relatively realistic by participants. The two items were "the situation is realistic" and "I could imagine other people to be in this situation." Participants rated the items with a 5-point Likert-type response (1 = *Strongly Disagree*, 2 = *Somewhat*

Disagree, 3 = *Neither Agree nor Disagree*, 4 = *Somewhat Agree*, 5 = *Strongly Agree*). Cronbach's alpha for the two-item was .47 (M = 3.42, SD = .99). Although the two statements positively correlated (α = .34** p < .001, 2-tailed), mean ratings of the two statements were notably different: "this situation is realistic" (M = 2.67, SD = 1.45) and "I could imagine other people to be in this situation" (M = 4.16, SD = .93). The results indicate that participants perceived the hypothetical situations to be unlikely to happen in their own relationships with their parents but likely to happen in others' relationships with their parents. This discrepancy in perceptions of the same hypothetical situations is understandable, considering that hurt-evoking situations are highly individualized and relationship-specific. If participants perceived the hypothetical hurt-evoking situation as "not typical" in their real life, then it would be difficult for them to see the hypothetical situations as "realistic" even if they saw the same hypothetical situation as "realistic" and highly plausible in other parent–child relationships.

Dependent Variable

Perceived Parental Message Hurtfulness: Participants rated the degrees of perceived parental message hurtfulness right after reading the hypothetical situation in which an emerging adult child received a father's pessimistic comment on his/her future. One item asked, "in this hypothetical situation, how hurtful do you think your father's (parent's) comment is?" with 5-point Likert-type responses (1 = *Not at all*, 2 = *A little bit*, 3 = *Somewhat*, 4 =*Very*, 5 = *Extremely*).

Independent Variables

There was one independent variable for each possible combination of factors for the 2 x 4 x3 factorial design. Therefore, there were 24 independent variables for every

combination of priming self (best vs. worst possible self), priming domains (general, subjective well-being, relationships, career), and message domains (subjective well-being, relationships, career). Each variable was coded 1 if it represented the focal combination of factors and 0 otherwise.

Data Analysis Plan

The data analysis plan began with descriptive statistics and parametric tests of the effects of the different "treatment" combinations of the 2 x 4 x 3 factorial design. The dependent variable for all tests, parametric and non-parametric, was PMH. Next, the assumptions of normality and homogeneity of variances were tested for PMH. Because these tests supported the null hypothesis at the .000 level of statistical significance, the tests of the effects of the different treatments on PMH were rerun, this time using the Kruskal–Wallis method instead of ANOVA. However, before this, an attempt to transform PMH into a normal distribution had been made. Because more than 90% of the values for PMH were either 4 or 5 (on a Likert-type scale ranging from 1 to 5), the transformation was not successful. Accordingly, it was not possible to test the 2 x 4 x 3 factorial design. Instead, Kruskal–Wallis (which allows only two-way analyses of variance for non-normally distributed variables) was used to test for the relative effects of the treatments within each factor only, the outcome of which was nine tests rather than 24. The specific data analysis steps were as follow:

1. Descriptives – N, mean, SD, range for the treatment dummies and PMH.
2. 2 x 4 x 3 analyses: ANOVA for 24 groups (across the Self, Domain, and Message treatments), then OLS for all 24 groups plus gender identity, age, and race.

3. Self ANOVA: Best self/worst self ANOVA, then OLS for the best/worst dummy plus gender identity, age, race.
4. Domain ANOVA, then OLS for the general (1/0), relationship (1/0), career (1/0), well-being (1/0) dummy plus gender identity, age, and race.
5. Message ANOVA, then OLS for the relationship (1/0), career (1/0), well-being (1/0) dummy plus gender identity, age, race.
6. Assumptions tests for PMH for normality and homogeneity of variances.
7. Self Kruskal–Wallis test: 1 test for best self/worst (1/0).
8. Domain Kruskal–Wallis tests: 1 test for general (1/0), 1 test for relationship (1/0), 1 test for career (1/0), and 1 test for well-being (1/0).
9. Message Kruskal–Wallis tests: 1 test for relationship (1/0), 1 test for career (1/0), and 1 test for well-being (1/0).

Chapter 4: Results

Chapter 4 details the results of the study. The statistical results are divided into several sections. The first section involves the study's profile characteristics and descriptive statistics. Profile characteristics support an understanding of the sample, while descriptive statistics include data describing data of the study. The chapter also includes the results of two hypothesis tests: ANOVA and multiple regression. The chapter ends by discussing tests for statistical assumptions and the use of alternative tests.

Tests for Statistical Assumptions

The statistical data analysis procedures for this research included a design where both three-way ANOVA and multiple regression should be used. Both inferential statistics methods require the testing of statistical assumptions which must be met to determine whether the use of parametric statistics is supported, or whether non-parametric statistics are more appropriate. The statistical assumptions for three-way ANOVA and multiple regression were both included in this study to determine whether the assumptions were supported.

Testing the Assumptions of Three-Way ANOVA

There were six statistical assumptions tested by the three-way ANOVA. The assumptions included 1) measurement of the dependent variable on a continuous level, 2) each independent variable having two or more categorical groupings, 3) independence of observations, 4) an approximately normal distribution for each combination of groups, 5) no significant outliers, and 6) homogeneity of variance for each combination of groups. The first three assumptions are evident: the dependent variable is treated as a continuous variable, the independent variables are categorical, and there is independence in

observations. The assumptions test continued with the test of the distribution of data. The first step involved examining the distribution of the dependent variable, PMH, among each of the three factors. The Shapiro–Wilk test was selected to test normality. The findings for each test indicated that the data was not normally distributed (Table 13). Thus, the assumption of normality was determined to be violated.

Table 1

A Table of Shapiro–Wilk Tests of Normality

		S-W	*df*	*p*
Primed for Best Possible Self or Worst Possible Self	*Best Possible Self*	.80	287	< .05
	Worst Possible Self	.77	290	< .05
Priming Domain for Hypothetical Situation	*General*	.80	122	< .05
	Wellbeing	.73	143	< .05
	Relationship	.79	156	< .05
	Career	.79	156	< .05
Hypothetical Situation Viewed by Participant	*Wellbeing*	.79	192	< .05
	Relationship	.80	196	< .05
	Career	.75	189	< .05

The findings in Table 13 indicate that normality was violated for each category under each factor. Because there is no non-parametric substitute for a three-way ANOVA, alternative methods of addressing the problem of normality were considered. The first required the transformation of data for the dependent variable of PMH. A two-step method of transformation was applied to the data (Templeton, 2011). The first step involved ranking cases using fractional ranking. The second step involved computing a new variable from the transformed data for PMH using the inverse distribution function,

where the fractional ranked data, mean, and standard deviation were used to create new values. Table 14 includes the results of determining normality within the new values for PMH. The results again to indicate a non-normal distribution of the data.

Table 2

A Table of Shapiro–Wilk Tests of Normality Using Transformed Data

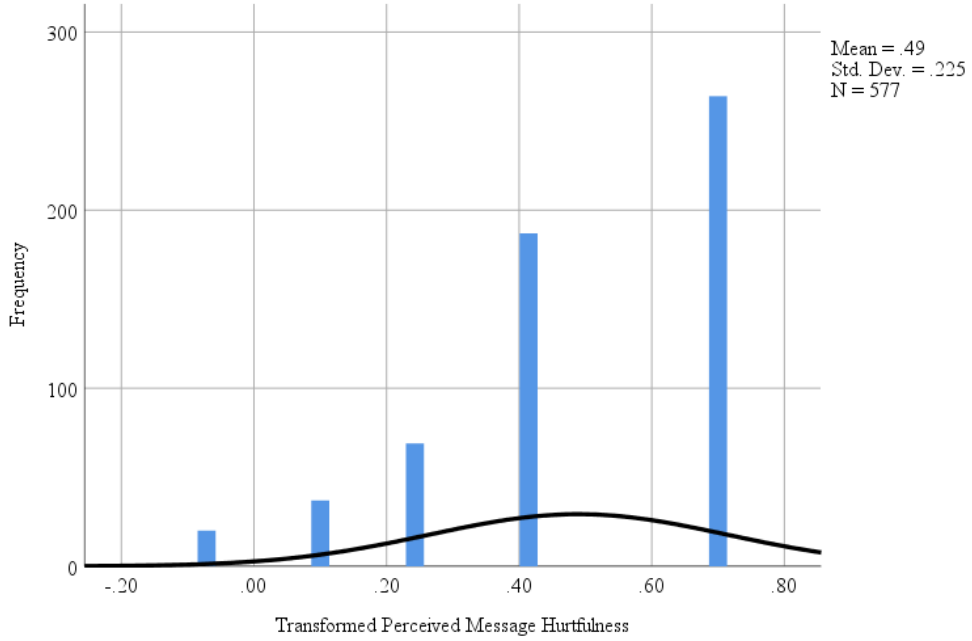
		S-W	*df*	*p*
Primed for Best Possible Self or Worst Possible Self	*Best Possible Self*	.82	287	< .05
	Worst Possible Self	.81	290	< .05
Priming Domain for Hypothetical Situation	*General*	.82	122	< .05
	Wellbeing	.77	143	< .05
	Relationship	.83	156	< .05
	Career	.82	156	< .05
Hypothetical Situation Viewed by Participant	*Wellbeing*	.82	192	< .05
	Relationship	.83	196	< .05
	Career	.78	189	< .05

The results displayed in Table 14 show that the distribution of the transformed data remined non-normal but with a definite change in the shape of the data distribution. The histogram for the data in Figure 1 illustrates the original distribution of the data. Figure 2 is the histogram of the data following the use of the transformation function.

Hence, it appeared possible that the data could be transformed in a way that would result in a normal distribution of the data.

Figure 1

A Histogram for the Perceived Message Hurtfulness for the Entire Sample after Data Transformation



The data was transformed once again using a base-10 logarithm. The results showed that the data was transformed in a way that would result in finding a normal distribution of the data. Table 15 includes the findings of the Shapiro–Wilk test for normality. The findings indicate that there is still a non-normal distribution of the data. Thus, as the data could not be transformed to become normal, alternative plans became necessary for data analysis, which involved the use of the Kruskal–Wallis test in lieu of ANOVA.

Table 3

Table of Shapiro–Wilk Tests of Normality Using Logged Data.

		S-W	*df*	*p*
Primed for Best Possible Self or Worst Possible Self	*Best Possible Self*	.71	287	< .05
	Worst Possible Self	.66	290	< .05
Priming Domain for Hypothetical Situation	*General*	.73	122	< .05
	Wellbeing	.60	143	< .05
	Relationship	.67	156	< .05
	Career	.71	156	< .05
Hypothetical Situation Viewed by Participant	*Wellbeing*	.69	192	< .05
	Relationship	.71	196	< .05
	Career	.65	189	< .05

Testing the Assumptions of Multiple Regression

As with ANOVA, there are several statistical assumptions associated with multiple regression. These include 1) the dependent variable being a continuous variable, 2) there being multiple independent variables that are either continuous or categorial where the variable is dichotomous, 3) independence of observations, 4) a normal distribution of the data, 5) a linear relationship between the dependent variable and the independent variables, 6) the presence of homoscedasticity, 7) a lack of multicollinearity, and 8) a lack of outliers. The first, second, and third assumptions are evident in the nature of the dependent and independent variables. The previous section detailing the lack of

normality in the dataset is evidence that a critical assumption of multiple regression was violated. Thus, an alternative plan was required.

Profile Characteristics and Descriptive Statistics

The descriptive statistics and tests of statistical assumptions were completed using responses from survey participants (n = 577). The section begins with a description of the profile of participants in the study. Responses from the sample were used to understand the profile characteristics of participants based on a series of demographic characteristics. Frequencies of demographics were used to establish percentages of the counts for characteristics of participants to support understanding the context of the research vis-à-vis survey respondents. The chapter continues with the descriptive statistics for participants. The descriptive statistics include mean as a measure of central tendency, standard deviation as a measure of variance, and skewness and kurtosis to characterize the posterior distribution of data.

Profile Characteristics

The frequency table in Table 1 shows the frequencies of profile characteristics for participants in the sample of the study. Age was mainly distributed around the age for traditional undergraduate college students, as 95.4% of participants were within the age range of 18–23. Only 4.6% were in the age range of non-traditional college students. The close proximity of participants in age led to the conclusion that age should not be considered in the model used in this study because most participants were relatively close in age. The biological sex of participants revealed a majority of female participants. There was an additional item for gender identity; however, no participants identified as a gender other than the gender they were assigned at birth or as non-binary. The biological

sex of participants was considered for inclusion in the study. Other profile characteristics were also included in the survey to develop a greater understanding of the sample. The distribution of the additional profile characteristics included responses selected with enough frequency that the decision was made to exclude them from the study. Specifically, the frequency of U.S. citizens was 95.8% for nationality, the frequency for families with one father and one mother was 93.1% for family type, and the frequency for White/Caucasian participants was 88.7% for ethnicity. Thus, only biological sex was included as a profile characteristic in the multi-factor model.

Table 4

A Table of the Frequencies for Profile Characteristics of Survey Participants

Profile Characteristic	Frequency
Age	18 (19.1%); 19 (23.3%); 20 (21.3%); 21 (19.2%); 22 (8.7%); 23 (3.6%); 24 (2.1%); 25 (1.7%); 26 (0.3%); 29 (0.3%); 32 (0.2%).
Biosex	Male (29.1%); Female (70.9%).
Nationality (U.S. or non-U.S. Citizen)	U.S. Citizen (95.8%); Non-U.S. Citizen (4.2%).
Family Type	One Father and One Mother (93.1%); One Mother and No Father (4.7%); One Father and No Mother (1.7%); Two Mothers and No Fathers (0.5%); Two Fathers and No Mother (0.0%); Other (0.0%).
Ethnicity	White/Caucasian (88.7%); Asian American (6.2%); Hispanic/Latino(a) (3.6%); Asian/Pacific Islander (3.3%); Black/African American (2.4%); American Indian/Native American (1.2%); Other (1.9%).

Descriptive Statistics

Table 2 illustrates the distribution of survey participants across categories for each of the factors included in the study. The table shows the distribution of participants across the categories to have a small amount of disparity. The difference in variance percentage for the factor of "primed for best possible self or worst possible self" was 0.6%. The difference between the least-frequent category of priming domain for hypothetical situations, general, and the most frequent categories (relationship and career) was 5.9%. The difference between the most frequent hypothetical situation viewed by a participant and the least frequent hypothetical situation viewed by a participant was 1.2%. These frequency-based descriptive statistics indicate only a small disparity between categories within the factors used in this study.

Table 5

The Percentage of Participants Assigned to Categories for Priming, Priming Domain, and Hypothetical Situations

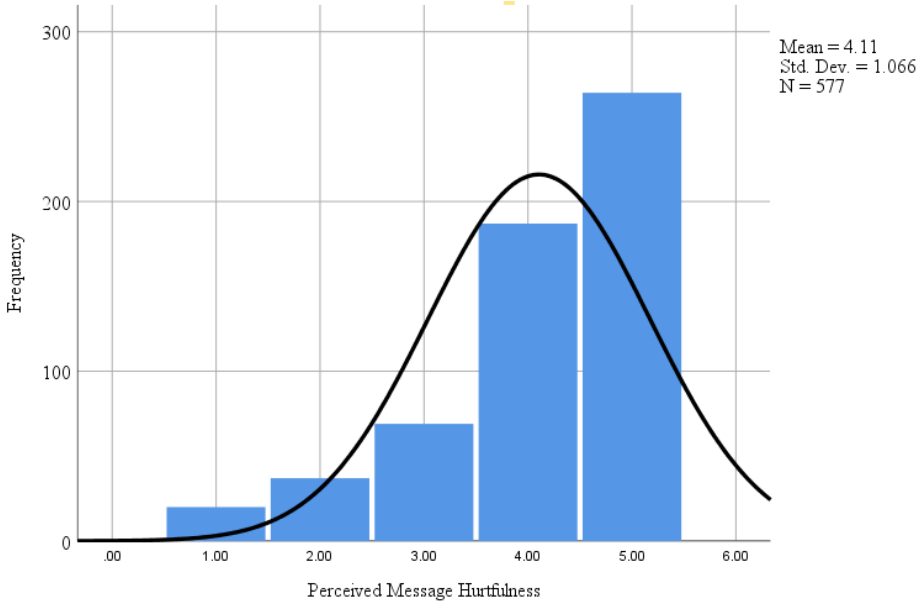
Factor	Category	Percent
Primed for Best Possible Self or Worst Possible Self	*Best Possible Self*	49.7
	Worst Possible Self	50.3
	Total	100.0
Priming Domain for Hypothetical Situation	*General*	21.1
	Wellbeing	24.8
	Relationship	27.0
	Career	27.0
	Total	100.0
Hypothetical Situation Viewed by Participant	*Wellbeing*	33.3
	Relationship	34.0
	Career	32.8
	Total	100.0

A histogram was created to illustrate the distribution of response frequencies for PMH. Unlike the independent variables described in Table 2, which were categorical, the dependent variable of PMH, is an ordinal variable that was treated as a continuous variable. Prior peer-reviewed scholarly literature on the topic of scales and measurements

in quantitative studies noted that while Likert-style scales are ordinal, researchers confidently treat the data in the same way that continuous data is treated. The histogram illustrates the distribution of responses, and it indicates that responses descended in frequency from five to one, with a skew to the left evident both in the order of frequency and in the raw frequency. Thus, the histogram shows that the distribution of data shall be non-normal, or at least, that posterior distribution of the data could indicate an unacceptable level of skewness or kurtosis. The issue is described further in subsequent paragraphs.

Figure 2

A Histogram for the Perceived Message Hurtfulness for the Entire Sample



Note. Skewness = -1.22; S.E. = .10. Kurtosis = .87; S.E. = .20.

Table 3 includes descriptive statistics for the priming, priming domain, and hypothetical situation factors included in the survey. The descriptive statistics included mean, standard deviation, skewness, and kurtosis. The distance between the means for the categories and the total were small, as was the range in mean between the categories. For

the factor "primed for best possible self or worst possible self," the difference in mean scores was .04. The difference was .20 between wellbeing, which was the highest priming domain for the hypothetical situation, and relationship, which was the lowest priming domain for the hypothetical situation. The difference in hypothetical situations viewed by participants was .24, with relationship being lowest and career being highest. Therefore, the mean differences were small. The descriptive statistics also detail the posterior distribution of the data in the form of skewness and kurtosis. George and Mallery (2010) identified the threshold for acceptable asymmetry and kurtosis as +/-3. The data included in Table 3 includes support for a lack of asymmetry in the distribution of the data. However, further examination shall include testing the normality of the data and interpretation of its distribution.

Table 6

A Table of Perceived Message Hurtfulness Descriptive Statistics for Participants Assigned to Categories for Priming, Priming Domain, and Hypothetical Situations

	Category	*Mean*	*S.D.*	*Skewness*	*Kurtosis*
Primed for Best Possible Self or Worst Possible Self	*Best Possible Self*	4.12	1.01	-1.11	.68
	Worst Possible Self	4.08	1.12	-1.29	.92
	Total	4.11	1.06	-1.22	.87
Priming Domain for Hypothetical Situation	*General*	4.07	1.05	-1.01	.16
	Wellbeing	4.24	1.02	-1.59	2.34
	Relationship	4.04	1.09	-1.23	1.08

	Career	4.07	1.09	-1.11	.37
	Total	4.11	1.06	-1.22	.87
Hypothetical Situation Viewed by Participant	*Wellbeing*	4.14	.96	-1.20	1.24
	Relationship	3.97	1.18	-1.04	.12
	Career	4.21	1.03	-1.41	1.52
	Total	4.11	1.06	-1.22	.87

Note. Descriptive statistics for Perceived Message Hurtfulness.

Further examination of the descriptive statistics for variables in the study uncovered differences between male and female participant scores for PMH. Female participants ($M = 4.22$, $SD = 1.01$) were found to have higher PMH than male participants ($M = 3.83$, $SD = 1.14$), but the PMH scores for men had greater standard deviation. These findings illustrate a higher central tendency of sensitivity in terms of perceptions of message hurtfulness for females, but that males have greater variance in their perceptions of message hurtfulness. The coefficient of variation was .24 for females and .30 for males was, further indicating greater dispersion of perceptions of message hurtfulness among men than women. The descriptive finding contributed further support to interest in including the factor in the model used to test the hypothesis of this study.

Hypothesis Testing and Tests of Statistical Assumptions

This section of Chapter 4 includes the tests of hypotheses and the tests of statistical assumptions underlying the hypotheses. The section begins with a test of hypotheses using a three-way ANOVA and multiple regression. These models were used to examine the influence of priming for best and worst possible self, the priming domain

for the hypothetical situation, and the hypothetical situation viewed by the respondent as independent variables predicting perceptions of message hurtfulness. Tests for statistical assumptions were then completed for the three-way ANOVA and multiple regression. In areas where the statistical assumptions were violated, either non-parametric tests were used or the data was transformed.

Hypothesis Testing

Hypothesis testing for this study involved examining the data using both ANOVA and multiple regression models for each of the three factors. However, while the ANOVA model was designed as a three-way ANOVA model, individual variables were used for each category of the factors in the ANOVA model, with binary dummy variables used in the multiple regression model. Following the three-way ANOVA and multiple regression model encompassing variables covering all categories of all factors, three additional ANOVA and multiple regression models were designed to test for the individual factors and the biological sex of participants. The binary dummy variables were used in multiple regression models examining the individual factors. This section includes a discussion of effect sizes and coefficients of determination.

Testing for Each Category

The first test examined an ANOVA model including the three categories priming for best and worst possible self, priming domains for hypothetical situations, and hypothetical situations viewed by participant (Table 4). The model also included the biological sex and age of participants. The corrected model was not statistically significant (partial $\eta^2 = .43$, $p = .15$). However, there were some elements within the model that were notable. The biological sex of participants was statistically significant

(partial $\eta^2 = .03$, $p < .05$), as was biosex x priming domains x message domains (partial $\eta^2 = .05$, $p < .05$), priming domains x priming best worst x message domains (partial $\eta^2 = .04$, $p < .05$), and biosex x age x priming best worst x message domains (partial $\eta^2 = .03$, $p < .05$). These findings were evidence that biological may be an influential element in the subsequent ANOVA models in this study.

Table 7

An ANOVA Model Including Biosex of Participant, Priming for Best and Worst Possible Self, Priming Domains for Hypothetical Situations, and Hypothetical Situations Viewed by Participant

Source	*F*	*p*	Partial η^2
Corrected Model	1.13	.15	.43
Intercept	2113.17	< .05	.86
Biosex	11.47	< .05	.03
Age	1.17	.31	.03
PrimingBestWorst	.19	.66	.00
PrimingDomains	.62	.60	.01
MessageDomains	3.46	< .05	.02
Biosex x Age	1.13	.34	.02
Biosex x PrimingBestWorst	.05	.82	.00
Biosex x PrimingDomains	1.59	.19	.01
Biosex x MessageDomains	1.12	.33	.01
Age x PrimingBestWorst	.42	.89	.01

Age x PrimingDomains	.85	.64	.04
Age x MessageDomains	.62	.85	.02
PrimingBestWorst x PrimingDomains	.71	.55	.01
PrimingBestWorst x MessageDomains	.08	.92	.00
PrimingDomains x MessageDomains	1.75	.11	.03
Biosex x Age x PrimingBestWorst	.52	.67	.00
Biosex x Age x PrimingDomains	.62	.82	.02
Biosex x Age x MessageDomains	.29	.96	.01
Biosex x PrimingBestWorst x PrimingDomains	.67	.57	.01
Biosex x PrimingBestWorst x MessageDomains	.45	.64	.00
Biosex x PrimingDomains x MessageDomains	3.05	< .05	.05
Age x PrimingBestWorst x PrimingDomains	.75	.70	.03
Age x PrimingBestWorst x MessageDomains	.47	.88	.01
Age x PrimingDomains x MessageDomains	1.17	0.27	.08
PrimingBestWorst x PrimingDomains x MessageDomains	2.14	< .05	.04
Biosex x Age x PrimingBestWorst x PrimingDomains	.41	.80	.00
Biosex x Age x PrimingBestWorst x MessageDomains	3.04	< .05	.03
Biosex x Age x PrimingDomains x MessageDomains	.38	.92	.01
Biosex x PrimingBestWorst x PrimingDomains x MessageDomains	.31	.73	.00
Age x PrimingBestWorst x PrimingDomains x MessageDomains	.34	.99	.01

Biosex x Age x PrimingBestWorst x PrimingDomains x MessageDomains	< .05

As a significant interaction was found between the three main factors of this study as predictors of PMH, post-hoc analysis was performed using the Tukey HSD test. The multiple comparisons included the priming domain for hypothetical situations and the hypothetical situation viewed by participant (Table 5). The comparisons did not result in a significant finding when the mean difference of groups was compared. The post-hoc analysis also included examination of homogeneous subsets for the priming domain for hypothetical situations and the hypothetical situation viewed by participants. There was a lack of significance for both homogeneous subsets of the priming domain for hypothetical situations (p = .34) and the hypothetical situation viewed by participants (p = .07).

Table 8

Tukey HSD Post-Hoc Analysis of Priming for "Best and Worst Possible Self," the Priming Domain for the Hypothetical Situation, and the Hypothetical Situation Viewed by the Respondent

Factor	Category	*M Diff*	*SE*	*p*
(I) Priming Domain for Hypothetical Situation				
General	Wellbeing	-.16	.13	.59
	Relationship	.04	.13	.99
	Career	.01	.13	.00

	General	.16	.13	.59
Wellbeing	Relationship	.21	.12	.32
	Career	.17	.12	.47
	General	-.04	.13	.99
Relationship	Wellbeing	-.21	.12	.32
	Career	-.03	.12	.99
	General	-.01	.13	1.00
Career	Wellbeing	-.17	.12	.47
	Relationship	.03	.12	.99
(II) Hypothetical Situation Viewed by Participant				
Wellbeing	Relationship	.17	.11	.26
	Career	-.07	.11	.79
Relationship	Wellbeing	-.17	.11	.26
	Career	-.24	.11	.07
Career	Wellbeing	.07	.11	.79
	Relationship	.24	.11	.07

Testing for Priming for Best and Worst Possible Self

The analysis continued with a multiple regression model including biological sex and dummy variables created for the categories within the factors tested in the ANOVA

model. While the model was found to be significant ($F_{(7,569)} = 3.603$, $p < .05$), further interpretation of its findings are necessary. The model included each dummy variable for the categories of the factors that were included in in the study. However, there were three variables that would not load, as they were excluded from the multiple regression model because of collinearity: the predictors "primed for best possible self," "primed domain was relationship," and "message domain of hypothetical situation was relationship." These predictors each were a category of a factor of the three factors in the ANOVA model. There were only two predictors found to be significant in the model: biological sex ($\beta = .17$, $p = .00$) and the message domain "hypothetical situation was career" ($\beta = .11$, $p = .02$) (Table 6). While $r = .21$ for the model, the adjusted r^2 was .03. Thus, the findings support existence of a significant model. Further analysis is needed for understanding the relationships therein.

Table 9

A Multiple Regression Model Including Biosex of Participant, Binary Dummy Variables for Priming for Best and Worst Possible Self, Priming Domains for Hypothetical Situations, and Hypothetical Situations Viewed by Participant

	Unstd. B	*SE*	*β*	*t*	*p*
(Constant)	3.28	.20		16.69	< .05
Biosex	.39	.10	.17	4.02	< .05
Primed for Worst Possible Self	-.05	.09	-.03	-.60	.55
Primed Domain was General	.05	.13	.02	.37	.71
Primed Domain was Wellbeing	.19	.12	.08	1.54	.13
Primed Domain was Career	-.02	.12	-.01	-.19	.85

Message Domain of Hypothetical Situation was Wellbeing	.17	.11	.07	1.57	.12
Message Domain of Hypothetical Situation was Career	.26	.11	.11	2.37	< .05

An ANOVA model was run to examine the relationship between the factors of biological sex and priming for best and worst possible self as predictors of PMH. The findings in Table 7 support the model as significant (partial $\eta^2 = 0.03$, $p < .05$). However, the single factor that appears as significant in the model is biological sex (partial $\eta^2 = .03$, $p < .05$). The results of the model also included an r^2 of .03 and an adjusted r^2 of .03, with a coefficient of determination of 2.5%. Hence, while the model is significant, the factor of interest, "priming for best or worst possible self," does not contribute toward significance and can only explain 2.5% of variance in the model when paired with biological sex. The model was also examined using multiple regression.

Table 10

An ANOVA Model Including Biosex of Participant and Priming for Best and Worst Possible Self

Source	*F*	*p*	Partial η^2
Corrected Model	5.88	< .05	.03
Intercept	6923.45	< .05	.92
Biosex	16.42	< .05	.03
PrimingBestWorst	1.04	.31	.00

Biosex x PrimingBestWorst	1.46	.23	.00	

Additional examination of the relationship between priming for best and worst possible self and PMH involved the use of a multiple regression model. Like the multiple regression model including all categories as dummy variables, the variable for priming for best possible self was excluded from the model. The multiple regression model in Table 8 only included biological sex and priming for worst possible self. The results included statistical significance of the model ($F_{(2,574)} = 8.09$, $p < .05$). However, the only predictor that was significant was biological sex ($\beta = .17$, $p < .05$). Further analysis of the model also included results indicating that $r = .17$, with adjusted $r^2 = .02$.

Table 11

A Multiple Regression Model Including Biosex of Participant and Binary Dummy Variables for Priming for Best and Worst Possible Self

	Unstd. B	*SE*	*β*	*t*	*p*
(Constant)	3.47	.17		19.89	< .05
Biosex	.39	.10	.17	4.00	< .05
Primed for Worst Possible Self	-.05	.09	-.02	-.56	.57

Testing for Priming Domains for Hypothetical Situations

An ANOVA model was developed for the priming domains for hypothetical situations. The model was found to be significant at $p < .05$ (partial $\eta^2 = .03$). However, like the model for "priming for best and worst possible self," the only factor found to be

significant in the model was biological sex (partial $\eta^2 = .03$, $p < .05$). The ANOVA model had an $r^2 = .04$, with an adjusted $r^2 = .02$, meaning that it could support explanation of 2.3% of variance in PMH (Table 9). Thus, while priming domains and the interaction between priming domains and biological sex were not found to be significant in the model, biological sex was statistically significant, and the overall results of the model were statistically significant.

Table 12

An ANOVA Model Including Biosex of Participant and Priming for Priming Domains for Hypothetical Situations

Source	*F*	*p*	Partial η^2
Corrected Model	2.91	< .05	.03
Intercept	6833.80	< .05	.92
Biosex	15.98	< .05	.03
PrimingDomains	.97	.41	.01
Biosex x PrimingDomains	.46	.71	.00

An accompanying multiple regression model was designed to further examine the relationship between priming domains for hypothetical situations and PMH. Like the multiple regression model including all dummy variables representing the categories of all factors (Table 10), the predictor for which the primed domain was “relationship” was excluded from the model. The multiple regression model also included biological sex. The model was found to be statistically significant at $p = .00$ ($F_{(4,572)} = 4.75$), but the only

factor within the model determined to hold statistical significance was biological sex (β = .16, p = .00). The multiple regression model had r = .18, adjusted r^2 = .03 and explained 2.5% of variance in PMH.

Table 13

A Multiple Regression Model Including Biosex of Participant and Binary Dummy Variables for Priming Domains for Hypothetical Situations

	Unstd. B	*SE*	*B*	*t*	*p*
(Constant)	3.39	.18		18.38	< .05
Biosex	.38	.10	.16	3.95	< .05
Primed Domain was General	.06	.13	.02	.46	.64
Primed Domain was Wellbeing	.19	.12	.08	1.56	.12
Primed Domain was Career	.01	.12	.00	.04	.97

Testing for Hypothetical Situations Viewed by Participants

The final ANOVA model included the biological sex of participants and the hypothetical situation viewed by participants. The model was found to be significant at p < .05 (partial η^2 = .04). Unlike in the prior ANOVA models, one of the factors involved in the study—the hypothetical situation viewed by the participant—was determined to be statistically significant (partial η^2 = .01, p = .08), along with biological sex (partial η^2 = .03, p < .05). However, when biological sex and the hypothetical situation viewed by the participant were examined as interacting, there was a lack of significance (partial η^2 = .00, p = .57). The model was found to have an r^2 = .04 and an adjusted r^2 = .03, with 2.9%

of variance in PMH explained by the model (Table 11). The relationship between the hypothetical situation viewed by the participant and PMH was examined further using multiple regression.

Table 14

An ANOVA Model Including Biosex of Participant and the Hypothetical Situation Viewed by the Participant

Source	*F*	*p*	Partial η^2
Corrected Model	4.47	< .05	.04
Intercept	6997.22	< .05	.92
Biosex	15.91	< .05	.03
MessageDomains	2.51	.08	.01
Biosex x MessageDomains	.56	.57	.00

The final multiple regression model included biological sex and dummy variables for the situations viewed by a survey participant. The model was statistically significant at $p = .00$ ($F = 7.10$). Like the prior regression models, the model presented in Table 11 had one predicting variable that was excluded from the model. The predicting variable that failed to load in the first regression model is the same one that failed to load in Table 12—the message domain of relationship—because of collinearity. Within the model itself, as in the previous multiple regression models described in this chapter, biological sex was a significant predictor of PMH ($\beta = .16$, $p = .00$). However, unlike the other regression models described in this chapter, an additional predictor was found to be significant. The dummy variable for the message domain of the hypothetical situation being "career" was also significant ($\beta = .11$, $p = .02$). The results also indicated that $r =$

.19, with an adjusted $r^2 = .03$. The model was found to explain 3.1% of variance in PMH responses by participants.

Table 15

A Multiple Regression Model Including Biosex of Participant and Binary Dummy Variables for Hypothetical Situations Viewed by the Participant

	Unstd. B	*SE*	*β*	*t*	*p*
(Constant)	3.31	.18		18.34	< .05
Biosex	.39	.10	.16	4.02	< .05
Message Domain of Hypothetical Situation was Wellbeing	.16	.11	.07	1.46	.15
Message Domain of Hypothetical Situation was Career	.24	.11	.11	2.27	< .05

The hypothesis testing included the use of ANOVA and multiple regression to test the three factors hypothesized to influence PMH individually and within comprehensive models. The findings from the ANOVAs and multiple regressions provided limited support for the three factors as influencers of PMH but robust support for the influence of biological sex on PMH. A critical concern that emerged in each instance of running multiple regression models in this study was the high degree of collinearity, which led to the exclusion of the predicting variables "primed for best possible self," "primed domain of relationship," and "message domain of hypothetical situation was relationship." The shape of the data distribution for the dependent variable of PMH was another concerning characteristic. Thus, tests for statistical assumptions were run to determine whether

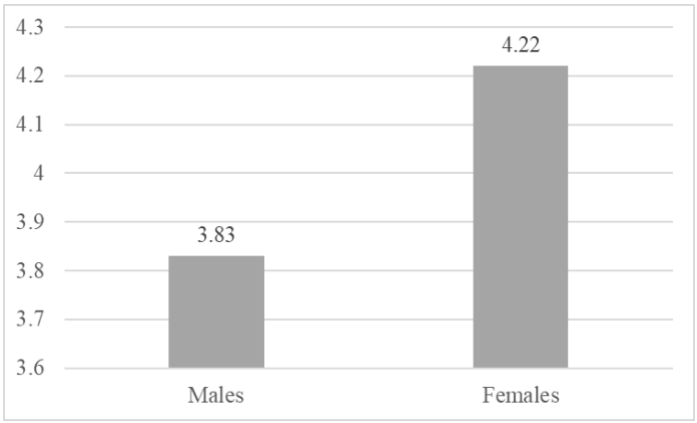
statistical assumptions are supported by the data or whether an alternative test should have been selected.

Alternative Hypothesis Testing

The alternative method of hypothesis testing in the study was the Kruskal–Wallis test, a non-parametric test used when one-way ANOVA is not possible. Three Kruskal–Wallis tests were run, one for each factor. The findings do not support the existence of significant relationships between the independent variables and PMH. The first test was run using the independent variable of "primed for best possible self or worst possible self." The test lacked asymptotic significance ($K–W = .04$, $p = .85$). The second test involved priming for hypothetical situations. The findings indicated a lack of asymptotic significance ($K–W = 4.14$, $p = .25$). The third test involved the hypothetical situation viewed by the participant and also indicated a lack of asymptotic significance ($K–W = 3.92$, $p = .14$). A fourth model was run using biological sex as the independent variable because of the success of biological sex in the ANOVA models described in the previous section. The findings support biological sex as a significant predictor of PMH ($K–W = 17.77$, $p < .05$). Figure 3 illustrates the difference in PMH between male and female participants.

Figure 3

A Bar Graph of Perceived Message Hurtfulness by Biosex.


4.3
4.2
4.1
4
3.9
3.8
3.7
3.6
3.83
4.22
Males
Females

Chapter 5: Discussion

Self-Expectation and Perceived Message Hurtfulness

The Effects of Priming of the Best vs. the Worst Possible Self

The first hypothesis of this study involves the issue of self-expectation and PMH. The descriptive statistics show that when an individual was primed for their best possible self or worst possible self, the mean difference was only .04, with a mean an overall (*SD* = 1.06). When an individual was primed for their best possible self, the mean score was 4.12 (*SD* = 1.01), and when they were primed for their worst possible self, the mean score was 4.08 (*SD* = 1.12). While the descriptive findings showed some difference between priming for best or worst self, with message appraisal leading to greater perceptions of hurt when there was priming for best self, the findings did not reveal a significant effect from priming for best or worst selves ($F = .19$, $p > .05$). This finding was further supported by the coefficients reported in the multiple regression model in Table 6, which show that being primed for the worst possible self insignificantly predicts PMH. Additionally, the Kruskal–Wallis test lacked asymptotic significance ($K–W = .04$, $p = .85$). Therefore, the appraisal of messages regarding an individual's perception of the hurtfulness of the received message is not significantly impacted by their being primed for their best or worst possible self.

The absence of a priming effect on PMH may be because the priming conditions were not sufficient to activate participants' possible selves. Oyserman et al. (2004) have claimed that certain types of possible selves, such as self-enhancing possible selves, can contribute to individuals' positive feelings but have no influence on their behavioral changes. If this is the case, it is plausible that in this experiment, participants' successful

future imagery might have contributed to their positive feelings but remained as mere fantasies of their ideal lives, lacking specific plans and emotional arousal. This may have resulted in a lack of exertion toward the given tasks. On the other hand, participants' undesirable future imagery in this experiment might have provoked unpleasant feelings but remained an improbable scenario, deterring them to engage in the given task.

Demographic Characteristics and Perceived Message Hurtfulness

Closely related to the self are demographic characteristics of individuals. Two demographic characteristics were included in this study: biological sex and age. The findings support biological sex as significantly influencing the appraisal of message hurtfulness at $p < .05$, but the findings do not support age as an influencer of PMH. In addition, biological sex and age together did not significantly influence message hurtfulness perceptions at $p < .05$ (Table 4). These findings are evidence that demographic characteristics can influence PMH, and in this study, biological sex appears to be the most significant participant characteristic influencing PMH.

Biological Sex Differences

Biological sex was included in the multiple regression model predicting PMH. The coefficients for the model included in Table 6 indicate that biological sex has a significant influence on PMH, with females appraising messages as more hurtful than males at $p < .05$ ($\beta = .17$, $t = 4.02$) (Table 6). Biological sex was also included in an ANOVA model that included priming for the best or the worst self. Biological sex was found to have a significant effect on PMH in the model at $p < .05$ ($F = 16.42$). However, the effect became insignificant when biological sex and priming for the best or the worst self were examined in concert as influencers of PMH. Biological sex was further

supported as having a significant impact on PMH, based on the findings of the Kruskal–Wallis test. The impact of biological sex on PMH was found to be significant at $p < .05$. The findings support biological sex as a significant predictor of PMH ($K–W = 17.77$, $p < .05$). Figure 3 illustrates the difference in PMH based on biological sex, where the mean PMH was 3.83 among males and 4.22 among females. The findings contribute robust evidence for a difference in PMH based on the biological sex of participants, such that females are more hurt by such messages than males are. The ANOVA model shown in Table 4 indicates that biological sex has a primary effect ($p < .05$) but also that models including biological sex, priming domains, and message domains, as well as biological sex, age, priming for the best or the worst self, and priming domains were each significant ($p < .05$). Further examination of the role of biological sex in PMH was uncovered in the regression model shown in Table 6. The regression model was found to be significant at $p < .05$, and biological sex was found to be a significant, positive predictor of PMH ($\beta = .17$, $p < .05$). The final test completed in Chapter 4, the Kruskal–Wallis test, produced results that further support biological sex as a significant, positive predictor of PMH ($K–W = 17.77$, $p < .05$), with a bar graph illustrating the size of the difference in PMH between males and females (Figure 3). Overall, the results of this study provide supporting evidence that sex differences exist in interpreting hurtful messages, where PMH is greater for women than for men.

The psychological literature on sex differences in emotional experience and expressivity provide a possible explanation of the findings in this study. Many psychological research studies have supported the idea that women tend to report their emotional experiences more intensely and express them more freely than men (Deng et

al., 2016; Dimberg & Lundquist, 1990; Gard & Kring, 2007; Grossman & Wood, 1993). These sex differences in emotional experience and expressiveness are particularly apparent when women encounter negative emotions (Bradley et al., 2001; Deng et al., 2016; Gard & Kring, 2007; Gove, 1972; Gove & Tudor, 1973; Nolen-Hoeksema, 1987). Hurt is a highly negative, intense emotion strongly related to emotional distress (Leary et al., 1998). This study shows higher self-ratings of PMH in women than in men, and this finding is consistent with McLaren and Solomon's (2008) finding that women reported significantly more intense message hurtfulness than men. A consensus as to the existence of sex differences in emotional responses has not been attained (Deng et al., 2016; Gard & Kring, 2007), mainly due to contradictory research findings (see Codispoti et al., 2008; Dichter et al., 2002). However, speculating that women might actually be more prone to being hurt than men is beyond the scope of study. To the best of my knowledge, no communication research studies, including this study, have measured participant PMH other than by self-ratings. Relying on self-ratings introduces a possible inconsistency between individuals' emotional experience and expressivity. For example, even when men experience strong physiological arousal evoked by hurt-eliciting messages, their assessment might be relatively moderate to make others think they have not been intensely aroused by those messages (e.g., Fernández et al., 2012; Fisher & Dubé, 2005). Therefore, women's higher ratings of PMH in this study may be associated with gender-specific differences in socialization in terms of emotional displays.

Women are known to be emotionally expressive, whereas men conceal or control their emotional displays (Buck et al., 1974). In particular, many studies have found that women report experiencing specific negative emotions, such as sadness and fear, more

intensely than do men and that men report experiencing anger more intensely than do women (e.g., Allen & Haccoun, 1976; Stapley & Haviland, 1989). From the perspective of gender socialization, men's lower ratings of message hurtfulness compared with women may reflect male participants' (un)conscious defensive maneuvers for underreporting the magnitude of PMH. In other words, male participants may have assessed message hurtfulness according to their gender roles and social expectations, providing socially desirable responses to negative emotions that might otherwise make them look weak or less masculine.

Brody and Hall (2008) have stated that sex differences should be expected, considering both different social and interpersonal processes (e.g., culturally prescribed gender roles) and intrapersonal process (e.g., dispositional temperament) in men and women. However, they also observe that generalizing sex differences should fail, emphasizing the importance of explaining sex differences in specific contexts. Future research on the topic of sex differences and PMH will ideally consider multiple factors (e.g., socio-cultural and biological differences) to help researchers explain sex differences in a more comprehensive manner. In addition, using measurements other than self-ratings can strengthen the self-rating results, overcoming the concern about potential inconsistency between emotional experience and expressiveness.

Communicative Factors and Perceived Message Hurtfulness

The Effects of Priming Domain–Message Domain Homogeneity

The second hypothesis involves self-message domain homogeneity and PMH. The findings supported message domains as having a significant effect on PMH at $p < .05$. When 1) biological sex, priming domain, and message domain, or 2) priming for

best or worst, priming domain, and message domain, or 3) biological sex, age, priming for best or worst, and message domain were combined, there was also a significant effect on PMH at $p < .05$. These findings support message domain as having a significant effect, even when combined with factors that did not individually have significant effects on PMH (Table 4). *Post-hoc* analysis was used to examine priming domain and message domain to understand the significance of their interactions for PMH. The findings of the Tukey HSD *post-hoc* test do not support the existence of statistically significant interactions between priming domain and message domain (Table 5). Table 6 includes coefficients for the priming domain and message domain for participants in the study. The findings indicate that when the message domain of the hypothetical situation was career, there was a significant influence on PMH within the regression model at $p < .05$ ($\beta = .11$, $t = 2.37$). The finding was based on a dummy variable where 1 = yes and 2 = no; therefore, when the message domain of the hypothetical situation was career, there was a lower level of PMH. Additionally, the Kruskal–Wallis test did not support the priming domain and message domain as influencing the PMH of college students. The second test involved priming for hypothetical situations. The findings indicate a lack of asymptotic significance ($K–W = 4.14$, $p = .25$). The third test involved the hypothetical situation as viewed by the participant and also indicated a lack of asymptotic significance ($K–W = 3.92$, $p = .14$). Thus, neither priming domain nor message domain was sufficient to affect PMH.

The descriptive statistics for PMH show that participants reported relatively similar but high levels of message hurtfulness (Table 3). This finding could be a clue as to the failure of the manipulation in this experiment.

The hurt-*generating* process (i.e., primary appraisal) may be much simpler than the literature suggests. Unlike the hurt-*regulating* process (i.e., secondary appraisal), primary appraisal may be completed quickly, without awareness, and determine a message's relevance (i.e., whether it is benign, threatening, or irrelevant for my well-being; Lazarus, 1991) and affective valence (i.e., how much pleasure or displeasure I felt in response to a stimulus; Guerrero et al., 1998). Given that hurt is globally described as a highly negative and distressful emotion (Leary & Leder, 2009; Leary et al., 1998; Lemay et al., 2012), with high levels in arousal periods like anger (Tato et al., 2002), individuals may appraise any interpersonal feedback that is not praise (i.e., positive feedback) to be intensely hurtful, as an immediate cognitive-affective reaction to perceived devaluation (Leary & Springer, 2001). Their previous experience of high-intensity hurtfulness may temporarily cancel out the processing of additional information, such as the source of the message or the location of the incident, at the moment when the message is received. Of course, unlike external information like message source or incident location, an individual's primary appraisal of a hurt-eliciting message may be still affected by their intrapersonal characteristics, especially those closely related to their emotional vulnerability, such as rejection sensitivity, psychological conditions such as depression, or dispositional optimism or pessimism. However, external information may be more involved in the secondary appraisal of hurt-eliciting messages, in which individuals' cognitive processing may be (and should be) comprehensive, reflective, or controlled. During secondary appraisal, individuals generate, select, and enact selected coping strategies to attain their desired short-term goal (e.g., exiting the scene to avoid further interaction) and long-term goal (e.g., discussing the interaction with the message sender

to maintain a close relationship). In this process, information such as the sources of the message or the place of the incident is necessary for individuals' decision-making processes.

The other possible explanation is associated with participants' ratings of the manipulation check. Unlike many previous studies that have used participants' retrospective accounts of hurtful messages to measure the intensity of message hurtfulness (e.g., Feeney, 2005; Leary et al., 1998; Vangelisti, 1994), this study measured perceived intensity of message hurtfulness by participants' spontaneous reactions to the hypothetical parental message. How the intensity of the message hurtfulness is measured is particularly important because a participant's immediate evaluation of the message hurtfulness at the moment of viewing the message is like "raw data" (Crick & Dodge, 1994) that may or may not be assimilated into their "cognitive database" (Crick & Dodge, 1994), that is, their cognitive schemas about hurtful messages, specifically in their relationship with the message sender. In this study, participants evaluated the hypothetical message as unrealistic, implying that the parental message is not typical for them; however, they saw the same hypothetical situation to be highly plausible for other people. The novelty and the atypicality of the hypothetical situation might have contributed to message appraisal. Most of the participants may have engaged in the hypothetical interaction without anticipatory anxiety. As a result, participants may have viewed the parent's message as a shock.

Theoretical Contributions and Implications

A key theoretical contribution of this study is its insight that message domains can have a significant influence on PMH. The career-messaging domain had the greatest

amount of hurtfulness for participants (M = 4.21, SD = 1.03), while relationship had the lowest level of hurtfulness (M = 3.97, SD = 1.18). These findings imply that young-adult children are most hurt when they receive a pessimistic message from their parent related to their future careers (e.g., having a financially secure job) and least hurt when they receive a message related to their future relationships (e.g., having a spouse they love). These findings are not surprising, considering that the study participants are college students. An important future goal that college students may have is to establish their careers, and they may carry worries about financial instability. Therefore, a parent's comment doubting their capability to achieve their goal is likely to be greatly hurtful. However, college students' relatively lower ratings of hurt caused by a parent's comments on their future relationship is interesting. The finding implies that participants are relatively less worried about partnering up or marrying in the future, and their low concern about marrying may have influenced their appraisal process, causing them to perceive a parent's message on their future relationships as less hurtful. Although today's college students may remain single far longer than other generations, given their desire to establish their careers before marrying, they still have as much interest in marriage as previous generations and expect to eventually marry. The finding is supported by surveys conducted by the National Center for Family and Marriage Research (NCFMR). Since the 1980's, the survey results have consistently shown that four out of five high school seniors expect to marry at some point in the future (Allred, 2019).

Limitations and Future Directions

This study has several limitations concerning its research design, data collection, and data analysis. A slight limitation in the research design was its *ex post facto* nature.

The research was designed based on participants' responses, based on their memory of events rather than on waiting for the next time they received a message or creating an experimental design. The limitation is considered slight because it is characteristic of the research design selected for the study. However, the design could have improved internal validity if the temporal dimension of the design had been considered, with different periods of time between the message reception and the participant's reaction to the message. Personal reflection on the message with the passage of time should be considered a limitation of the study's internal validity. A closely related limitation is that the personal and interpersonal characteristics of the study were not controlled for in the design. While the research was quasi-experimental in nature, a more robust design that considered the relationship between the student and the parent, as well as any psychological characteristics (e.g., self-esteem, dispositional optimism, or depression) that could predispose the participant to interpret messages as more or less likely to be hurtful should have been included. Thus, the internal validity of this research should be considered a critical limitation overall that should be addressed by incorporating more factors in data collection or by completing an experimental research project to follow up on the results in response to these design limitations.

The design of the analysis plan also included limitations. One critical limitation of the study was in the data collected. The plan for data analysis involved the use of multiple regression and a 2 x 4 x 3 ANOVA test. However, the data collected did not have a normal distribution, as determined by the Shapiro–Wilk test, in which the score for PMH was $p < .05$ across each category. These results are evidence that a non-parametric test would be preferable for data analysis. The use of a non-parametric test would have been a

slight limitation, but the absence of other tests that could take the place of the ANOVA or multiple regression tests constrained the options for analysis, which led to the use of the Kruskal–Wallis test to replace the one-way ANOVA. Based on this limitation, it was not possible to conduct multiple-level analysis of the variance of perceived message hurtfulness to determine the main effects of interactions between the variables.

Based on the findings, future research can take several additional directions. One direction is to further explore biological sex to understand the differences between male and female college students regarding PMH. Such research should be designed with a qualitative, descriptive research method and design. A qualitative method would support exploring how males and females react to hurtful messages from parents. Semi-structured interviews could determine common themes among male and female interview participants, which could be compared to further describe differences in message hurtfulness perception. Future research should also go further in understanding differences in PMH by examining the problem with a focus on gender. The completion of such research would require that data collection focus on identifying non-binary and transgender individuals to participate in the research. A scale measuring for factors such as masculinity and femininity could be used to generate variables for predicting PMH.

Conclusions

In closing, the results of the study leave more questions than answers. Several critical data limitations must be addressed before the evidence presented herein can be determined conclusive. The limitations exposed some errors in design and led to the collection of data that could be considered lacking in internal validity. In addition to the limitations of the study's research design and data collection elements, the lack of

normality in the data collected represents a problem of the lack of non-parametric solutions that could support an adequate response to the analytical problems. The analysis was constrained by a 2 x 4 x 3 ANOVA design to a single-level analysis design through the use of the Kruskal–Wallis test. Therefore, there is more work to do within the scope of the current research to understand the problem herein, based only on limitations to the research.

In addition to the limitations noted in this chapter, the results also leave questions concerning the effects that biological sex and message domain have on PMH. The findings include strong evidence supporting biological sex, but not message domain, as having a significant influence on PMH. While the findings from the ANOVA model described in Chapter 4 identify both biological sex and message domain as having significant influences on PMH, the influence of biological sex on PMH was supported by both the ANOVA model and the Kruskal–Wallis test. The Kruskal–Wallis test did not support a significant influence of message domain on PMH. Thus, there is more work to be done to examine the extent of message domain's influence on PMH, as well as to understand biological sex as an influencer of PMH.

While the findings of the research completed in this dissertation provide evidence of limited significance concerning how PMH is influenced, deeper reflection on the findings and how they were determined shows how future studies can respond to the problem in ways that address the shortcomings of the current study. Such results should be expected as a possibility in any research, particularly a dissertation, which is a manuscript detailing the activities taken in the transformation of a student into a Ph.D. The dissertation should be a personal document that supports the student learning a new

way to think about the world around, inspired by the domain of the research. The conclusion of this dissertation includes some insight into the problem, but more importantly, shall inspire the establishment of an academic agenda in which different research designs and improvements to characteristics of the study, such as its internal validity, may result in greater understanding of the problem.

References

Ainsworth, M. S., & Bowlby, J. (1991). An ethological approach to personality development. *American Psychologist, 46*(4), 333-341. https://doi.org/10.1037/0003-066X.46.4.333

Allen, J. G., & Haccoun, D. M. (1976). Sex differences in emotionality: A multidimensional approach. *Human Relations, 29*(8), 711–722. https://doi.org/10.1177/001872677602900801

Allred, C. (2019). High school seniors' expectations to marry, 2017. *Family Profiles*, FP-19-11. Bowling Green, OH: National Center for Family & Marriage Research. https://doi.org/10.25035/ncfmr/fp-19-11.

Amato, P. R. (1994). Father–child relations, mother–child relations, and offspring psychological well-being in early adulthood. *Journal of Marriage and the Family, 56*(4), 1031–1042. https://doi.org/10.2307/353611

Aquilino, W. S. (1997). From adolescent to young adult: A prospective study of parent-child relations during the transition to adulthood. *Journal of Marriage and the Family, 59*(3), 670–686. https://doi.org/10.2307/353953

Aquilino, W. S. (2006). Family relationships and support systems in emerging adulthood. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 193–217). American Psychological Association. https://doi.org/10.1037/11381-008

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. https://doi.org/10.1037/0003-066X.55.5.469

Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties.* Oxford University Press.

Barrett, L. F., Mesquita, B., Ochsner, K. N., & Gross, J. J. (2007). The experience of emotion. *Annual Review of Psychology*, *58*(1), 373-403. https://doi.org/10.1146/annurev.psych.58.110405.085709

Baumeister, R. F. (1998). The self. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (pp. 680–740). McGraw-Hill.

Biro, D. (2010). Is there such a thing as psychological pain? And why it matters. *Culture, Medicine and Psychiatry*, *34*(4), 658–667. https://doi.org/10.1007/s11013-010-9190-y

Bowlby, J. (1969). *Attachment and loss: Volume 1 - Attachment*. Basic Books.

Bowlby, J. (1973). *Attachment and loss: Volume 2 - Separation*. Basic Books.

Bowlby, J. (1980). *Attachment and loss: Volume 3 – Loss*. Basic Books.

Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry, 52*(4), 664–678. https://doi.org/10.1111/j.1939-0025.1982.tb01456.x

Bracken, B. A. (1992). *Multidimensional self-concept scale examiner's manual*. Pro-Ed. https://doi.org/10.1037/t01247-000

Bracken, B. A., Bunch, S., Keith, T. Z., & Keith, P. B. (2000). Child and adolescent multidimensional self-concept: A five-instrument factor analysis. *Psychology in the Schools, 37*(6), 483–493. https://psycnet.apa.org/doi/10.1002/1520-6807(200011)37:6%3C483::AID-PITS1%3E3.0.CO;2-R

Bradley, M. M., Codispoti, M., Sabatinelli, D., & Lang, P. J. (2001). Emotion and motivation II: Sex differences in picture processing. *Emotion*, *1*(3), 300-319. http://dx.doi.org/10.1037/1528-3542.1.3.300

Bretherton, I. (2010). Fathers in attachment theory and research: A review. *Early Child Development and Care, 180*(1-2), 9–23. https://doi.org/10.1080/03004430903414661

Brody, L. R., & Hall, J. A. (2008). Gender and emotion in context. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of emotions* (pp. 395–408). The Guilford Press.

Bronte-Tinkew, J., Moore, K. A., & Carrano, J. (2006). The father-child relationship, parenting styles, and adolescent risk behaviors in intact families. *Journal of Family Issues, 27*(6), 850–881. https://doi.org/10.1177/0192513X05285296

Buck, R., Miller, R. E., & Caul, W. F. (1974). Sex, personality, and physiological variables in the communication of affect via facial expression. *Journal of Personality and Social Psychology, 30*(4), 587–596. https://doi.org/10.1037/h0037041

Byng-Hall, J. (2008). The significance of children fulfilling parental roles: Implications for family therapy. *Journal of Family Therapy*, *30*(2), 147-162. https://doi.org/10.1111/j.1467-6427.2008.00423.x

Bynner, J. M., O'Malley, P. M., & Bachman, J. G. (1981). Self-esteem and delinquency revisited. *Journal of Youth Adolescence, 10*(6), 407–441, https://doi.org/10.1007/BF02087937

Byrne, B. M. (1984). The general/academic self-concept nomological network: A review of construct validation research. *Review of Educational Research, 54*(3), 427–456. https://doi.org/10.2307/1170455

Byrne, B. M. (1996). *Measuring self-concept across the life span: Issues and instrumentation.* American Psychological Association. https://doi.org/10.1037/10197-000

Cantor, N. (1990). From thought to behavior: "Having" and "doing" in the study of personality and cognition. *American Psychologist, 45*(6), 735–750. https://doi.org/10.1037/0003-066X.45.6.735

Carver, C. S., Reynolds, S. L., & Scheier, M. F. (1994). The possible selves of optimists and pessimists. *Journal of Research in Personality, 28*(2), 133–141. https://doi.org/10.1006/jrpe.1994.1011

Clark, L. A., & Watson, D. (1988). Mood and the mundane: Relations between daily life events and self-reported mood. *Journal of Personality and Social Psychology*, *54*(2), 296-308. https://doi.org/10.1037/0022-3514.54.2.296

Codispoti, M., Surcinelli, P., & Baldaro, B. (2008). Watching emotional movies: Affective reactions and gender differences. *International Journal of Psychophysiology*, *69*(2), 90-95. https://doi.org/10.1016/j.ijpsycho.2008.03.004

Cole, D. A., Maxwell, S. E., Martin, J. M., Peeke, L. G., Seroczynski, A. D., Tram, J. M., Hoffman, K. B., Ruiz, M. D., Jacquez, F., & Maschman, T. (2001). The development of multiple domains of child and adolescent self-concept: A cohort sequential longitudinal design. *Child Development*, *72*(6), 1723–1746. http://www.jstor.org/stable/3654375

Coles, R. L. (2015). Single-father families: A review of the literature. *Journal of Fam Theory Review*, *7*(2), 144-166. https://doi.org/10.1111/jftr.12069

Comello, M. L. G. (2009). William James on "possible selves": Implications for studying identity in communication contexts. *Communication Theory*, *19*(3), 337-350. https://doi.org/10.1111/j.1468-2885.2009.01346.x

Cooley, C. H. (1902). *Human nature and the social order.* Scribner

Coopersmith, S. (1967). *The antecedents of self-esteem*. W. H. Freeman & Co.

Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin, 115*(1), 74–101. https://doi.org/10.1037/0033-2909.115.1.74

Cross, S., & Markus, H. (1991). Possible selves across the life span. *Human Development*, *34*(4), 230-255. https://doi.org/10.1159/000277058

Dailey, R. (2006). Confirmation in parent – Adolescent relationships and adolescent openness: Toward extending confirmation theory. *Communication Monographs*, *73*(4), 434-458. https://doi.org/10.1080/03637750601055432

Davis, D., Shaver, P. R., Widaman, K. F., Vernon, M. L., Follette, W. C., & Beitz, K. (2006). "I can't get no satisfaction": Insecure attachment, inhibited sexual communication, and sexual dissatisfaction. *Personal Relationships*, *13*(4), 465-483. https://doi.org/10.1111/j.1475-6811.2006.00130.x

Deng, Y., Chang, L., Yang, M., Huo, M., & Zhou, R. (2016). Gender differences in emotional response: Inconsistency between experience and expressivity. *PLoS ONE, 11*(6). https://doi.org/10.1371/journal.pone.0158666

DeWall, C. N., Baumeister, R. F., & Masicampo, E. J. (2009). Feeling rejected but not much else: Resolving the paradox of emotional numbness following social exclusion. In A. L. Vangelisti (Ed.), *Feeling hurt in close relationships* (pp. 123-142). Cambridge University Press.

Dichter, G. S., Tomarken, A. J., & Baucom, B. R. (2002). Startle modulation before, during and after exposure to emotional stimuli. *International Journal of Psychophysiology, 43*(2), 191–196. https://doi.org/10.1016/S0167-8760(01)00170-2

Dimberg, U., & Lundquist, L.-O. (1990). Gender differences in facial reactions to facial expressions. *Biological Psychology, 30*(2), 151–159. https://doi.org/10.1016/0301-0511(90)90024-Q

Dörnyei, Z., & Chan, L. (2013). Motivation and vision: An analysis of future L2 Self images, sensory styles, and imagery capacity across two target languages. *Language Learning, 63*(3), 437-462. https://doi.org/10.1111/lang.12005

Ebaugh, H. R., & Curry, M. C. (2000). Fictive kin as social capital in new immigrant communities. *Sociological Perspectives, 43*(2), 189-209. https://doi.org/10.2307/1389793

Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, *302*(5643), 290-292. https://doi.org/10.1126/science.1089134

Ellis, A. (2002a). The role of irrational beliefs in perfectionism. In G. L. Flett, & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 217–229). American Psychological Association. https://doi.org/10.1037/10458-009

Ellis, K. (2002b). Perceived parental confirmation: Development and validation of an instrument, *The Southern Communication Journal*, *67*(4), 319-334. https://doi.org/10.1080/10417940209373242

Ellsworth, P. C., & Smith, C. A. (1988). From appraisal to emotion: Differences among unpleasant feelings. *Motivation and Emotion, 12*(3), 271–302. https://doi.org/10.1007/BF00993115

Erkut, S., & Kramer, V. W., & Konrad, A. (2008). Critical mass: Does the number of women on a corporate board make a difference? Women on corporate boards of directors. *International Research and Practice*. 350-366.

Feeney, J. A. (2004). Adult attachment and relationship functioning under stressful conditions: Understanding partners' responses to conflict and challenge. In W. S. Rholes & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical implications* (pp. 339–364). Guilford Publications.

Feeney, J. A. (2005). Hurt feelings in couple relationships: Exploring the role of attachment and perceptions of personal injury. *Personal Relationships, 12*(2), 253 -271. https://doi.org/10.1111/j.1350-4126.2005.00114.x

Fernandes, C., Monteiro, L., Santos, A. J., Fernandes, M., Antunes, M., Vaughn, B. E. & Veríssimo, M. (2020). Early father–child and mother–child attachment relationships: Contributions to preschoolers' social competence. *Attachment & Human Development, 22*(6), 687-704. https://doi.org/10.1080/14616734.2019.1692045

Fernández, C., Pascual, J. C., Soler, J., Elices, M., Portella, M. J., & Fernández-Abascal, E. (2012). Physiological responses induced by emotion-eliciting films. *Applied*

Psychophysiology and Biofeedback, 37(2), 73-79. https://doi.org/10.1007/s10484-012-9180-7

Fisher, R. J., & Dubé, L. (2005). Gender differences in responses to emotional advertising: A social desirability perspective. *Journal of Consumer Research, 31*(4), 850–858. https://doi.org/10.1086/426621

Folkes, V. S. (1982). Communicating the reasons for social rejection. *Journal of Experimental Social Psychology*, *18*(3), 235-252. https://doi.org/10.1016/0022-1031(82)90052-X

Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology, 50*(5), 992–1003. https://doi.org/10.1037/0022-3514.50.5.992

Forgas, J. P., & Williams, K. D. (Eds.) (2003). *The social self: Cognitive, interpersonal and intergroup perspectives*. Routledge.

Frijda, N. H. (1986). *The emotions.* Cambridge University Press.

Gard, M. G., & Kring, A. M. (2007). Sex differences in the time course of emotion. *Emotion, 7*(2), 429-437. doi:10.1037/1528-3542.7.2.429

George, D., & Mallery, P. (2010). *SPSS for windows step by step: A simple guide and reference 17.0* (10th ed.). Pearson, Boston.

Gold, M., & Mann, D. W. (1984). *Expelled to a friendlier place: A study of effective alternative school*s. University of Michigan Press.

Gove, W. R. (1972). The relationship between sex roles, marital status, and mental illness. *Social Forces, 51*(1), 34-44. https://doi.org/10.2307/2576129

Gove, W. R., & Tudor, J. F. (1973). Adult sex roles and mental illness. *American Journal of Sociology*, *78*(4), 812-835. https://doi.org/10.1086/225404.

Greenwald, A. G., & Pratkanis, A. R. (1984). The self. In R. S. Wyer, & T. K. Srull (Eds.), *Handbook of social cognition* (vol. 3, pp. 129–178). Erlbaum.

Greer, S. (2003). Self-esteem and the demoralized self: A genealogy of self-research and measurement. In D. B. Hill & M. J. Kral (Eds.), *About psychology: Essays at the crossroads of history, theory, and philosophy* (pp. 89-108). SUNY Press.

Grinker, R. R., & Spiegel, J. P. (1945). *Men under stress.* Blakiston. https://doi.org/10.1037/10784-000

Grossman, M., & Wood, W. (1993). Sex differences in intensity of emotional experience: A social role interpretation. *Journal of Personality and Social Psychology, 65*(5), 1010–1022. https://doi.org/10.1037/0022-3514.65.5.1010

Grossmann, K. E., Grossmann, K., & Waters, E. (Eds.). (2005). *Attachment from infancy to adulthood: The major longitudinal studies*. The Guilford Press.

Grossmann, K., Grossmann, K. E., Fremmer-Bombik, E., Kindler, H., Scheuerer-Englisch, H., & Zimmermann, A. P. (2002). The uniqueness of the child–father attachment relationship: Fathers' Sensitive and challenging play as a pivotal variable in a 16-year longitudinal study. *Social Development, 11*(3), 301-337. https://doi.org/10.1111/1467-9507.00202

Guerrero, L. K., Andersen, P. A., & Trost, M. R. (1998). Communication and emotion: Basic concepts and approaches. In P. A. Anderson & L. K. Guerrero (Eds.) *Handbook of communication and emotion* (pp. 5-24). Academic Press.

Hackmann, A., & Holmes, E. A. (2004). Reflecting on imagery: A clinical perspective and overview of the special issue of Memory on mental imagery and memory in psychopathology. *Memory, 12*(4), 389–402. https://doi.org/10.1080/09658210444000133

Hall, E., Hall, E., Leech, A., & Leech, A. (1990). *Scripted fantasy in the classroom.* Routledge. https://doi.org/10.4324/9780203974971

Harter, S. (1990). Self and identity development. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 352–387). Harvard University Press.

Higgins, E. T., Bond, R. N., Klein, R., & Strauman, T. (1986). Self-discrepancies and emotional vulnerability: How magnitude, accessibility, and type of discrepancy influence affect. *Journal of Personality and Social Psychology*, *51*(1), 5-15. https://doi.org/10.1037/0022-3514.51.1.5

Hill, J. P., & Holmbeck, G. (1986). Attachment and autonomy during adolescence. In G. Whitehurst (Ed.), *Annals of child development* (vol. 3; pp. 145-189). JAI.

Hirsch, C. R., Clark, D. M., Mathews, A., & Williams, R. (2003). Self-images play a causal role in social phobia. *Behaviour Research and Therapy, 41*(8), 909–921. https://doi.org/10.1016/S0005-7967(02)00103-1

Holmes, E. A., & Mathews, A. (2005). Mental Imagery and Emotion: A Special Relationship? *Emotion, 5*(4), 489–497. https://doi.org/10.1037/1528-3542.5.4.489

Infante, D. A., Ranger, A. S., & Jordan, F. F. (1996). Affirming and non-affirming style, dyad sex, and the perception of argumentation and verbal aggression in an

interpersonal dispute. *Human Communication Research*, *22*(3), 315-334. https://doi.org/10.1111/j.1468-2958.1996.tb00370.x

James, W. (1890). *The principles of psychology* (vol. 1). Henry Holt and Co.

Jessee, V., & Adamsons, K. (2018). Father involvement and father–child relationship quality: An intergenerational perspective. *Parenting: Science and Practice, 18*(1), 28–44. https://doi.org/10.1080/15295192.2018.1405700

Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, *87*(4), 765-780. https://doi.org/10.1037/0021-9010.87.4.765

Kelley, H. H. (1973). The processes of causal attribution. *American Psychologist, 28*(2), 107–128. https://doi.org/10.1037/h0034225

Kihlstrom, J. F., Beer, J. S., & Klein, S. B. (2003). Self and identity as memory. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 68–90). The Guilford Press.

Kling, K. C., Hyde, J. S., Showers, C. J., & Buswell, B. N. (1999). Gender differences in self-esteem: A meta-analysis. *Psychological Bulletin, 125*(4), 470–500. https://doi.org/10.1037/0033-2909.125.4.470

L'Abate, L. (1977). Intimacy is sharing hurt feelings: A reply to David Mace. *Journal of Marital and Family Therapy*, *3*(2), 13-16. https://doi.org/10.1111/j.1752-0606.1977.tb00450.x

Lamb, M. E. (Ed.). (2010). *The role of the father in child development* (5th ed.). Wiley.

Laursen, B. (2005). Dyadic and group perspectives on close relationships. *International Journal of Behavioral Development*, *29*(2), 97–100. https://doi.org/10.1080/01650250444000450

Lazarus, R. S. (1991). *Emotion and adaptation.* Oxford University Press.

Lazarus, R., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Leaper, C., Anderson, K. J., & Sanders, P. (1998). Moderators of gender effects on parents' talk to their children: A meta-analysis. *Developmental Psychology*, *34*(1), 3–27. https://doi.org/10.1037/0012-1649.34.1.3

Leary, M. R., & Leder, S. (2009). The nature of hurt feelings: Emotional experience and cognitive appraisals. In A. L. Vangelisti (Ed.), *Feeling hurt in close relationships* (pp. 15–33). Cambridge University Press. https://doi.org/10.1017/CBO9780511770548.003

Leary, M. R., & Springer, C. A. (2001). Hurt feelings: The neglected motion. In R. Kowalski (Ed.), *Aversive behaviors and interpersonal transgression* (pp. 151-175). American Psychological Association. https://doi.org/10.1037/10365-006

Leary, M. R., Springer, C., Negel, L., Ansell, E., & Evans, K. (1998). The causes, phenomenology, and consequences of hurt feelings. *Journal of Personality and Social Psychology, 74*(5), 1225–1237. https://doi.org/10.1037/0022-3514.74.5.1225

Lemay, E. P., Overall, N. C., & Clark, M. S. (2012). Experiences and interpersonal consequences of hurt feelings and anger. *Journal of Personality and Social Psychology*, *103*(6), 982-1006. https://doi.org/10.1037/a0030064

Lewis, M. (1990). Self-knowledge and social development in early life. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 277–300). The Guilford Press.

Linville, P. W. (1985). Self-complexity and affective extremity: Don't put all of your eggs in one cognitive basket. Social Cognition, 3(1), 94–120. https://doi.org/10.1521/soco.1985.3.1.94

MacDonald, G., & Leary, M. R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin*, *131*(2), 202–223. https://doi.org/10.1037/0033-2909.131.2.202

Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology, 35*(2), 63–78. https://doi.org/10.1037/0022-3514.35.2.63

Markus, H., & Kunda, Z. (1986). Stability and malleability of the self-concept. *Journal of Personality and Social Psychology*, *51*(4), 858-866. https://psycnet.apa.org/doi/10.1037/0022-3514.51.4.858

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, *41*(9), 954-969. https://doi.org/10.1037/0003-066X.41.9.954

Markus, H., & Ruvolo, A. (1989). Possible selves: Personalized representations of goals. In L. A. Pervin (Ed.), *Goal concepts in personality and social psychology* (pp. 211–241). Erlbaum.

Markus, H., & Sentis, K. (1982). The self in social information processing. In J. Suls (Ed.), *Psychological Perspectives on the Self* (pp. 41–70). Erlbaum.

Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology, 38,* 299–337. https://doi.org/10.1146/annurev.ps.38.020187.001503

Markus, H., & Zajonc, R. B. (1985). The cognitive perspective in social psychology. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (3rd ed.; pp. 137-230). Random House.

Markus, H., Crane, M., Bernstein, S., & Siladi, M. (1982). Self-schemas and gender. *Journal of Personality and Social Psychology, 42*(1), 38-50. http://dx.doi.org/10.1037/0022-3514.42.1.38

Markus, H., Smith, J., & Moreland, R. L. (1985). Role of the self-concept in the perception of others. *Journal of Personality and Social Psychology, 49*(6), 1494–1512. https://doi.org/10.1037/0022-3514.49.6.1494

Marsh, H. W. (1993). Academic self-concept: Theory, measurement, and research. In J. M. Suls (Ed.), *The self in social perspective* (pp. 59–98). Erlbaum.

Marsh, H. W., & Richards, G. E. (1988). Tennessee self-concept scale: Reliability, internal structure, and construct validity. *Journal of Personality and Social Psychology, 55*(4), 612–624. https://doi.org/10.1037/0022-3514.55.4.612

Marsh, H. W., & Shavelson, R. (1985). Self-concept: Its multifaceted, hierarchical structure. *Educational Psychologist, 20*(3), 107–123. https://doi.org/10.1207/s15326985ep2003_1

Marsh, H. W., Cheng, J., & Martin, A. J. (2008). How we judge ourselves from different perspectives: Contextual influences on self-concept formation. *Advances in Motivation and Achievement: Social Psychological Perspectives*, *15*, 315-356.

Marsh, H. W., Craven, R. G., & Martin, A. J. (2006). What is the nature of self-esteem? Unidimensional and multidimensional perspectives. In M. H. Kernis (Ed.), *Self-esteem issues and answers: A sourcebook of current perspectives* (pp. 16–24). Psychology Press.

Marx, R. W., & Winne, P. H. (1978). Construct interpretations of three self-concept inventories. *American Educational Research Journal, 15*(1), 99–109. https://doi.org/10.2307/1162690

McCarthy, J. D., & Hoge, D. R. (1984). The dynamics of self-esteem and delinquency. *American Journal of Sociology, 90*(2), 396–410. https://doi.org/10.1086/228085

McConnell, A. R. (2011). The multiple self-aspects framework: Self-concept representation and its implications. *Personality and Social Psychology Review, 15*(1), 3–27. https://doi.org/10.1177/1088868310371101

McGrath, P. A. (1994). Psychological aspects of pain perception. *Archives of Oral Biology*, *39*, 55-62. https://doi.org/10.1016/0003-9969(94)90189-9

McGuire, W. J., & Padawer-Singer, A. (1976). Trait salience in the spontaneous self-concept. *Journal of Personality and Social Psychology, 33*(6), 743–754. https://doi.org/10.1037/0022-3514.33.6.743

McKinney, C., & Renk, K. (2008). Differential parenting between mothers and fathers: Implications for late adolescents. *Journal of Family Issues, 29*(6), 806–827. https://doi.org/10.1177/0192513X07311222

McLaren, R. M., & Pederson, J. R. (2014). Relational communication and understanding in conversations about hurtful events between parents and adolescents. *Journal of Communication, 64*(1), 145–166. https://doi.org/10.1111/jcom.12072

McLaren, R. M., & Sillars, A. (2014). Hurtful episodes in parent - Adolescent relationships: How accounts and attributions contribute to the difficulty of talking about hurt. *Communication Monographs, 81*(3), 359–385. https://doi.org/10.1080/03637751.2014.933244

McLaren, R. M., & Solomon, D. H. (2008). Appraisals and distancing responses to hurtful messages. *Communication Research*, *35*(3), 339-357. https://doi.org/10.1177/0093650208315961

Mead, G. H. (1934). *Mind, self and society*. University of Chicago Press.

Mills, R. S. L., & Piotrowski, C. C. (2009). Haven in a heartless world? Hurt feelings in the family. In A. L. Vangelisti (Ed.), *Feeling hurt in close relationships* (pp. 260–287). Cambridge University Press. https://doi.org/10.1017/CBO9780511770548.014

Mills, R. S. L., Nazar, J., & Farrell, H. M. (2002). Child and parent perceptions of hurtful messages. *Journal of Social and Personal Relationships*, *19*(6), 731–754. https://doi.org/10.1177/0265407502196001

Murray, S. L., Rose, P., Bellavia, G. M., Holmes, J. G., & Kusche, A. G. (2002). When rejection stings: How self-esteem constrains relationship-enhancement processes. *Journal of Personality and Social Psychology, 83*(3), 556–573. https://doi.org/10.1037/0022-3514.83.3.556

Nolen-Hoeksema, S. (1987). Sex differences in unipolar depression: Evidence and theory. *Psychological Bulletin, 101*(2), 259–282. https://doi.org/10.1037/0033-2909.101.2.259

Noller, P. (1995). Parent-adolescent relationships. In M. A. Fitzpatrick, & A. L. Vangelisti (Eds.), *Explaining family interactions* (pp. 77-111). SAGE.

Norris, A. (1988). Cognitive analysis of contraceptive behavior. *Journal of Nursing Scholarshi*p, *20*(3), 135-140. https://doi.org/10.1111/j.1547-5069.1988.tb00053.x

O'Mara, A. J., Marsh, H. W., Craven, R. G., & Debus, R. L. (2006). Do self-concept interventions make a difference? A synergistic blend of construct validation and meta-analysis. *Educational Psychologist, 41*(3), 181–206. https://doi.org/10.1207/s15326985ep4103_4

Oyserman, D. (2006). High power, low power, and equality: Culture beyond individualism and collectivism. *Journal of Consumer Psychology*, *16*(4), 352-356. https://doi.org/10.1207/s15327663jcp1604_6

Oyserman, D., & Fryberg, S. (2006). The possible selves of diverse adolescents: Content and function across gender, race and national origin. In C. Dunkel & J. Kerpelman (Eds.), *Possible selves: Theory, research and applications* (pp. 17–39). Nova Science.

Oyserman, D., & Markus, H. R. (1990). Possible selves and delinquency. *Journal of Personality and Social Psychology, 59*(1), 112–125. https://doi.org/10.1037/0022-3514.59.1.112

Oyserman, D., Bybee, D., & Terry, K. (2006). Possible selves and academic outcomes: How and when possible selves impel action. *Journal of Personality and Social Psychology*, *91*(1), 188-204. https://doi.org/doi/10.1037/0022-3514.91.1.188

Oyserman, D., Bybee, D., Terry, K., & Hart-Johnson, T. (2004). Possible selves as roadmaps. *Journal of Research in Personality*, *38*(2), 130-149. https://doi.org/10.1016/S0092-6566(03)00057-6

Oyserman, D., Elmore, K., & Smith, G. (2012). Self, self-concept, and identity. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 69–104). The Guilford Press.

Packard, B. W. L., & Conway, P. F. (2006). Methodological choice and its consequences for possible selves research. *Identity*, *6*(3), 251-271. https://doi.org/10.1207/s1532706xid0603_3

Paquette, D. (2004). Theorizing the father-child relationship: Mechanisms and developmental outcomes. *Human Development, 47*(4), 193–219. https://doi.org/10.1159/000078723

Paquette, D., & Bigras, M. (2010). The risky situation: A procedure for assessing the father-child activation relationship. *Early Child Development and Care, 180*(1-2), 33–50. https://doi.org/10.1080/03004430903414687

Perlman, D. (2009). Foreword. In A. Vangelisti (Ed.), *Feeling hurt in close relationships* (pp. xv-xx). Cambridge University Press.

Priem, J. S., McLaren, R. M., & Solomon, D. H. (2010). Relational messages, perceptions of hurt, and biological stress reactions to a disconfirming interaction.

Communication Research, 37(1), 48-72. https://doi.org/10.1177/0093650209351470

Riding, R., & Rayner, S. (1998). *Cognitive styles and learning strategies: Understanding style differences in learning and behavior*. David Fulton Publishers. https://doi.org/10.4324/9781315068015

Riley, S. M. (2021). *College persistence and fictive kinship of African American Male alumni from a historically black university* [Dissertation, Walden University]. Scholar Works. https://scholarworks.waldenu.edu/dissertations/11020

Roberts, R. E., & Bengtson, V. L. (1993). Relationships with parents, self-esteem, and psychological well-being in young adulthood. *Social Psychology Quarterly, 56*(4), 263-277. https://doi.org/10.2307/2786663

Robinson, B. S., Davis, K. L., & Meara, N. M (2003). Motivational attributes of occupational possible selves for low-income rural women. *Journal of Counseling Psychology*, *50*(2), 156-164. https://psycnet.apa.org/doi/10.1037/0022-0167.50.2.156

Roseman, I. J., & Smith, C. A. (2001). Appraisal theory: Overview, assumptions, varieties, controversies. In K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), *Appraisal processes in emotion: Theory, methods, research* (pp. 3–19). Oxford University Press.

Rosnati, R., Lafrate, R., & Scabini, E. (2007). Parent-adolescent communication in foster, inter-country adoptive, and biological Italian families: Gender and generational differences. *International Journal of Psychology, 42*(1), 36–45. https://doi.org/10.1080/00207590500412128

Ryan, R. M., & Lynch, J. H. (1989). Emotional autonomy versus detachment: Revisiting the vicissitudes of adolescence and young adulthood. *Child Development, 60*(2), 340–356. https://doi.org/10.2307/1130981

Salisch, M. V. (2001). Children's emotional development: Challenges in their relationships to parents, peers, and friends. *International Journal of Behavioral Development*, *25*(4), 310-319.

Satir, V. (1967). *Conjoint family therapy: A guide to theory and technique*. Science and Behavior Books.

Scarry, E. (1985). Injury and the structure of war. *Representations*, *10*, 1-51. https://doi.org/10.2307/3043799

Schmidt, S., Tinti, C., Levine, L. J., & Testa, S. (2010). Appraisals, emotions and emotion regulation: An integrative approach. *Motivation and Emotion, 34*(1), 63–72. https://doi.org/10.1007/s11031-010-9155-z

Schwartz, S. J., & Finley, G. E. (2006). Father involvement, nurturant fathering, and young adult psychosocial functioning: Differences among adoptive, adoptive stepfather, and nonadoptive stepfamilies. *Journal of Family Issues, 27*(5), 712–731. https://doi.org/10.1177/0192513X05284003

Shavelson, R. J., & Bolus, R. (1982). Self-concept: The interplay of theory and methods. *Journal of Educational Psychology, 74*(1), 3–17. https://doi.org/10.1037/0022-0663.74.1.3

Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Research, 46*(3), 407–441. https://doi.org/10.2307/1170010

Shaver, P. R., Mikulincer, M., Lavy, S., & Cassidy, J. (2009). Understanding and altering hurt feelings: An attachment-theoretical perspective on the generation and regulation of emotions. In A. L. Vangelisti (Ed.), *Feeling hurt in close relationships* (pp. 92–119). Cambridge University Press. https://doi.org/10.1017/CBO9780511770548.007

Shneidman, E. S. (1996). *The suicidal mind.* Oxford University Press.

Sieburg, E. (1985). *Family communication: An integrated systems approach*. Gardner Press.

Smith, C. A., & Kirby, L. D. (2001). Affect and cognitive appraisal processes. In J. P. Forgas (Ed.), *Handbook of affect and social cognition* (pp. 75–92). Erlbaum.

Stack, C. B. (1975). *All our kin*. Basic Books

Stapley, J. C., & Haviland, J. M. (1989). Beyond depression: Gender differences in normal adolescents' emotional experiences. *Sex Roles: A Journal of Research, 20*(5-6), 295–308. https://doi.org/10.1007/BF00287726

Stein, C. A. (1995). Heat flow of the earth. In T. J. Ahrens (Ed.), *Global earth physics* (pp. 144-158). Wiley.

Stone, A. A., & Neale, J. M. (1984). New measure of daily coping: Development and preliminary results. *Journal of Personality and Social Psychology,* 46(4), 892-906. https://doi.org/10.1037/0022-3514.46.4.892

Sun, M. (2017). *The positive side of hurtful communication: when hurt feelings improve close relationships* [Dissertation, The University of Texas at Austin]. University of Texas Library.

https://repositories.lib.utexas.edu/bitstream/handle/2152/63637/SUN-DISSERTATION-2017.pdf?sequence=1&isAllowed=y

Tato, R., Santos, R., Kompe, R., Pardo, J. M. (2002). Emotional space improves emotion recognition. In *Proceedings 7th International Conference on Spoken Language Processing* (ICSLP 2002) (pp. 2029-2032). ISCA. https://doi.org/10.21437/ICSLP.2002-557

Taylor, S. E., Crocker, J., & D'Agostino, J. (1978). Schematic bases of social problem-solving. *Personality and Social Psychology Bulletin, 4*(3), 447–451. https://doi.org/10.1177/014616727800400318

Templeton, G. F. (2011). A two-step approach for transforming continuous variables to normal: Implications and recommendations for IS research. *Communications of the Association for Information Systems*, *28*, 41-58. https://doi.org/10.17705/1CAIS.02804

Theiss, J. A., Knobloch, L. K., Checton, M. G., & Magsamen-Conrad, K. (2009). Relationship characteristics associated with the experience of hurt in romantic relationships: A test of the relational turbulence model. *Human Communication Research, 35*(4), 588–615. https://doi.org/10.1111/j.1468-2958.2009.01364.x

Tokunaga, R. S. (2008). But, words can never hurt me if ... : Cultural relativity in evaluating appraisals, attributions, and consequences of hurtful messages. *Journal of Intercultural Communication Research, 37*(3), 169-188. https://doi.org/10.1080/17475750903135358

Turner, I. (1982). Pre-school children's perceptions of parental attitudes. *School Psychology International*, *3*(3), 137–142. https://doi.org/10.1177/0143034382033002

Vangelisti, A. L. (1994). Messages that hurt. In W. R. Cupach & B. H. Spitzberg (Eds.), *The dark side of interpersonal communication* (pp. 53–82). Erlbaum.

Vangelisti, A. L. (2001). Making sense of hurtful interactions in close relationships: When hurt feelings create distance. In V. Manusov & J. H. Harvey (Eds.), Attribution, communication behavior, and close relationships (pp. 38–58). Cambridge University Press.

Vangelisti, A. L. (2007). Communicating hurt. In B. H. Spitzberg, & W. R. Cupach (Eds.), *The dark side of interpersonal communication* (2nd ed., pp. 121-142). Erlbaum.

Vangelisti, A. L. (2009). Communicating hurt. In B. H. Spitzberg, & W. R. Cupach (Eds.), *The dark side of interpersonal communication* (pp. 131-152). Routledge.

Vangelisti, A. L., & Crumley, L. P. (1998). Reactions to messages that hurt: The influence of relational contexts. *Communication Monographs, 65*(3), 173–196. https://doi.org/10.1080/03637759809376447

Vangelisti, A. L., & Young, S. L. (2000). When words hurt: The effects of perceived intentionality on interpersonal relationships. *Journal of Social and Personal Relationships, 17*(3), 393–424. https://doi.org/10.1177/0265407500173005

Vangelisti, A. L., Maguire, K. C., Alexander, A. L., & Clark, G. (2007). Hurtful family environments: Links with individual, relationship, and perceptual variables.

Communication Monographs, *74*(3), 357–385. https://doi.org/10.1080/03637750701543477

Vangelisti, A. L., Young, S. L., Carpenter-Theune, K. E., & Alexander, A. L. (2005). Why does it hurt? The perceived causes of hurt feelings. *Communication Research*, 32(4), 443–477. https://doi.org/10.1177/0093650205277319

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review, 92*(4), 548–573. https://doi.org/10.1037/0033-295X.92.4.548

Wylie, R. C. (1989). *Measures of self-concept.* University of Nebraska Press.

Yang, R. P. J., & Noels, K. A. (2013). The possible selves of international students and their cross-cultural adjustment in Canada. *International Journal of Psychology*, *48*(3), 316-323. https://doi.org/10.1080/00207594.2012.660161

Yoo, H., Feng, X., & Day, R. D. (2013). Adolescents' empathy and prosocial behavior in the family context: A longitudinal study. *Journal of Youth and Adolescence*, *42*(12), 1858-1872. https://doi.org/10.1007/s10964-012-9900-6

Zhang, S. (2009). Sender–recipient perspectives of honest but hurtful evaluative messages in romantic relationships, *Communication Reports*, 22(2), 89-101. https://doi.org/10.1080/08934210903032448

Appendix A

Priming Scenarios

Priming worst possible selves (4 domains): Subjective well-being domain; Relationships domain; Careers domain; General domain (all three domains together)

Priming best possible selves (4 domains): Subjective well-being domain; Relationships domain; Careers domain; General domain (all three domains together)

Your Worst Possible Self

Imagining Your Worst Possible Self (Subjective Well-being)

You have been randomly assigned to a condition in which you are going to think about your worst possible self. "Your worst possible self" means "yourself in a future in which everything has gone as badly as it possibly could have."

There is one domain of your worst possible self we are interested in. Please focus on this domain when answering questions.

Subjective well-being: This domain is about a state of well-being (wellness, mental health) and quality of life. Therefore, "Think about your worst possible self in the domain of subjective well-being" means, "Think about yourself in a future in which your well-being (wellness, mental health) and quality of your life have gone as badly as they possibly could have." For example, you may think that you will wind up being unhappy and suffering with depression.

Now, I want you to think about your worst possible self in five years in this domain (subjective well-being). Suppose you failed everything you've been trying to achieve in five years despite your best efforts. For the next three minutes, think about

your worst possible self as specifically as possible, and write down at least one paragraph that describes your worst possible self.

Please write your worst possible self in the domain of subjective well-being (1 paragraph = 100 words).

Imagining Your Worst Possible Self (Relationships)

You have been randomly assigned to a condition in which you are going to think about your worst possible self. "Your worst possible self" means “yourself in a future in which everything has gone as badly as it possibly could have."

There is one domain of your worst possible self we are interested in. Please focus on this domain when answering questions.

Relationships: This domain is about personal relationships that include friendships, romantic relationships, and family relationships. Therefore, “Think about your worst possible self in the domain of relationships” means, “Think about yourself in the future in which your relationships have gone as badly as they possibly could have.” For example, you may think that you will end up being alone without a romantic partner despite your desire to have one and also feel lonely because you are no longer in contact with your college friends with whom you used to hang out all the time.

Now, I want you to think about your worst possible self in five years in this domain (relationships). Suppose you failed everything you‘ve been trying to achieve in five years despite your best efforts. For the next three minutes, think about your worst possible self as specifically as possible, and write down at least one paragraph that describes your worst possible self.

Please write your worst possible self in the domain of relationships (1 paragraph = 100 words).

Imagining Your Worst Possible Self (Careers)

You have been randomly assigned to a condition in which you are going to think about your worst possible self. "Your worst possible self" means “yourself in a future in which everything has gone as badly as it possibly could have."

There is one domain of your worst possible self we are interested in. Please focus on this domain when answering questions.

Careers: This domain is about your jobs, occupations, and professions. Therefore, “Think about your worst possible self in the domain of careers” means, “Think about yourself in the future in which your career has gone as badly as it possibly could have.” For example, you may think you will end up being unemployed despite multiple job interviews, which will eventually result in living with your parents for financial reasons.

Now, I want you to think about your worst possible self in five years in this domain (careers). Suppose you failed everything you‘ve been trying to achieve in five years despite your best efforts. For the next three minutes, think about your worst possible self as specifically as possible, and write down,at least one paragraph that describe your worst possible self.

Please write your worst possible self in the domain of careers (1 paragraph = 100 words).

Imagining Your Worst Possible Self (General)

You have been randomly assigned to a condition in which you are going to think about your worst possible self. "Your worst possible self" means “yourself in a future in which everything has gone as badly as it possibly could have."

There are three domains of your worst possible self we are interested in. Please focus on these domains when answering questions.

Subjective well-being: This domain is about a state of well-being (wellness, mental health) and quality of life. Therefore, “Think about your worst possible self in the domain of subjective well-being” means, “Think about yourself in a future in which your well-being (wellness, mental health) and quality of your life have gone as badly as they possibly could have.” For example, you may think that you will wind up being unhappy and suffering with depression.

Relationships: This domain is about personal relationships that include friendships, romantic relationship, and family relationship. Therefore, “Think about your worst possible self in the domain of relationships” means, “Think about yourself in the future in which your relationships has gone as badly as it possibly could have.” For example, you may think that you will end up being alone without a romantic partner despite your desire to have one and also feel lonely because you are no longer in contact with your college friends with whom you used to hang out all the time.

Careers: This domain is about your jobs, occupations, and professions. Therefore, “Think about your worst possible self in the domain of careers” means, “Think about yourself in the future in which your career has gone as badly as it possibly could have.” For example, you may think you will end up being unemployed despite multiple job interviews, which will eventually result in living with your parents for financial reasons.

Now, I want you to think about your worst possible self in five years in all the three domains (subjective well-being, relationships, and careers). Suppose you failed everything you've been trying to achieve in five years despite your best efforts. For the next three minutes, think about your worst possible self as specifically as possible, and write down at least one paragraph that describe your worst possible self in each domain.

Please write your worst possible self in the domain of subjective well- being (1 paragraph = 100 words).

Please write your worst possible self in the domain of relationships (1 paragraph = 100 words).

Please write your worst possible self in the domain of careers (1 paragraph = 100 words).

Your Best Possible Self (Subjective well-being, Relationship, Careers, General)

Imagining Your Best Possible Self (Subjective well-being)

You have been randomly assigned to a condition in which you are going to think about your best possible self. "Your best possible self" means "yourself in a future in which everything has turned out as good as possible."

There is one domain of your best possible self we are interested in. Please focus on this domain when answering questions.

Subjective well-being: This domain is about a state of well-being (wellness, mental health) and quality of life. Therefore, "Think about your best possible self in the domain of subjective well-being" means, "Think about yourself in the future in which your well-being (wellness, mental health) and quality of your life have turned out in the

best possible ways." For example, you may think that you will become a happy person after overcoming depression.

Now, I want you to think about your best possible self in five years in this domain (subjective well-being). Suppose you have worked hard and managed to achieve all your goals, and everything has gone as well as possible in five years. For the next three minutes, think about your best possible self as specifically as possible, and write down at least one paragraph that describe your best possible self.

Please write your best possible self in the domain of subjective well- being (1 paragraph = 100 words).

Imagining Your Best Possible Self (Relationships)

You have been randomly assigned to a condition in which you are going to think about your best possible self. "Your best possible self" means “yourself in a future in which everything has turned out as good as possible."

There is one domain of your best possible self we are interested in. Please focus on this domain when answering questions.

Relationships: This domain is about personal relationships that include friendships, romantic relationship, and family relationship. Therefore, “Think about your best possible self in the domain of relationships” means, “Think about yourself in the future in which your friendships, romantic relationship, and family relationship have turned out in the best possible ways." For example, you may think that you will be married with someone you deeply love and maintain close relationships with your best friends and all your family members.

Now, I want you to think about your best possible self in five years in this domain (relationships). Suppose you have worked hard and managed to achieve all your goals, and everything has gone as well as possible in five years. For the next three minutes, think about your best possible self as specifically as possible, and write down at least one paragraph that describe your best possible self.

Please write your best possible self in the domain of relationships (1 paragraph = 100 words).

Imagining Your Best Possible Self (Careers)

You have been randomly assigned to a condition in which you are going to think about your best possible self. "Your best possible self" means “yourself in a future in which everything has turned out as good as possible."

There is one domain of your best possible self we are interested in. Please focus on this domain when answering questions.

Careers: This domain is about your jobs, occupations, and professions. Therefore, “Think about your best possible self in the domain of careers” means, “Think about yourself in the future in which your careers have turned out in the best possible ways." For example, you may think that you will be an assistant professor at college and enjoy teaching and research.

Now, I want you to think about your best possible self in five years in this domain (careers). Suppose you have worked hard and managed to achieve all your goals, and everything has gone as well as possible in five years. For the next three minutes, think about your best possible self as specifically as possible, and write down at least one paragraph that describes your best possible self.

Please write your best possible self in the domain of careers (1 paragraph = 100 words).

Imagining Your Best Possible Self (General)

You have been randomly assigned to a condition in which you are going to think about your best possible self. "Your best possible self" means “yourself in a future in which everything has turned out as good as possible."

There are three domains of your best possible self we are interested in. Please focus on these domains when answering questions.

Subjective well-being: This domain is about a state of well-being (wellness, mental health) and quality of life. Therefore, “Think about your best possible self in the domain of subjective well-being” means, “Think about yourself in the future in which your well-being (wellness, mental health) and quality of your life have turned out in the best possible ways." For example, you may think that you will become a happy person after overcoming depression.

Relationships: This domain is about personal relationships that include friendships, romantic relationship, and family relationship. Therefore, “Think about your best possible self in the domain of relationships” means, “Think about yourself in the future in which your friendships, romantic relationship, and family relationship have turned out in the best possible ways." For example, you may think that you will be married with someone you deeply love and maintain close relationships with your best friends and all your family members.

Careers: This domain is about your jobs, occupations, and professions. Therefore, “Think about your best possible self in the domain of careers” means, “Think about

yourself in the future in which your careers have turned out in the best possible ways." For example, you may think that you will be an assistant professor at college and enjoy teaching and research.

Now, I want you to think about your best possible self in five years in all the three domains (subjective well-being, relationships, and careers). Suppose you have worked hard and managed to achieve all your goals, and everything has gone as well as possible in five years. For the next three minutes, think about your best possible self as specifically as possible, and write down at least one paragraph that describes your best possible self in each domain.

Please write your best possible self in the domain of subjective well- being (1 paragraph = 100 words).

Please write your best possible self in the domain of relationships (1 paragraph = 100 words).

Please write your best possible self in the domain of careers (1 paragraph = 100 words).

Appendix B

Parental Pessimistic Comments on Children's Future

Hypothetical situation: Parent–child talk about the child's future well-being

(This hypothetical situation involves a father and a mother. If you live in a household without both father and mother, please imagine the hurtful comment coming from a parent who is present).

Now, you are going to read a short passage. It describes a situation where parents and their college-age child are talking about the child's future at a dinner table. Please imagine yourself in the situation that follows. Picture the situation vividly as if the event is actually happening to you. As you read the passage, place yourself in the position of the college student in this situation. Please answer the following questions regarding the situation.

You are a college student. You went home over break and are spending time with your family. One day, as you are having dinner with your family, your mother asks, "How are you doing?" "I have been a little bit depressed lately" you answer. Then, your father quickly looks at you and says, "I wouldn't be surprised if you'd never be a happy person."

Hypothetical situation: Parent–child talk about the child's future relationship

(This hypothetical situation involves a father and a mother. If you live in a household without both father and mother, please imagine the hurtful comment coming from a parent who is present).

Now, you are going to read a short passage. It describes a situation where parents and their college-age child are talking about the child's future at a dinner table. Please

imagine yourself in the situation that follows. Picture the situation vividly as if the event is actually happening to you. As you read the passage, place yourself in the position of the college student in this situation. Please answer the following questions regarding the situation.

You are a college student. You went home over break and are spending time with your family. One day, as you are having dinner with your family, your mother asks, "Are you romantically involved with someone?" "Not really," you answer. Then, your father quickly looks at you and says, "I wouldn't be surprised if you'd die alone."

Hypothetical situation: Parent–child talk about the child's future career

(This hypothetical situation involves a father and a mother. If you live in a household without both father and mother, please imagine the hurtful comment coming from a parent who is present).

Now, you are going to read a short passage. It describes a situation where parents and their college-age child are talking about the child's future at a dinner table. Please imagine yourself in the situation that follows. Picture the situation vividly as if the event is actually happening to you. As you read the passage, place yourself in the position of the college student in this situation. Please answer the following questions regarding the situation.

You are a college student. You went home over break and are spending time with your family. One day, as you are having dinner with your family, your mother asks, "How is your career plan coming along?" "Thus far, no luck" you answer. Then, your father quickly looks at you and says, "I wouldn't be surprised if you'd never get a decent job."

Appendix C

Self-Expectations

A 5-point Likert-type scale (1 = Very Unlikely, 2 = Unlikely, 3 = Neutral, 4 = Likely, 5 = Very Likely) was provided to measure participants' self-expectation in three domains (subjective well-being, relationships, and careers), separately.

Subjective Well-being Domain

Please rate the extent to which each statement below describes How You See Your Future in 5 Years.

1. I will be satisfied with my life.
2. I will be optimistic about my life.
3. I will be proud of who I am.
4. I will be a happy person.
5. My life will be exciting.

Relationships Domain

1. I will have one or more persons in my life (including my family) who unconditionally love me.
2. I will have one or more persons in my life (including my family) who deeply care about me.
3. I will have one or more persons in my life (including my family) whom I rely on and trust.
4. I will have one or more persons in my life (including my family) who treat me with respect.

5. I will have one or more persons in my life (including my family) who give me genuine advice and encouragement during hard times.

Careers Domain

1. I will have achieved some success in my career.
2. I will have made a significant progress toward meeting my career goals.
3. I will have accomplished growth and advancement (e.g., the development and/or the improvement of my skills) in my career.
4. I will have earned the respect of coworkers and supervisors.
5. I will have a career that I find worthy of my time and effort.

Demographic Information

What is your age?

What year are you in college? Please choose one.

Freshman

Sophomore

Junior

Senior

Other (Please specify it)

What sex were you assigned at birth, meaning on your original birth certificate?

Male Female

What is your current gender identity? Please choose one of which the following terms best describes your gender identity.

Male

Female

Trans male/Trans man

Trans female/Trans woman

Genderqueer/Gender non-conforming

Different identity (Please specify it)

What is your nationality? Please choose one.

U.S. Citizen Non-U.S. Citizen

To which racial or ethnic group(s) do you most identify? Select <u>all</u> that apply.

American Indian/Native American

Asian American Asian/Pacific Islander

Black/African American

Hispanic/Latino(a)

White/Caucasian

Other (Please specify it)

Family type and constellation

Instruction: Please choose your family type and constellation based on the definitions below.

The term "Parent (or Parental figure)" in this study refers to a person who is fully or partially responsible for your well-being by blood ties (e.g., biological parent, grandparent, uncle, or aunt), marriage (e.g., stepparent), adoption (e.g., adoptive parent), or fictive kinship (e.g., godparent or other non-biological parental figure). For the specific purpose of this study, a mother (or a mother figure) is confined to a female/woman and a father (or a father figure) is confined to a male/man.

1. I have one father (or father figure) and one mother (or mother figure)
2. I have one father only (or one father figure only
3. I have one mother only (or one mother figure only)
4. I have two fathers (or two father figures)
5. I have two mothers (or two mother figures)