

THE INFLUENCE OF NEGATIVE LIFE EVENTS ON YOUNG ADULTS'
SUBJECTIVE AGING AND COMMUNICATION

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Abstract

This thesis examined the language use of young adults who may feel subjectively older as a result of experiencing negative life events (NLE). Previous research has found that experiencing NLE as a young adult can accelerate a person's subjective age (SA). Young adults who have experienced unfortunate circumstances in their lives may feel a discrepancy between their SA and their chronological age. Due to this discrepancy, young adults who feel older may communicate differently. I predicted that young adults' SA would have an influence on their language use. Results showed that the older young adults feel in terms of their emotional maturity and social skills, the fewer negative emotion words they use. Additionally, the older young adults feel in terms of their knowledge, the fewer first-person pronouns they use. Findings from this study reveals that feeling subjectively older has some influence on young adults' language use when discussing their NLE.

Keywords: negative life events, subjective age, LIWC, young adults

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Chapter 1. Introduction and Review of Literature

Previous research findings have revealed that experiencing hardships earlier in the life course can accelerate a young person's subjective age (e.g., the age that an individual feels). Johnson and Mollborn (2009) have discussed that adversities during childhood and adolescence are linked to feeling subjectively older in people's late teens and twenties. While feeling subjectively older is one consequence of undergoing adversity earlier in the life course, another consequence may also be the way a young person communicates. Specifically, experiencing difficulties during the early life stages may foster personal growth or psychological change, which may influence the way a young adult communicates. The purpose of the current study was to examine the subjective age and language use of young adults who have experienced negative life events.

In the following sections, I will discuss the influence experiencing negative life events may have on young adults' subjective age and communication. First, I will define "negative life events," then I will discuss different forms of experiencing negative life events. The different forms include: feeling a sense of threat (e.g., toward identity and/or future) and the "perceived benefit phenomenon." Second, I will discuss the meaning of subjective age and the conditions that may influence young adults' subjective age, including: a single acutely stressful life-changing event, cumulative adversities, and non-normative experiences. Third, I will discuss the influence negative life events and feeling subjectively older may have on young adults' communication. The different ways in which young adults may communicate include: first-person pronouns, emotion words, causal words, and insight words. Fourth, I will state my predictions and research question. I will then explain the design of my study and how I tested

my predictions. Lastly, I will discuss the results of my study and my interpretation of the findings.

Negative Life Events (NLE)

Negative life events (NLE) are adverse disruptions to an individual's daily life functioning. NLE are situations that typically have a negative influence on an individual's life as these life events have the potential to drastically change a person's daily life routines. Undergoing life-altering circumstances may result in intense strain, loss of self, and feelings of threat toward the future. Kleiber, Hutchinson, and Williams (2002) wrote about negative life events as "the experience of disruption and loss" (p. 220). These experiences could be the loss of a loved one, a disabling accident or a natural disaster, or unexpected unemployment. Similarly, Armstrong, Galligan, and Critchley (2011) described "stressful" or "negative life events" as a sudden change in events that are life-altering and significantly challenging to cope with. As stated by Armstrong and colleagues (2011) these negative life experiences may lead an individual to develop depressive symptoms, anxiety, and/or stress.

Researchers have used the term "negative life events" to discuss difficult or adverse situations. For example, Garnefski, Kraaij, and Spinhoven (2001) identified sexual abuse or war experiences (see also Solomon, Mikulincer, & Flum, 1988) as "negative life events," while Spinhoven et al. (2010) have considered childhood adversities to be NLE. Examples other researchers have used include: losing a loved one (e.g., death, disbanded dating relationship, divorce) (Gardner & Oswald, 2006; Lehman et al., 1993; Røsand et al., 2012), relationship difficulties (e.g., romantic relationship; Kraaij et al., 2003), physical/verbal abuse (Pitzner & Drummond, 1997), financial strain (Ahnquist & Wamala, 2011; Aneshensel, Rutter, & Lachenbruch, 1991; Attar, Guerra, & Tolan, 1994; Lantz et al., 2005; Lipton, 1994; Pudrovská et

al., 2005; Vinokur, Price, & Caplan, 1996; Williamson, Karney, & Bradbury, 2013), unemployment (Darity & Goldsmith, 1996; Kokko & Pulkkinen, 1998; Lucas, Clark, Georellis, & Diener, 2004; Paul & Moser, 2009; Wanberg, 2012), and physical impairment (Lucas, 2007; Thoits, 2010). Based on these examples, it is suggested that the individuals who underwent NLE experienced life-altering circumstances: their daily life routines may have been disrupted, shifted, or changed in unpleasant or unwanted ways. For example, experiencing parental divorce for children under 18 may be life-changing due to possible situations such as one parent's departure from the family home, sudden financial strain as a result of the divorce, or having to move into a different home. Any of these scenarios can be life-altering for the child as it is likely that he or she would have to change his or her daily routines in order to adapt to the aftermath of the divorce. Findings from a study examining the victims of a natural disaster accident revealed that the victims not only developed PTSD, but the PTSD also caused them to experience higher levels of adverse events following the accident, such as job loss and broken relationships (Maes, Mylle, Delmeire, & Janca, 2001). In the wake of this NLE, the victims' lives were not only changed by their PTSD, but certain behaviors or actions caused by the PTSD (e.g., unable to perform at work, projecting frustrations toward partner) also lead to more life-altering situations such as job loss and broken relationships. Both of these examples (divorce and natural disaster accident) illustrate possible NLE. It can also be suggested that experiencing these situations are adverse and disruptive for these individuals, as it also affects and potentially changes their lives in a negative manner. Therefore, based on the literature, NLE can generally be described as one or more of the following: disruptive, adverse, straining, stressful, and/or life-changing in a negative or unwanted way.

Perceived Threat

In certain circumstances, NLE may also evoke feelings of threat. Specifically, individuals undergoing NLE may experience feelings of threat toward their identity and daily life functioning (e.g., disabled limb caused by severe injury, drastic change in life routines due to death of a loved one, emotional scarring caused by a negative altercation with another person). In this literature, a threatening NLE may also be referred to as a *threatening situation*. A threatening situation can also cause individuals to feel vulnerable, or at-risk about their future and/or identity. For example, in Brugha, Bebbington, Tennant, and Hurry's (1985) study, participants were asked to make a list of situations that they feel are threatening life events. The researchers found that the following situations were reported to be "most threatening" or "most life-altering": failing an important exam, abortion or miscarriage, ending an engagement, financial difficulties; and civil lawsuits, such as divorce. Other examples of threatening NLE from Brugha et al.'s (1985) study also included: serious illness and injury (e.g., unable to walk following car accident, permanent physical impairment), death of close friend or relative, unemployment, and loss of important relationships. Based on findings from Brugha et al.'s (1985) study, it can be suggested that NLE are not only potentially harmful to one's daily life functioning, but can also result in life-altering conditions (life-changing circumstances), which can be perceived as threatening.

Experiencing NLE can also lead people to feel that their self-identity is threatened as a consequence of their negative experience. For example, unexpectedly losing a job position can lead one to feel a loss of identity and self-esteem (Kaufman, 1982). For a recently unemployed individual, the job could not only constitute an aspect of who he or she identifies him- or herself as; losing the position could also affect other elements of this person's life that essentially formed his or her identity (e.g., raising a family with financial strains, being unable to afford

mortgage loans, causing stress on spouse). Thus, due to this individual's recent unemployment, difficulties in adjusting or adapting to new life routines may trigger a sense of threat toward his or her identity.

Researchers have also stated that losing a romantic relationship (e.g., breakup, divorce) is considered one of the most distressing events adults can experience (Monroe, Rohde, Seeley, & Lewinsohn, 1999; Sbarra, 2006). Slotter and Gardner (2009) discussed that people tend to alter their self-concept (or self-identity) in order to include their romantic partner into their own lives. For example, some individuals may shift their usual routines around in order to spend more time with their partner, while others may begin to develop friendships within their partner's social circle. This behavior can also be referred to as integrating, as two people may essentially refer to themselves as a unit. Agnew, Van Lange, Rusbult, and Langston (1998) found that highly committed romantic partners are more likely to use first-person-plural pronouns in relationship-specific contexts (e.g., we, us, our, ours). The use of first-person-plural pronouns indicate that there appears to be an overlap between an individual's self-concept and their partner's self-concept.

Haber (1990, as cited by Slotter, Gardner, & Finkel, 2010) explained that when a relationship ends, aspects of the self may "be changed or lost" (p. 148). For example, after breaking up with a romantic partner, an individual may have difficulties engaging in certain tasks or activities by him-or herself without their ex-partner (e.g., grocery shopping, weekend festivities, sleeping without ex-partner). Slotter et al. (2010) explained that it is possible that a relationship breakup may lead individuals to feel uncertain and confused about who they are. In some cases, this uncertainty and confusion may cause individuals to not only feel that their identity is threatened by the loss of the relationship, but also their future. For example, when one

partner decides to move out after a romantic breakup, the other partner may feel uncertain about their identity for a large aspect of his or her life was integrated with the ex-partner (e.g., living together, spending weekends together, time spent during holidays). Slotter et al. (2010) found that in the event of a romantic relationship breakup, levels of uncertainty regarding one's self-concept are associated with the emotional distress suffered in the wake of a romantic relationship breakup. Thus, for some, a breakup may cause intense emotional stress; for others, it may trigger a sense of threat toward their identity.

A negative life event is often a matter of how an individual perceives his or her own experiences (Snyder, Ford, & Harris, 1987). For one person, experiencing rejection from a love interest in the romantic realm may lead to intense emotional and psychological scarring. Ballas and Dorling (2007) found that ending a relationship has a significantly negative impact on happiness. However, others may not respond this way after experiencing NLE. For example, another person may feel exceptionally fortunate to be alive in spite of a life-changing car accident that left the individual with a permanent physical impairment. This individual could perceive his or her NLE to be a "blessing in disguise" because the accident allowed this individual to have a "second chance" at life. Previous studies have investigated how people respond and adapt to adverse events.

Perceived Benefit Phenomenon

Researchers have recently begun to study how people may benefit from negative events. McMillen and Fisher (1998) suggested that people are able to benefit from negative events in different ways and these benefits may be a significant aspect of an individual's recovery. This notion is termed the "perceived benefit phenomenon," in which individuals who have experienced "traumatic" or negative events report benefit and growth as a consequence of their

involvement in the situation (McMillen, Smith & Fisher, 1997). Researchers who have explored the perceived benefits of a negative event discovered intriguing results. Affleck, Tennen, Croog, and Levine (1987) found that heart attack survivors were less likely to have another attack and more likely to be in healthy condition for eight years after the attack if they had perceived benefit within a few weeks following the incident. In another study, Affleck, Tennen, and Rowe (1991) found that mothers who perceived benefit (of their healthcare difficulties) after leaving intense neonatal care following their childbirth tend to have better moods and less distress 18 months later. Moreover, victims of “traumatic” technological (e.g., plane crash), natural (e.g., tornado), or criminal-related (e.g., mass shooting) events were less likely to experience post-traumatic stress disorder (PTSD) three years following the initial situation if they had perceived benefit just a few weeks after the incident (McMillen et al., 1997). Based on previous literature, it can be suggested that although experiencing NLE may be difficult, the consequences might not always be completely negative. Rather, it is possible that undergoing NLE may lead into positive personal growth and/or outcomes. One area of possible growth is in emotional maturity.

Subjective Age

Although chronological age serves as a convenient proxy for a person’s physical maturity, emotional development, membership in social categories and/or life stages, it is understood that chronological age itself is an “empty” variable (Settersten & Mayer, 1997). Chronological age (CA) is defined as the number of years an individual has lived, measured from date of birth to a designated time (e.g., present day, date of death). Neugarten and Hagestad (1976, p. 36) stated that CA is “meaningless unless there is knowledge of the particular culture and of the social meaning[s] attached to given chronological ages.” Another way of understanding an individual’s aging process is through subjective age.

Subjective age (SA) is the age that an individual feels and identifies for him- or herself. Galambos, Kolaric, Sears, and Maggs (1999), defined SA as “self perceived age” or “the age that one feels” (p. 310). Previous research on subjective age have examined how old or young an individual feels, and also which age group one identifies with regardless of his or her chronological age. Neugarten and Hagestad (1976, p. 36) stated that CA is often-considered as a “poor indicator” of one’s SA. Similarly, researchers have stated that, although CA is related to SA, the relationship between the two is not as strong as one would expect (Bultena & Powers, 1978; Markides & Boldt, 1983; Peters, 1971; Ward, 1977). Henderson, Goldsmith, and Flynn (1995) wrote that, “the discrepancy between chronological and subjective age can be explained using theories related to societal stigmatization, changes in lifestyle, catalytic events, and habit” (p. 448). For example, Bultena and Powers (1978, as cited by Henderson, Goldsmith, & Flynn, 1995) wrote that SA can change as a result of “catalytic disruptions in a person’s life” (p. 448) such as situations that involve poor health or issues with physical mobility. Similarly, findings from previous studies have suggested that demographic factors influence SA, such as education (Bultena & Powers, 1978; Markides & Boldt, 1983), marital status (Markides & Boldt, 1983), and socioeconomic status (Bengtson, Kasschau, & Ragan, 1977; Linn & Hunter, 1979). For instance, Markides and Boldt (1983) found that people in low socioeconomic statuses tend to “accept the onset of old age earlier than people from higher social classes” (p. 449). This finding is consistent with Rosow’s (1967) statement that, “differences in SA are a result of differential hardships, life events, rates of disability, and life expectancy” (p. 449). This suggests that experiencing NLE may have an influence on subjective aging.

Subjective Aging in Young Adults

The current literature suggests that young adults who have experienced NLE may feel older than their CA. Researchers have stated that certain life events may foster a sense of accelerated passage of time, which may likely lead an individual to reconstruct his or her age identity, as a result of the event or situation (Johnson, Berg, & Sirotzki, 2007; Logan, Ward, & Spitze, 1992; Westerhof & Barrett, 2005). This suggests that the distress and strains of undergoing NLE may have some influence on SA. Findings from Schafer and Shippee's (2010) study revealed that stress is closely linked to feeling subjectively older. Thus, young adults who have experienced NLE may feel a discrepancy between their SA and their CA.

Conditions Influencing SA

An individual's SA may be influenced by one or more of the following conditions: 1) undergoing a single acutely stressful life-changing event; 2) cumulative adversities (e.g., accumulation of NLE throughout one's life); or, 3) experiencing unpleasant situations that are considered non-normative for one's age. Any one of these conditions may affect one's SA. In the following, each condition will be discussed.

A single acutely stressful life-changing event. It is plausible that experiencing one stressful event may affect the overall structure of an individual's daily life functioning (e.g., daily routines). These circumstances typically change the course of an individual's life in an unwanted way, and may lead to intense strain and difficulties in coping with the incident. Examples of these events can be the death of a loved one, physical injury from natural disaster accident, financial strain, or unemployment.

As discussed, experiencing any of these stressful life-changing situations may accelerate one's SA. Schafer (2009) found that losing a mother during childhood increased SA by over

three years among adults. In the same study, findings also revealed that experiencing the death of a parent in adulthood had no effect on SA. Based on results from Schafer's (2009) study, it can be suggested that experiencing one stressful life-changing event can increase a person's SA. Thus, one way that SA can be increased is through experiencing a single acutely stressful life-changing event.

Cumulative adversities. Another way an individual might experience increases in SA is through cumulative adversities. Cumulative adversities are a series of difficult circumstances that accumulate over time. In cumulative adversities, stressful life events tend to recur in an individual's life.

Based on previous literature, examples of cumulative adversities can include circumstances such as familial turbulence during childhood, harsh neighborhood environments, and ongoing financial strains. Previous findings have shown that childhood adversities (e.g., rejection from parents) and growing up in harsh environments (e.g., "neighborhood instability") advances the sense of adulthood among individuals in their late teens to age 22 (Foster, Hagan, & Brooks-Gunn, 2008; Johnson & Mollborn, 2009). Further findings from Foster et al's., (2008) study also revealed that stressors from childhood hardships also trigger both early menarche and early identification as an adult. Similarly, in another study focused on the effects of turbulent familial issues, participants who have experienced higher levels of turbulence in their close relationships (e.g., spouse, family, children) reported advanced subjective aging at the end of ten years (Schafer & Shippee, 2010).

Non-normative experiences. Another factor that may influence one's SA is experiencing circumstances that are considered non-normative to an individual's CA. It is important to note that non age-normative experiences can lead to both positive and negative

outcomes. However, the current literature review will focus on the negative circumstances of experiencing non-age-normative life events.

People tend to subjectively evaluate their age according to particular “age markers” or age “reference points” (Montepare, 2009). Zupančič, Colnerič, and Horvat (2011) stated that SA is likely to “derive from a process of anchoring and adjusting one’s age where experiences of interpersonal events can make an individual’s age salient” (p. 137). Therefore, people’s ideas of “what should or shouldn’t” happen for one’s age can be a major contributing factor to the way we categorize certain life events as age-normative in relative to a particular life stage.

Age-structuring is referred to as the way society associates experiences, roles, and social status with age (Kertzer, 1989). Hogan (1978, as cited in Macmillan, 2005) stated that there is “clear statistical regularity in the patterning of social roles in the life course” (p. 11). The notion of age-norms is referenced to “statistical age norms” which Settersten (1998) describes as a “regularities in the timing of life course transitions, ‘optimal age norms’ that describe notions about the ‘best,’ ‘ideal,’ or ‘preferred ages at which to make particular transitions, as well as ‘prescriptive’ or ‘proscriptive’ age norms that describe when certain transitions should or should not occur” (p. 1376). Following Hogan’s (1978) claim, researchers have found evidence in ways our society has developed a set of values and beliefs according to the appropriate order and timing of social roles during an individual’s lifetime. Neugarten, Moore, and Lowe (1965) referred to age-appropriate norms as the “best” or “ideal” age to which an individual leaves the family home, finds employment, marries, or have children. In one of their previous works, the authors wrote that:

“Expectations regarding age-appropriate behavior form an elaborated and pervasive system of norms governing behavior and interaction, a network of expectations that is

embedded throughout the cultural fabric of adult life. There exists what might be called a prescriptive timetable for the ordering of major life events: a time in the life span when men and women are expected to marry, a time to raise children, a time to retire. This normative pattern is adhered to, more or less consistently, by most persons in society” (p. 711).

Further findings from Neugarten et al.’s., (1965) study revealed that 80 percent of the participant population agreed that different life events should occur within a “specific and well-defined” age parameter (e.g., 19-24 for the “best age for a woman to marry”). Events and social roles that occur outside of the normal age sequence are considered out of sequence and non-normative to certain stages of the life course (e.g., becoming teen parents, conceiving a child out of wedlock) (Macmillan, 2005).

Based on the literature, it can be suggested that undergoing life events outside of the age-norm could influence SA. Specifically, the current literature review suggests that young adults in these circumstances may feel subjectively older than their CA. For example, Osgood, Ruth, Eccles, Jacobs, and Barber (2005) found that individuals from less privileged backgrounds reported higher feelings of SA. One explanation for Osgood et al.’s (2005) finding is that living in a lower socioeconomic status may require or force individuals to adopt roles that are meant to be fulfilled by older individuals (e.g., taking over the parent role). These non-age-normative roles can range from working at a young age (e.g., in order to provide resources for the family) to joining crime-related groups (e.g., gang affiliation).

Another example of non-age-normative life experiences can be holding a high status job position (e.g., CEO, manager), which are typically filled by older individuals, at a young age. Responsibilities from holding a high status job position may lead a young individual to behave in

more mature ways than others in his or her age group. One possible behavior that could be affected is their communication toward other employees. Examples of these communicative behaviors may include maintaining a professional tone when confronting conflictual work-related situations, ordering employees to complete certain tasks in an authoritative manner, or using certain words to convey the individual's position.

The "looking-glass self" can help explain the influence experiencing non age-normative life events may have on SA. Yeung and Martin (2003) stated that the "looking-glass self" is a concept in which an individual's "self-perception is an internalization of how they are seen by others" (p. 846). In other words, the way that people tend to view their own identity is based on the way other people perceive them. For example, a young adult may see him-or herself as a mature individual because others have made comments toward this person about his or her mature behaviors.

As suggested by the looking glass self, for young adults, acting older may lead them to be perceived and treated as older, and therefore to feel older. Therefore, it is possible that the way one behaves externally (e.g., communicative behaviors) may influence how he or she feels internally, such as his or her SA. It is also possible that feeling subjectively older can cause a person to communicate differently. Overall, the current literature suggests that experiencing non age-normative life events as a young adult may influence his or her SA, and that this may be associated with not only feeling older than their CA, but to also communicate differently than their CA counterparts.

Different Aspects of Subjective Age

Researchers have defined SA as a multidimensional concept that consists of different domains, such as: look-age (e.g., "I look as if I were in my...") (Kastenbaum, Derbin, Sabatini,

& Artt, 1972), do-age (e.g., “My activities are like those of people who are in their...”) (Kastenbaum et al., 1972), and cognitive abilities (Barak, 1979, as cited in Barak, 1987). Similarly, Montepare (1996a; as cited in Montepare, 2009) discussed that SA is a multidimensional concept that can “capture nuances and distinctions in age identity” (p. 43). This may include factors that reflect psychological, physical, and social subjective age perceptions.

Based on previous literature, this study also views SA as a multidimensional construct. For this study, dimensions of SA include: physical state, wisdom, coping abilities, emotional maturity, and social skills. In the following sections, the different aspects of SA will be discussed.

Physical state. One dimension of SA is an individual’s perception of his or her physical body. In previous work, Montepare (1996a, as cited in Montepare, 2009) incorporated physical perceptions as one of the multidimensional aspects of SA. Montepare (2009) discussed that physical events can serve as a reference point or age marker that may influence SA. Physical events typically associated with age include: health-related events (e.g., heart attacks, strokes, memory loss), reproduction-related events (e.g., birth of a child, onset of menopause), and death-related events (e.g., passing of a friend, parent, or partner). Similarly, researchers have stated that physical cues may play a role in people’s age identities, or SA. For example, Hubley and Russell (2009) found that physical functioning predicted men’s SA (e.g., knee problems, decrease in stamina, unable to be as physically active as before). Whereas, for women, health satisfaction predicted their SA (e.g., related to slower metabolism, body weight, face wrinkles). These findings indicate that a person’s physical state is linked to his or her SA. Therefore, one aspect of SA is a person’s physical state and how he or she perceives their physical state.

Wisdom. Another dimension of SA is wisdom. Nolan and Scott (2009) discussed that wisdom is one aspect of aging. Similarly, Keller, Leventhal, and Larson (1989) found that aging is associated with increased wisdom and maturity. Wisdom is defined as, “knowledge in the fundamental pragmatics of life that permits exceptional insight, judgment, and advice and complex and uncertain matters” (Pasupathi, Staudinger, & Baltes, 2001, p. 351). Hall (2010, as cited in Nussbaum, 2012) discussed that wisdom is comprised of different aspects such as: the ability to regulate emotions, the ability to cope with adversity, and the ability to deal with uncertainty. Since wisdom is based on life experience, researchers have linked wisdom with age. More specifically, researchers have discussed that wisdom is more likely found in older adults than younger adults.

However, Gluck and Bluck (2013) discussed that the link between wisdom and chronological age is not a linear association, as some people do not develop wisdom with age. Instead, researchers have explained that wisdom can be gained through life experience (Gluck & Bluck, 2013; Pennebaker & Stone, 2003; Nussbaum, 2013). For example, Ardel (2005) argued that wisdom is cultivated by adversities and acute obstacles in people’s lives that may challenge their existing world views and can lead them to expand their perspectives on life. Therefore, chronological age may not always be a determinant of wisdom (Staudinger, Smith, & Baltes, 1992). But rather, life experience, wisdom, and SA are all associated with one another. Specifically, individuals who have grown or learned from their experiences may become wiser. For example, Wiener, Weaver, Bell, and Sansom-Daly (2015) discussed that adolescent and young adult palliative cancer patients may “mature faster than anticipated or reveal a premature wisdom” (p. 3). It can be assumed that life as a young cancer patient can lead one to face difficult experiences (e.g., undergoing chemotherapy, acknowledging their death, grief, physical

pain). These life experiences that young cancer patients faced were likely associated with their increased maturity and wisdom. Overall, the more experience a person encounters, the more likely it is that he or she may feel older and gain a better understanding of life. This sense of feeling older and having a better understanding of life can also be associated with wisdom. Therefore, another dimension of SA is wisdom.

Knowledge. Knowledge can be understood as facts, information, and skills a person can acquire through education and/or life experience. It can be suggested that the more life experience a person has, the more knowledge he or she may gain. Having knowledge, or being knowledgeable, can also lead people to feel older. Therefore, another dimension of SA is knowledge.

Coping abilities. Some scholars would consider coping abilities as a part of wisdom. Wisdom, as previously discussed, is one of the dimensions of SA. Hall (2010, as cited in Nussbaum, 2013) stated that one out of the eight pillars of wisdom is in a person's ability to cope with adversity. The ability to cope is associated with life experience and SA. Life experience allows people the opportunity to learn and grow from their circumstances; the more life experience a person faces, the more opportunities he or she may have in learning how to cope with adversities or difficult situations. For example, a young adult who has faced NLE in his or her life will likely develop an understanding of the "fundamental pragmatics of life" as a result of his or her life experiences. Therefore, an individual's ability to cope with adversity or life circumstances is another dimension of SA.

Emotional maturity and social skills. Emotional maturity and social skills are also dimensions of SA. Emotional maturity is defined as, "the capacity to control impulses, the adoption of a broad and unselfish perspective, and acceptance of responsibility for the

consequences of one's actions" (Mayseless & Scharf, 2003, p. 6). Galambos et al. (1999) found that older SA in young adults is an indication of the individual's self-perception of maturity. Examples of emotional maturity may include: being able to regulate one's emotions, taking ownership of one's mistakes, thinking about how one's actions may affect others, and behaving appropriately in certain social settings. Accordingly, a person who perceives him- or herself as emotionally mature and/or behaves in a way that exhibits emotional maturity may likely identify as subjectively older. Therefore, emotional maturity can be a dimension of SA.

Some researchers would consider social skills as part of emotional maturity. Galambos, Turner, and Tilton-Weaver (2005) discussed the concept called *psychosocial maturity*, which is defined as "individuals' general level of adaptive functioning and socioemotional competence" (p. 542). The authors explained that psychosocial maturity is associated with a person's ability to be independent, communication skills and ability to interact well with others, and capacity for social responsibility. It can be suggested that psychosocial maturity and emotional maturity are similar concepts. For example, a person's ability to adapt well in social settings and self-awareness can be important indicators of maturity. The ability to be adaptable, self-aware, and capable of communicating with others in social settings can be associated with feeling older. Galambos et al. (2005) found that psychosocial maturity was a significant predictor of SA. Findings from Galambos et al.'s (2005) study revealed that in young adults, higher maturity is related to feeling older. Therefore, both emotional maturity and social skills are also aspects of the multidimensional concept of SA.

Influence of SA on Young Adults' Communication

Previous literature has discussed that young and older adults are likely to communicate differently due to their age difference. In this work, researchers have used CA to discuss the

differences in the way people communicate. For example, Pasupathi and Carstensen (2003) found that older adults are more likely than young adults to focus on the positive when discussing a past negative event. Similarly, Pennebaker and Stone (2003) discussed that older age is associated with decreased negative emotion word use and increased positive emotion word use. The same study also revealed that older adults used positive emotion words at almost twice the rate of younger adults. These findings suggest that there are differences in communication between people in different age groups, as measured by CA. However, existing literature has assumed that people's CA is equal to their SA. For young adults who have experienced NLE and feel subjectively older, there may be a discrepancy between their CA and SA. Thus, it is possible that young adults who have experienced NLE may communicate differently as a consequence of this discrepancy.

The current literature review suggests that the age that an individual feels may be reflected in their communicative behaviors. Tausczik and Pennebaker (2010) stated that language is a way for people to process, interpret, and connect their thoughts. As discussed, previous researchers have categorized people in terms of their CA. Past studies have not focused on the influence life experience may have on a person's subjective age. Finally, previous literature have not focused on the influence NLE and SA may have on a person's communication. This thesis seeks to bridge a gap in the existing literature by examining the way young people with older SA communicate. I propose that young adults who feel subjectively older may engage in communicative behaviors resembling, or similar to, those of older adults. The following sections will discuss the different categories of communicative behaviors that may be associated with older SA in young adults.

Cognitive Restructuring

Cognitive restructuring is a thinking process in which people restructure their thoughts about a past negative experience for the purpose of gaining a new perspective on their situation (Steigerwald and Stone, 1999). One example of cognitive restructuring is when people restructure their negative thoughts about a past negative experience by reorganizing their thought process with positive thinking. Patterson and Welfel (1994) discussed that negative thinking is disruptive to the coping process and cognitive restructuring helps people effectively and positively think about life events, allowing the individual to move forward and live a more fulfilling life. Similarly, Steigerwald and Stone (1999) discussed that by focusing on the positive, people can have more control over their negative emotions and begin to experience positive changes after a NLE. Findings from previous studies have shown that cognitive restructuring was effective for people dealing with a variety of personal adversities, such as recovering alcoholics (Steigerwald & Stone, 1999), people who have suffered from depression (Beck, 1976), people who have attempted suicide (Patsiokas & Clum, 1985), and people with relationship problems (Huber & Milstein, 1985). Overall, cognitive restructuring works to reorganize negative thoughts about a NLE, in which can lead to positive life changes and/or outcomes.

Cognitive restructuring is also linked to language or word use (Pennebaker, Mayne, & Francis, 1997). Pennebaker, Colder, and Sharp (1990) found that individuals who have experienced a traumatic event or NLE tend to engage in cognitive restructuring which can be seen in the content of their writing. Participants reported that writing about the incident was beneficial in helping them “gain insight into what had happened” (p. 529). Linguistic markers of cognitive restructuring included an increase in words related to possible causes of the negative event, and insight linked to those experiences or events (Pennebaker et al., 1997). Further,

Pennebaker and colleagues (1997) found that using negative emotion words can lead to improved health outcomes. The researchers suggested that, in order for people to “come to terms” and begin making positive life changes, using negative emotion words is a part of the process in working through the NLE. Since using negative emotion words are found to be linked to improved health outcomes, it is likely that using negative emotion words is a part of the process through which people reflect and make sense of a past negative experience. Reflecting and sense-making can likely help with the coping process after the NLE, including adapting to new life routines. For example, while reflecting on a NLE, an individual may use negative words in his or her writing as a way to understand why the NLE was difficult to experience. It can be suggested that reflecting and sense-making as a way of coping can help facilitate personal growth and lead to positive life changes.

Emotion Word Use

As people continue to cope with their NLE, it is may be plausible that the use of negative emotion words would decrease, and in turn, positive words would increase. While using negative emotion words is part of the coping process, positive word use likely suggests that an individual is experiencing growth from a NLE. Research has shown that as people age, the more likely they are to focus on the positive than the negative (Pasupathi & Carstensen, 2003). Specifically in the context of communication, previous study findings have shown that as people become older, they tend to use more positive emotion words than negative emotion words. Pennebaker and Stone (2003) found that “with increasing age, people tend to use more positive and fewer negative affect words, more future-tense and less past-tense, and fewer self-references (e.g., ‘I’ pronouns)” (p. 291). Related to this finding, researchers have suggested that as people age, they tend to process emotional life experiences differently. Pasupathi and Carstensen (2003)

explained that older adults tend to use more positive talk even when discussing a past negative event because as time goes on, memory for the past becomes increasingly positive and decreasingly negative. Pasupathi (2001) discussed that in older adults, recounting past negative experiences tend to evoke feelings of “pride, relief, and gratitude” (p. 341).

I predicted that it is possible for young adults to retell their negative experiences in similar ways as older adults. For instance, it is possible that young adults with older SA may use positive words to express their past experiences in their writing. Therefore, I hypothesized that young adults with older SA are likely to engage in more positive, and less negative, word use.

H1: Positive emotion word use is positively associated with subjective age.

H2: Negative emotion word use is negatively associated with subjective age.

Insight and Causal Word Use

Pennebaker and King (1999) suggest that using certain words can suggest how individuals are processing their past life experiences. Words that are suggestive of learning and understanding, are termed *insight words*. Another, related category is *causal words*, which are words that suggests an individual is attempting to explain causes and effects. In describing a past event, the use of insight words (e.g., think, realize, know, consider) and causal words (e.g., because, reason, why, effect) suggest that an individual is actively processing the situation (Tausczik & Pennebaker, 2010). Accordingly, Pennebaker et al. (1997) found that increased use of insight and causal words led to significant health improvements. Based on this finding, Tausczik and Pennebaker (2010) stated that increasing use of insight and causal words may be related to reconstrual statements (e.g., cognitive restructuring). Using reconstrual statements is a way in which individuals attempt to interpret and process a past event through *sense-making*. Sense-making is a way for individuals to understand and make sense of a past event. Tausczik

and Pennebaker's (2010) finding is closely related to results from a study by Kross and Ayduk's (2011), in which the researchers discovered that the combination of reconstrual statements and discussing past traumatic events has shown to have the "best health outcomes" (p. 36). Based on these findings, I predicted that the use of insight or causal words could be linked to a young adult's older SA.

H3: Insight word use is positively associated with subjective age.

H4: Causal word use is positively associated with subjective age.

RQ: Do young adults with older SA than their CA use more insight and/or causal words than young adults who feel their CA is equal to their SA?

First-Person Pronoun Use

The use of "I" pronouns have been linked to depression, suicide, and high levels of self-focus (Rude, Gortner, & Pennebaker 2004; Stirman & Pennebaker, 2001; Stone & Pennebaker, 2002). Researchers have discussed that using first-person singular pronouns indicate an individual's attachment toward his or her topic, which can include emotional topics (e.g., talking about past NLE). However, Pennebaker and Stone (2003) found that as people age, the use of first-person pronouns tend to decrease. Researchers have suggested that one explanation may be that as people age, they are likely to detach themselves from emotional topics. This may also reflect an individual's sense of greater independence and focus toward the external world. Therefore, young adults with older SA may use fewer first-person singular pronouns than individuals of their age with little to no SA and CA discrepancy.

H5: First-person pronoun use is negatively associated with subjective age.

Chapter 2. Method

Participants

Ninety-nine undergraduate students from the University of Hawaii at Manoa participated in this study. All participants were recruited through the Department of Communicology's SONA website. Four participants were excluded from the study as they did not meet the age criteria for this study. The final sample size was therefore ninety-five participants ($n = 95$). In this study, 17.9% of participants identified as male ($n = 17$) and 82% identified as female ($n = 78$). In the final sample, participants were between the ages of 18 to 28 ($M = 20.39$, $SD = 2.21$). For ethnicity, 27.4% identified as Caucasian ($n = 26$), 3.2% identified as Hispanic or Latino ($n = 3$), 45.3% identified as Asian or Asian-American ($n = 43$), 1% reported "other," and 23.2% did not report their ethnicity ($n = 22$). Participants completed the entire study online through the Qualtrics website.

Procedure and Materials

Negative life events (NLE). The study began by presenting to participants the following definition of NLE:

Negative life events (NLE) are situations that impacted your life in a negative way at the time of occurrence. Experiencing NLE can cause or lead to significant adversity, hardship, and/or loss in your life. NLE might also be disruptive to your life. For example, your negative experience may have caused you to abruptly change how you lived your life in ways that you didn't want it to. Experiencing NLE can also make you feel threatened at the time of occurrence. For example, you might have felt like your future was at stake because of how much you could have lost as a result of what had happened. You might also felt like you had lost a sense of who you were. An NLE could

also be **unexpected**. For example, your negative experience may have happened all of a sudden in ways that you never would have expected to face or deal with.

After explaining the definition of NLE, participants were asked to reflect on a past NLE in their own lives. Instructions were written as: *“Think about a negative life event or experience from your past that you feel like you have worked through or have dealt with.”* Next, participants were provided with two open-ended writing prompts. The first prompted the participants to describe their NLE: *“Describe a negative life event or experience from your past that you feel that you have worked through or have dealt with.”* Some examples of responses from this writing prompt included: parental divorce, physical injury, death of a loved one, military experience, physical illness, difficulties in romantic relationships, and childhood adversity.

The second prompted the participants to write out what they would say to someone they care about who experienced the same NLE as the participant: *“If the same life event or experience happened to someone close to you (e.g., family, friend, significant other), what would you say to them (e.g., advice, words of wisdom)?”* A separate text box for each prompt were provided for this writing portion. Some examples of participant responses included: *“be a strong person, and be independent as much as possible,” “things get better with time,” “take the time you need to recover,” “think positive and try to think of all the good things that have happened to you,”* and *“talk about it.”*

After completing the open-ended writing prompts portion, participants were asked to rate the extent to which they agree or disagree with the following statement about their NLE on a 7-point scale (*strongly disagree to strongly agree*): *“Looking back, I feel like I have grown from this NLE in a positive way.”* Overall, majority of participants’ reported responses leaned toward *strongly agree* ($M = 6.10, SD = 0.85$).

Life experiences survey (LES). To gauge the magnitude of the NLE's negativity, a modified subscale from The Life Experiences Survey (LES) were used. The LES is a 50-item self-report instrument that is used to allow respondents to indicate events they have experienced in their recent past, as well as individualized ratings of the impact of the event (Sarason et al., 1978). The format of the LES required participants to rate the desirability and impact of events they have experienced by asking the extent to which the event affected their lives *at the time of the occurrence*. I used a modified version of an item from LES for this study. The instructions were written as: "*The following question will ask you to rate the negative life event you experienced on a 7-point scale ranging from "extremely negative" (-3) to "extremely positive" (+3).*" Then, the item assessed how participants viewed their NLE at the time it had occurred: "*Reflecting back, to what extent did your negative life event or experience affect your life at the time of the occurrence? (M = -1.18, SD = 2.08).*"

Subjective age. The next portion of the study asked participants to report their "feel-age," or subjective age. To assess the participants' overall SA, I used one item from Kastenbaum, Derbin, Sabatini, and Artt's (1972) subjective age scale. Participants were asked to report their overall SA as response to the question: "*In years, how old do you feel you are?*" Overall, participants' SA ($M = 23.43$, $SD = 6.65$) were slightly older than their CA ($M = 20.39$, $SD = 2.21$).

Afterward, the different forms of subjective age were assessed by asking participants to respond to questions focusing on dimensions of SA (i.e., "In terms of _____, how old do you feel?"). The different dimensions of SA chosen for this study were: physical state ($M = 24.82$, $SD = 9.38$), emotional maturity ($M = 28.39$, $SD = 10.46$), knowledge ($M = 24.30$, $SD = 10.96$), coping abilities ($M = 27.60$, $SD = 12.20$) social skills ($M = 25.73$, $SD = 13.41$), and wisdom ($M =$

26.54, $SD = 11.31$). For each SA dimension, participants were asked to report their SA by using a slider that ranged from age 0 to 99. Examples of these questions include: “In terms of emotional maturity, how old do you feel?”, “In terms of coping abilities, how old do you feel?”, and “In terms of wisdom, how old do you feel?”

Next, participants were asked to compare their subjective age with others of their age group, using one item from Barak’s (1979) measure of subjective age: *“If you compare yourself to people your age, how old do you feel in general? There are five possible answer to this question ranging from “much older” (1) to “much younger” (5).* Overall, participants felt older than their peers ($M = 2.34$, $SD = 0.80$).

The final portion of the study records participants’ demographic information, which included age, gender, ethnicity, religion, and relationship status.

Data Analysis

LIWC. Responses to the open-ended questions were analyzed with the computerized text analysis program Linguistic Inquiry and Word Count (LIWC; Francis & Pennebaker, 1993; Pennebaker & Francis, 1996). LIWC searches different text files, categorizes words, and computes the percentage of different categories of words. LIWC searches for over 2300 words within any given text file and categorizes words. Using LIWC’s default dictionary, the present study will examine the following dimensions: first-person pronouns, positive and negative emotion words, causal words, and insight words (for a description of each, see Table 1).

Chapter 3. Results

Pearson's product-moment correlations were used to test all hypotheses. Two-tailed tests were conducted with the p -value of .05. Correlations between all study variables are presented in Tables 2 and 3. For the research question (RQ), a one-way analyses of variance (ANOVA) was used to test whether people who feel older would use more insight and causal words than people who feel about the same age as their CA or who feel younger.

Hypothesis 1: Positive Emotion Word Use

Hypothesis 1 (H1) predicted that positive emotion word use would be positively associated with SA. For writing prompt 1 (WP1), participants were asked to write about an NLE that they had dealt with or have worked through. Results for WP1 revealed that there was not a significant correlation between positive emotion word use and SA, $r(95) = -.180, p = .08$. The results also indicated that positive emotion word use did not have a significant correlation with any of the SA dimensions: physical state, $r(95) = -.150, p = .147$; emotional maturity, $r(95) = -.096, p = .356$; knowledge, $r(94) = .015, p = .885$; coping abilities, $r(94) = -.122, p = .243$; social skills, $r(95) = -.081, p = .435$; and wisdom, $r(95) = .031, p = .768$.

For writing prompt 2 (WP2), participants were asked to write out what they would say if someone close to them experienced the same NLE (e.g., advice, words of wisdom). Results for WP2 revealed that there was not a significant correlation between positive emotion word use and SA, $r(95) = .025, p = .809$. The results also indicated that positive emotion word did not have a significant correlation with any of the SA dimensions: physical state, $r(95) = -.023, p = .825$; emotional maturity, $r(95) = .000, p = .997$; knowledge, $r(94) = .015, p = .885$; coping abilities, $r(94) = -.101, p = .334$; social skills, $r(95) = .051, p = .626$; and wisdom, $r(95) = -.038, p = .715$. H1 was not supported.

Hypothesis 2: Negative Emotion Word Use

Hypothesis 2 (H2) predicted that negative emotion word use would be negatively associated with SA. Results for WP1 revealed that there was not a significant correlation between negative emotion word use and SA, $r(95) = .101, p = .329$. The results also indicated that there was not a significant correlation between negative emotion word use and any of the SA dimensions: physical state, $r(95) = -.071, p = .493$; emotional maturity, $r(95) = .036, p = .727$; knowledge, $r(94) = .088, p = .400$; coping abilities, $r(94) = -.032, p = .759$; social skills, $r(95) = .033, p = .748$; and wisdom, $r(95) = .179, p = .083$.

Results for WP2 revealed that there was not a significant correlation between negative emotion word use and SA, $r(95) = -.065, p = .530$. The results also indicated that negative emotion word use did not have a significant correlation with physical state $r(95) = .021, p = .838$; knowledge, $r(94) = -.098, p = .347$; and coping abilities, $r(94) = -.088, p = .396$. However, there was a significant negative correlation with emotional maturity, $r(95) = -.269, p = .008$; and social skills, $r(95) = -.207, p = .044$. The older participants felt in terms of their emotional maturity, the less negative emotion words they used. Also, the older participants' feel based on their social skills, the less negative emotion words they used. Thus, H2 was partially supported.

Hypothesis 3: Insight Word Use

Hypothesis 3 (H3) predicted that insight word use would be positively associated with SA. Results for WP1 revealed that there was not a significant correlation between insight word use and SA, $r(95) = .112, p = .279$. The results also indicated that insight word use did not have a significant correlation with any of the SA dimensions: physical state, $r(95) = -.074, p = .479$;

emotional maturity, $r(95) = .015, p = .888$; knowledge, $r(94) = -.005, p = .965$; coping abilities, $r(94) = .146, p = .161$; social skills, $r(95) = .028, p = .789$; and wisdom, $r(95) = .035, p = .736$.

Results for WP2 revealed that there was not significant correlation between insight word use and SA, $r(95) = .024, p = .820$. The results also indicated that insight word use did not have a significant correlation with any of the SA dimensions: physical state, $r(95) = -.074, p = .474$; emotional maturity, $r(95) = .006, p = .958$; knowledge, $r(94) = -.055, p = .601$; coping abilities, $r(94) = .029, p = .783$; social skills, $r(95) = -.096, p = .353$; and wisdom, $r(95) = .063, p = .543$. H3 was not supported.

Hypothesis 4: Causal Word Use

Hypothesis 4 (H4) predicted that causal word use would be positively associated with SA. Results for WP1 revealed that there was not a significant correlation between causal word use and SA, $r(95) = .000, p = .997$. The results also indicated that causal word use did not a significant correlation with any of the SA dimensions: physical state, $r(95) = -.083, p = .426$; emotional maturity, $r(95) = -.109, p = .294$; knowledge, $r(94) = -.036, p = .731$; coping abilities, $r(94) = .022, p = .833$; social skills, $r(95) = -.092, p = .377$; and wisdom, $r(95) = -.074, p = .478$.

Results for WP2 revealed that there was not a significant correlation between causal word use and SA, $r(95) = -.034, p = .744$. The results also indicated that causal word use did not have a significant correlation with any of the SA dimensions: physical state, $r(95) = -.129, p = .211$; emotional maturity, $r(95) = .075, p = .473$; knowledge, $r(94) = -.031, p = .769$; coping abilities, $r(94) = .079, p = .452$; social skills, $r(95) = .01, p = .924$; and wisdom, $r(95) = .04, p = .703$. H4 was not supported.

Hypothesis 5: First-Person Pronoun Use

Hypothesis 5 (H5) predicted that first-person pronoun use would be negatively associated with SA. Results for WP1 revealed that there was not a significant correlation between first-person pronoun use and SA, $r(95) = .097, p = .351$. The results also indicated that first-person pronoun use did not have a significant correlation with any of the SA dimensions: physical state, $r(95) = .105, p = .310$; emotional maturity, $r(95) = .012, p = .909$; knowledge, $r(94) = -.036, p = .732$; coping abilities, $r(94) = .046, p = .661$; social skills, $r(95) = -.101, p = .330$; and wisdom, $r(95) = -.024, p = .814$.

In addition to analyzing first-person pronoun use, I also tested the relationship between the use of the word “I” (only) and SA. Results revealed that there was not a significant correlation between the use of “I” and SA, $r(95) = -.039, p = .710$. The results also indicated that the use of “I,” specifically, had no significant correlation with any of the SA dimensions: physical state, $r(95) = -.001, p = .995$; emotional maturity, $r(95) = -.113, p = .278$; knowledge, $r(94) = -.051, p = .629$; coping abilities, $r(94) = -.120, p = .249$; social skills, $r(95) = .117, p = .258$; and wisdom, $r(95) = -.097, p = .350$.

Results for WP2 revealed that there was not a significant correlation between first-person pronoun use and SA, $r(95) = -.128, p = .218$. The results also indicated that first-person pronoun use had did not have a significant correlation with physical state, $r(95) = .020, p = .851$; emotional maturity, $r(95) = -.132, p = .204$; coping abilities, $r(94) = .015, p = .884$; social skills, $r(95) = -.189, p = .066$; and wisdom, $r(95) = -.199, p = .053$. However, there was a significant negative correlation between first-person pronoun use and knowledge as a dimensions SA, $r(94) = -.213, p = .039$. The older participants felt in terms of their knowledge, the fewer first-person pronouns they used.

Additionally, in WP2, there was not a significant correlation between the use of “I” and SA, $r(95) = -.007, p = .950$. The results also indicated that the use of first-person pronoun word “I,” specifically, did not have a significant correlation with any of the SA dimensions: physical state, $r(95) = -.048, p = .646$; emotional maturity, $r(95) = .035, p = .733$; knowledge, $r(94) = -.059, p = .570$; coping abilities, $r(94) = .048, p = .646$; social skills, $r(95) = -.022, p = .829$; and wisdom, $r(95) = -.04, p = .699$. Overall, because there was a significant negative correlation between first-person pronoun use and knowledge as a dimension of SA, H5 was partially supported.

Research Question

For WP1, results of the ANOVA failed to show an overall significant effect for insight word use, $F(2, 94) = .391, p = .678$. Participants who reported feeling older ($M = 2.64, SD = 2.71$) did not use more insight words than participants who reported feeling about the same ($M = 2.85, SD = 3.15$) or participants who reported feeling younger ($M = 1.95, SD = 0.67$) as their chronological age. For WP2, results of the analysis also failed to show an overall significant effect for insight word use, $F(2, 94) = .229, p = .796$. Participants who reported feeling older ($M = 3.51, SD = 3.71$) did not use more insight words than participants who reported feeling about the same age ($M = 3.07, SD = 2.33$) or participants who reported feeling younger ($M = 2.95, SD = 2.24$).

Results of the analysis for WP1 also failed to show an overall significant effect for causal word use $F(2, 94) = .847, p = .432$. Participants who reported feeling older ($M = 1.75, SD = 1.63$) did not use more insight words than participants who reported feeling about the same age ($M = 1.28, SD = 1.05$) and participants who reported feeling younger ($M = 1.63, SD = .78$). For WP2, results of the analysis also failed to show an overall significant effect for causal word use, $F(2,$

94) = .951, $p = .390$. Participants who reported feeling older ($M = 1.93$ $SD = 2.35$) did not use more insight words than participants who reported feeling about the same age ($M = 2.41$, $SD = 3.35$) and participants who reported feeling younger ($M = 3.08$, $SD = 2.48$). Overall, participants who reported feeling older did not use more insight and causal words than participants who reported feeling about the same age and participants who reported feeling younger.

Chapter 4. Discussion

While previous literature has explored the influence NLE have on young adults SA, far fewer studies have examined the connection between SA and language use. Thus, the purpose of this investigation was to analyze the connection between SA and language use of young adults who have experienced NLE. Overall, three correlations were found between SA and language use in WP2. The first finding revealed a significant negative correlation between emotional maturity as a dimension of SA and the use of negative emotion words. The second finding showed a significant negative correlation between social skills as a dimension of SA and the use of negative emotion words. The third finding revealed a significant negative correlation between knowledge as a dimension of SA and the use of first-person pronouns.

Emotional Maturity

Results showed that there was a significant negative correlation between emotional maturity as a dimension of SA and the use of negative emotion words. In other words, the older young adults felt in terms of their emotional maturity, the fewer negative emotion words they used. One explanation for this finding may be the possible association between emotional maturity and emotion regulation. Emotional maturity is defined as, “the capacity to control impulses, the adoption of a broad and unselfish perspective, and acceptance of responsibility for the consequences of one’s actions” (Maysless & Scharf, 2003, p. 6). Based on this definition, it can be suggested that part of being emotionally mature is the ability to regulate emotions. The older young adults feel in terms of their emotional maturity, the more capable they are likely to be in controlling and working through their emotions. This may include the ability to control one’s negative thoughts, words, or behaviors. Results indicated that the older people felt in terms of their emotional maturity, the fewer negative emotion words they used. Therefore, one

explanation for these results is that the older young adults feel in terms of their emotional maturity, the more they are able to control their impulses and emotions, which can be reflected in their language use.

Social Skills

Results indicated that there was a significant negative correlation between social skills as a dimension of SA and use of negative emotion words. This means that the older a young adult felt in terms of his or her social skills, the fewer negative emotion words he or she used. As people become older, they have more opportunities and life experience to build social skills in different social situations. Such social skills might include knowing when to make the appropriate choices about words to use in a social setting. Emotion regulation and self-control are also important aspects of knowing how to interact appropriately in social settings (i.e., social skills).

Johnson and Johnson (1990) claimed that social skills are associated with building and maintaining positive relationships; they also wrote that an individual's quality of life as an adult is associated with his or her social skills. Building off of Johnson and Johnson's (1990) claim, another explanation for my finding is that the older people subjectively become, the more aware they become of what others prefer or do not prefer in conversations. This awareness can lead people to exert more control over the words and language they choose to use in social settings. It is possible that as a person becomes subjectively older in terms of social skills, he or she may become more aware that using negative emotion words can result in bad social effects. Therefore, people may use fewer negative emotion words in social settings as a way to maintain and develop better relationships.

Knowledge

Results indicated that there was a significant negative correlation between knowledge as a dimension of SA and first-person pronoun use. The older participants felt in terms of their knowledge, the fewer first-person pronouns they used. One explanation for this finding might be the nature of WP2 and the task that was asked of the participants. In WP2, participants were asked to write what they would say to a loved one if their loved one was experiencing the same NLE. The nature of WP2 creates an opportunity for participants to reflect on their experiences in a way where they step out of their situation and think about what they have learned from their NLE. Further, WP2 requires an extra step for the participants in terms of thinking about what they may have gained from their NLE and how they can use their own experiences to help a loved one.

Life experiences such as an NLE may give people the opportunity to learn, grow, and gain knowledge. Such personal growth and knowledge gain may include learning how to become less-self-focused and more open to different perspectives of a situation. Results showed that the older people felt in terms of their knowledge, the fewer first-person pronouns they used. One explanation is that with more knowledge, people become less self-focused. Although there are many possible ways that having knowledge can affect language, being less self-focused is one of them. Further, having more knowledge may help place people in a position where they are likely to think outside of themselves. This sense of being less-self-focused can also be reflected in a person's language use.

WP1 and WP2

The current study consisted of two different writing prompts. Significant correlations between SA and language use were only found in WP2. One possible explanation for this may be

the nature of WP1 and WP2. In WP1, participants were asked to write about a time in their lives that was painful and/or negative. Writing about an NLE can bring forth negative emotion words as negativity is an inherent quality of an NLE. In WP2, participants were asked to write what they would say to a loved one if their loved one was experiencing the same NLE. There was a change in perspective between WP1 and WP2. The task given to participants in WP1 was to simply write about their NLE. If people have grown socially, emotionally, or in their knowledge, it is more likely that people will reflect their growth through their language use in WP2 than in WP1. In other words, changing the perspective on a situation may also change the way a person communicates about an NLE. Therefore, the nature of the two different writing prompts may help to explain why there was significant correlations between SA and language in WP2 and not WP1.

NLE and SA

Results also showed that the association between experiencing positive growth from NLE and SA were non-significant. Results for the association between the magnitude of participants' NLE at the time of occurrence and their SA were also non-significant. These findings were not consistent with the guiding assumptions made for this study.

One explanation for these non-significant findings may be that participants had a small window of time to fully understand their NLE, which may have affected their SA. It may be possible that with more time and life experience, young adults may have a better understanding of how their NLE may impact their personal growth and SA. Also, with more time and life experience, young adults may become more perceptive and aware of any positive growth or increase in SA they may experience as a result of having a better understanding of their NLE.

Since this study did not classify NLEs by their content, it is also possible that the type of NLE matters. Therefore, one direction for future studies should seek to examine whether certain NLE (e.g., car accident, childhood abuse) may have more influence on a person's SA than other NLE (e.g., stubbed toe, losing a prized possession). For example, experiencing emotional abuse in the past may have more influence on a person's SA than experiencing a physical injury. In the next section, limitations of this study and directions for future research will be discussed.

Limitations and Directions for Future Research

Several limitations to this study should be considered when interpreting its results. First, the sample in this study are all college students below the age of 30; young adults who are not enrolled in college are excluded from this investigation. It is possible that the results of this study would be different if there were a larger sample that included young adults who are not enrolled in college. For example, the language use (e.g., word use, sentence structure, grammar) of college students and non-college students may differ due to the college students' level of education. Thus, it is possible that excluding young adults who are not enrolled in college may have influenced the results of this study.

Second, there was a gender imbalance in the sample. Participants were 82% females and 17.9% males. Since most of the participants were female, a majority of the data that were analyzed came from female participants. It is possible that the results reflect relationships between SA and language primarily for women, rather than young adults as a whole. A gender-balanced sample could have provided a more reliable understanding of the connection between SA and language use in young adults as a result of their NLE. Therefore, the gender imbalance in the sample may have influenced the results of this study.

Third, the measure of the of SA (e.g., physical body, emotional maturity, wisdom, etc.) in this study has not been used in previous studies. The content of this study's SA measure was based on Kastenbaum et al.'s (1972) previous work. However, I created my own SA measure in order to investigate how certain aspects of a person's SA may influence how he or she may communicate as a result of his or her NLE. Prior to the current study, this SA measure has not been used before. Therefore, more research and testing of this measure is needed to confirm its validity.

The fourth limitation concerns the window of time participants have had to cope and work through their NLE. Compared to older adults, young adults have had a shorter window of time to deal with their past negative experiences. Since coping and dealing with negative life experiences can take time, it is possible that the language use of young adults will continue to change as they become older. Thus, a future direction for this study can be a longitudinal investigation that examines the connection between SA and language use in people across the lifespan.

Conclusion

Overall, the current study found evidence that feeling subjectively older can have an influence on young adults' language use when discussing their NLE. Results from this study revealed that as SA in terms of emotional maturity and social skills increased, the use of negative emotion words decreased. Additionally, as SA in terms of knowledge increased, the use of first-person pronouns decreased. These findings provided support for this study's prediction that feeling subjectively older has some influence on young adults' language use when talking about their past negative experiences. Future research in this area may provide more insight on the

influence that negative life experiences and SA may have on the way people communicate across the lifespan.

Table 1. LIWC's Word Categories

Category	Measure	Example Words
First-person pronouns	Frequency of first-person pronouns	<i>I, my, me</i>
Emotion words	Frequencies of positive and negative emotion words	Positive - <i>happy, joyful</i> Negative - <i>worthless, hate</i>
Causal words	Frequency of causal words	<i>because, infer, thus</i>
Insight words	Frequency of insight words	<i>realize, see, understand</i>

Table 2.

Correlation Matrix for NLE, SA Dimensions, and Language Use in WPI

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. NLE Growth	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2. NLE Magnitude	-.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3. Overall SA	-.07	-.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4. Physical	-.20*	-.27**	.34**	--	--	--	--	--	--	--	--	--	--	--	--	--
5. Emotional Maturity	.05	-.11	.56**	.29**	--	--	--	--	--	--	--	--	--	--	--	--
6. Knowledge	-.04	-.09	.11	.23*	.62**	--	--	--	--	--	--	--	--	--	--	--
7. Coping Abilities	.07	-.05	.49**	.24*	.60**	.38**	--	--	--	--	--	--	--	--	--	--
8. Social Skills	-.17	-.19*	.44**	.18	.61**	.54**	.42**	--	--	--	--	--	--	--	--	--
9. Wisdom	-.03	-.12	.30**	.23*	.67**	.74**	.44**	.53**	--	--	--	--	--	--	--	--
10. Peer Compare	-.22*	.02	-.40**	-.14	-.35**	-.13	-.21*	-.23*	-.33**	--	--	--	--	--	--	--
11. "I" only	-.02	-.14	-.08	-.03	-.12	-.10	-.09	.06	-.06	.05	--	--	--	--	--	--
12. First-Person Pronouns	.16	.02	.02	.09	-.11	-.18	-.03	-.16	-.07	.04	.44**	--	--	--	--	--
13. Positive Words	.15	-.04	-.18	-.13	.01	.06	-.05	.02	.12	.08	.41**	.35**	--	--	--	--

14. Negative Words	.12	-.07	.05	-.07	-.06	-.02	.01	-.03	.12	-.18	.23*	.29**	.14	--	--	--
15. Insight Words	.11	.10	.07	-.09	-.001	-.01	.14	.04	.04	-.05	.16	.21*	.16	.37**	--	--
16. Causal Words	.11	-.07	-.02	.09	-.11	-.08	.01	-.09	-.04	-.11	.19*	.295**	.24*	.42**	.36**	--

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

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

Table 3.

Correlation Matrix for NLE, SA Dimensions, and Language Use in WP2

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. NLE Growth	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2. NLE Magnitude	-.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3. Overall SA	-.07	-.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4. Physical	-.20*	-.27**	.34**	--	--	--	--	--	--	--	--	--	--	--	--	--
5. Emotional Maturity	.05	-.11	.56**	.29**	--	--	--	--	--	--	--	--	--	--	--	--
6. Knowledge	-.04	-.09	.11	.23*	.62**	--	--	--	--	--	--	--	--	--	--	--
7. Coping Abilities	.07	-.05	.49**	.24*	.60**	.38**	--	--	--	--	--	--	--	--	--	--
8. Social Skills	-.17	-.19*	.44**	.18	.61**	.54**	.42**	--	--	--	--	--	--	--	--	--
9. Wisdom	-.03	-.12	.30**	.23*	.67**	.74**	.44**	.53**	--	--	--	--	--	--	--	--
10. Peer Compare	-.22*	.02	-.40**	-.14	-.35**	-.13	-.21*	-.23*	-.33**	--	--	--	--	--	--	--
11. "I" only	.05	.18	.05	-.02	.03	-.08	.03	-.04	-.02	-.03	--	--	--	--	--	--
12. First-Person Pronouns	.01	.12	-.06	.02	-.09	-.22*	-.03	-.18	-.15	-.007	.04	--	--	--	--	--
13. Positive Words	-.15	-.19	-.002	-.003	-.02	.04	-.098	.03	-.07	-.02	-.12	-.12	--	--	--	--

14. Negative Words	-.09	-.18	-.08	.009	-.27**	-.11	-.14	-.24*	-.14	.12	-.11	.21*	-.05	--	--	--
15. Insight Words	.15	-.11	-.003	-.06	-.01	-.05	.02	-.09	.03	-.11	.34**	-.09	.22*	-.05	--	--
16. Causal Words	.08	.13	-.07	-.12	-.01	-.11	.03	-.05	-.005	.11	-.03	.19*	-.02	-.095	.09	--

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

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

Appendix A: Consent Form



University of Hawai'i Consent to Participate in a Research Project

Dori Yeh, Student Investigator

Project title: The Influence of Negative Life Events on Young Adults' Subjective Aging and Communication

Aloha! My name is Dori Yeh and you are invited to take part in a research study. I am a graduate student at the University of Hawai'i at Mānoa in the Department of Communicology. As part of the requirements for earning my graduate degree, I am doing a research study for my thesis. In order to be eligible to participate in this study, you must have to have experienced negative life event or situation that you have worked through or dealt with.

What am I being asked to do?

If you participate in this project, you will be asked to respond in writing to two open-ended questions and then fill out a survey.

Taking part in this study is your choice.

Your participation in this project is completely voluntary. You may stop participating at any time. If you stop being in the study, there will be no penalty or loss.

Why is this study being done?

The purpose of my project is to examine the influence negative life experiences may have on people.

What will happen if I decide to take part in this study?

The study will consist of two open-ended writing prompts and approximately 10 closed-ended questions. It will take approximately 30 minutes. The writing prompts will ask you to write about a negative life experience(s) you have worked through. The survey is accessed on a website to which I will provide you a link.

What are the risks and benefits of taking part in this study?

I believe there is little risk to you for participating in this research project. You may become stressed or uncomfortable answering any of the survey questions. If you do become stressed or uncomfortable, you can skip the question or take a break. You can also stop taking the survey or you can withdraw from the study altogether. If you feel stressed and/or uncomfortable while participating in this study, please refer to the UH Counseling and Student Development Center if you would like to talk with someone – <http://manoa.hawaii.edu/counseling/>.

There will be no direct benefit to you for participating in this survey. The results of this project may help contribute to the growing research on the influence negative life events have on young adults.

Confidentiality and Privacy:

I will not ask you for any personal information, such as your name or address. Please do not include any personal information in your survey responses. I will keep all study data secure in a

locked filing cabinet in a locked office/encrypted on a password protected computer. Only my University of Hawai'i advisor and I will have access to the information.

Compensation:

You will receive 0.5 SONA credits for your time and effort in participating in this study.

Future Research Studies:

Identifiers will be removed from your identifiable private information. After removal of identifiers, the data may be used for future research studies or distributed to another investigator for future research studies and we will not seek further approval from you for these future studies.

Questions: If you have any questions about this study, please call or email me at 808-728-2240/doriyeh@hawaii.edu. You may also contact my faculty advisor, Dr. Jessica Gasiorek, at 808-956-8407/gasiorek@hawaii.edu. You may contact the UH Human Studies Program at 808.956.5007 or uhirb@hawaii.edu to discuss problems, concerns and questions, obtain information, or offer input with an informed individual who is unaffiliated with the specific research protocol. Please visit <http://go.hawaii.edu/jRd> for more information on your rights as a research participant.

To Access the Survey: Clicking next to the first page implies your consent to participate in this study.

Please print or save a copy of this page for your reference.

Appendix B: Questionnaire

The Influence of Negative Life Events on Young Adults' Subjective Aging and Communication: Questionnaire

Instruction: The following is a definition of *negative life events*. Please read this definition before proceeding to the next portion of this study.

Negative life events (NLE) are situations that impact your life in a negative way at the time of their occurrence. Experiencing NLE can cause or lead to significant adversity, hardship, and/or loss in your life. NLE might also be disruptive to your life. For example, your negative experience may have caused you to abruptly change how you lived your life in ways that you didn't want it to. Experiencing NLE can also make you feel threatened at the time of their occurrence. For example, you might have felt like your future was at stake because of how much you could have lost as a result of what had happened. You might also felt like you had lost a sense of who you were. An NLE could also be unexpected. For example, your negative experience may have happened all of a sudden, or be a situation you never would have expected to face or deal with.

Think about a negative life event or experience from your past that you feel like you have worked through or have dealt with. On the next two pages, you will be asked to write about this event.

- Writing prompt #1: Describe a negative life event or experience from your past that you feel that you have worked through or have dealt with.

- Writing prompt #2: If the same life event or experience happened to someone close to you (e.g., family, friend, significant other), what would you say to them (e.g., advice, words of wisdom)?

Demographic information

- What is your chronological age?
- What is your gender?
 - Male
 - Female
 - Identified outside the gender binary. If comfortable, please specify: _____
- What is your ethnicity? Please select all that apply.
 - Caucasian
 - Hispanic or Latino
 - Black/African American
 - Native American or American Indian
 - Asian or Asian-American
 - Native Hawaiian or Pacific Islander
 - Other: _____
- What is your present religion, if any?
 - Jewish
 - Roman Catholic
 - Mormon
 - Muslim
 - Seventh-Day Adventist
 - Protestant (e.g., Baptist, Presbyterian, Lutheran)
 - Christian Scientist
 - An Orthodox church such as the Greek or Russian Orthodox Church
 - Other (please specify): _____
- What is your relationship status?
 - Single (never married)
 - In a dating relationship
 - Married
 - Separated
 - Widowed
 - Divorced

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